

NUCLEAR REGULATORY COMMISSION ISSUANCES

OPINIONS AND DECISIONS OF THE NUCLEAR REGULATORY COMMISSION WITH SELECTED ORDERS

January 1, 1990 - June 30, 1990

Volume 31
Pages 1 - 604



Prepared by the
Division of Freedom of Information and Publications Services
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(301/492-8925)

COMMISSIONERS

**Kenneth M. Carr, Chairman
Thomas M. Roberts
Kenneth C. Rogers
James R. Curtiss
Forrest J. Remick**

**James M. Taylor, Executive Director for Operations
William C. Parler, General Counsel**

**Christine N. Kohl, Chairman, Atomic Safety & Licensing Appeal Panel
B. Paul Cotter, Chief Administrative Judge, Atomic Safety & Licensing Board Panel**

ATOMIC SAFETY AND LICENSING APPEAL PANEL

Christine N. Kohl, Chairman

Members

Alan S. Rosenthal
Dr. W. Reed Johnson
Thomas S. Moore
Howard A. Wilber
G. Paul Bollwerk, III

ATOMIC SAFETY AND LICENSING BOARD PANEL

B. Paul Cotter,* *Chief Administrative Judge*
Robert M. Lazo,* *Deputy Chief Administrative Judge (Executive)*
Frederick J. Shon,* *Deputy Chief Administrative Judge (Technical)*

Administrative Law Judges

Ivan W. Smith*
Morton B. Margulies*

Members

Dr. George C. Anderson
Charles Bechhoefer*
Peter B. Bloch*
Glenn O. Bright
Dr. A. Dixon Callihan
James H. Carpenter*
Dr. Richard F. Cole*
Dr. George A. Ferguson
Dr. Harry Foreman
Dr. Richard F. Foster
John H. Frye III*

James P. Gleason
Dr. Cadet H. Hand, Jr.
Dr. Jerry Harbour*
Dr. David L. Hetrick
Ernest E. Hill
Dr. Frank F. Hooper
Elizabeth B. Johnson
Dr. Walter H. Jordan
Dr. Michael A. Kirk-Duggan
Dr. Jerry R. Kline*
Dr. James C. Lamb III

Gustave A. Linenberger*
Dr. Emmeth A. Luebke
Dr. Kenneth A. McCollom
Gary L. Milhollin
Marshall E. Miller
Dr. Oscar H. Paris*
Dr. David R. Schink
Dr. Martin J. Steindler
Seymour Wenner
Sheldon J. Wolfe

*Permanent panel members

PREFACE

This is the thirty-first volume of issuances (1 - 604) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Appeal Boards, Atomic Safety and Licensing Boards, and Administrative Law Judges. It covers the period from January 1, 1990 to June 30, 1990.

Atomic Safety and Licensing Boards are authorized by Section 191 of the Atomic Energy Act of 1954. These Boards, comprised of three members conduct adjudicatory hearings on applications to construct and operate nuclear power plants and related facilities and issue initial decisions which, subject to internal review and appellate procedures, become the final Commission action with respect to those applications. Boards are drawn from the Atomic Safety and Licensing Board Panel, comprised of lawyers, nuclear physicists and engineers, environmentalists, chemists, and economists. The Atomic Energy Commission first established Licensing Boards in 1962 and the Panel in 1967.

Beginning in 1969, the Atomic Energy Commission authorized Atomic Safety and Licensing Appeal Boards to exercise the authority and perform the review functions which would otherwise have been exercised and performed by the Commission in facility licensing proceedings. In 1972, that Commission created an Appeal Panel, from which are drawn the Appeal Boards assigned to each licensing proceeding. The functions performed by both Appeal Boards and Licensing Boards were transferred to the Nuclear Regulatory Commission by the Energy Reorganization Act of 1974. Appeal Boards represent the final level in the administrative adjudicatory process to which parties may appeal. Parties, however, are permitted to seek discretionary Commission review of certain board rulings. The Commission also may decide to review, on its own motion, various decisions or actions of Appeal Boards.

The Commission also has Administrative Law Judges appointed pursuant to the Administrative Procedure Act, who preside over proceedings as directed by the Commission.

The hardbound edition of the Nuclear Regulatory Commission Issuances is a final compilation of the monthly issuances. It includes all of the legal precedents for the agency within a six-month period. Any opinions, decisions, denials, memoranda and orders of the Commission inadvertently omitted from the monthly softbounds and any corrections submitted by the NRC legal staff to the printed softbound issuances are contained in the hardbound edition. Cross references in the text and indexes are to the NRCI page numbers which are the same as the page numbers in this publication.

Issuances are referred to as follows: Commission--CLI, Atomic Safety and Licensing Appeal Boards--ALAB, Atomic Safety and Licensing Boards--LBP, Administrative Law Judges--ALJ, Directors' Decisions--DD, and Denial of Petitions for Rulemaking--DPRM.

The summaries and headnotes preceding the opinions reported herein are not to be deemed a part of those opinions or to have any independent legal significance.

CONTENTS

Issuances of the Nuclear Regulatory Commission

HOUSTON LIGHTING AND POWER COMPANY

(South Texas Project, Units 1 and 2)

Dockets 50-448, 50-449

Order, CLI-90-1, February 8, 1990 131

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, *et al.*

(Seabrook Station, Units 1 and 2)

Dockets 50-443-OL, 50-444-OL

Memorandum and Order, CLI-90-2, March 1, 1990 197

Memorandum and Order, CLI-90-3, March 1, 1990 219

Order, CLI-90-6, June 8, 1990 483

ROCKWELL INTERNATIONAL CORPORATION

(Rocketdyne Division)

Docket 70-25-ML

Memorandum and Order, CLI-90-5, April 13, 1990 337

VERMONT YANKEE NUCLEAR POWER CORPORATION

(Vermont Yankee Nuclear Power Station)

Docket 50-271-OLA

Memorandum and Order, CLI-90-4, April 5, 1990 333

Issuances of the Atomic Safety and Licensing Appeal Boards

ADVANCED MEDICAL SYSTEMS, INC.

(One Factory Row, Geneva, OH 44041)

Docket 30-16055-SP

Decision, ALAB-929, March 30, 1990 271

GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION

(Three Mile Island Nuclear Station, Unit 2)

Docket 50-320-OLA

Decision, ALAB-926, January 19, 1990 1

KERR-McGEE CHEMICAL CORPORATION

(West Chicago Rare Earths Facility)

Docket 40-2061-ML

Memorandum, ALAB-928, March 27, 1990 263

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, *et al.*

(Seabrook Station, Units 1 and 2)

Dockets 50-443-OL, 50-444-OL

Memorandum and Order, ALAB-927, February 26, 1990 137

Decision, ALAB-932, May 31, 1990	371
Memorandum and Order, ALAB-933, June 7, 1990	491
Dockets 50-443-OL-1, 50-444-OL-1	
Memorandum and Order, ALAB-930, April 2, 1990	343
SAFETY LIGHT CORPORATION, <i>et al.</i>	
(Bloomsburg Site Decontamination)	
Dockets 030-05980, 030-05981, 030-05982, 030-08335, 030-08444	
Memorandum and Order, ALAB-931, April 23, 1990	350

Issuances of the Atomic Safety and Licensing Boards

ADVANCED MEDICAL SYSTEMS, INC.	
(One Factory Row, Geneva, OH 44041)	
Docket 30-16055-SP	
Memorandum and Order, LBP-90-17, June 12, 1990	540
BALTIMORE GAS AND ELECTRIC COMPANY	
(Clvert Cliffs Independent Spent Fuel Storage Installation)	
Dockets 72-8, 50-317, 50-318	
Memorandum and Order, LBP-90-13, May 15, 1990	456
BASIN TESTING LABORATORY, INC. <i>dba</i> BASIN SERVICES, INC.	
Docket 15000033-SC/CivP	
Memorandum and Order, LBP-90-14, May 30, 1990	458
CLEVELAND ELECTRIC ILLUMINATING COMPANY, <i>et al.</i>	
(Perry Nuclear Power Plant, Unit 1)	
Docket 50-440-OLA	
Memorandum and Order, LBP-90-15, June 11, 1990	501
CURATORS OF THE UNIVERSITY OF MISSOURI	
Dockets 70-00270, 30-02278-MLA	
Memorandum and Order, LBP-90-18, June 15, 1990	559
Memorandum and Order, LBP-90-22, June 29, 1990	592
FLORIDA POWER AND LIGHT COMPANY	
(Turkey Point Nuclear Generating Plant, Units 3 and 4)	
Dockets 50-250-OLA-4, 50-251-OLA-4	
Memorandum and Order, LBP-90-4, January 16, 1990	54
Memorandum and Order, LBP-90-5, January 16, 1990	73
Dockets 50-250-OLA-5, 50-251-OLA-5	
Memorandum and Order, LBP-90-16, June 15, 1990	509
KERR-McGEE CHEMICAL CORPORATION	
(West Chicago Rare Earths Facility)	
Docket 40-2061-ML	
Initial Decision, LBP-90-9, February 13, 1990	150

NORTHERN STATES POWER COMPANY

(Pathfinder Atomic Plant)

Docket 30-05004-MLA

Memorandum and Order, LBP-90-3, January 10, 1990 40

Order Terminating Proceeding, LBP-90-19, June 21, 1990 579

PORTER MEMORIAL HOSPITAL

(Valparaiso, Indiana)

Docket 030-12150

Prehearing Conference Order, LBP-90-21, June 26, 1990 589

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, *et al.*

(Seabrook Station, Units 1 and 2)

Dockets 50-443-OL, 50-444-OL

Memorandum and Order, LBP-90-1, January 8, 1990 19

Memorandum and Order, LBP-90-2, January 9, 1990 38

Memorandum and Order, LBP-90-12, May 3, 1990 427

Memorandum and Order, LBP-90-20, June 27, 1990 581

ROCKWELL INTERNATIONAL CORPORATION

(Rocketdyne Division)

Docket 70-25

Memorandum and Order, LBP-90-10, March 19, 1990 293

Memorandum and Order, LBP-90-11, March 30, 1990 320

SAFETY LIGHT CORPORATION, *et al.*

(Bloomsburg Site Decontamination)

Dockets 030-05980, 030-05981, 030-05982, 030-08335, 030-08444

Order, LBP-90-7, January 29, 1990 116

Order, LBP-90-8, February 8, 1990 143

ST. MARY MEDICAL CENTER—HOBART and

ST. MARY MEDICAL CENTER—GARY

Dockets 030-31379-OM, 030-01615-OM

Prehearing Conference Order, LBP-90-21, June 26, 1990 589

VERMONT YANKEE NUCLEAR POWER CORPORATION

(Vermont Yankee Nuclear Power Station)

Docket 50-271-OLA-4

Memorandum and Order, LBP-90-6, January 26, 1990 85

Issuances of Directors' Decisions

CONSUMERS POWER COMPANY

(Big Rock Point Plant)

Docket 50-155

Director's Decision, DD-90-2, May 4, 1990 461

FLORIDA POWER AND LIGHT COMPANY

(Turkey Point Nuclear Generating Plant, Units 3 and 4)

Dockets 50-250, 50-251

Director's Decision, DD-90-1, March 22, 1990 327

PACIFIC GAS AND ELECTRIC COMPANY

(Diablo Canyon Nuclear Power Plant, Units 1 and 2)

Dockets 50-275-A, 50-323-A

Director's Decision, DD-90-3, June 14, 1990..... 595

Issuances of Denials of Petitions for Rulemaking

CITIZENS TASK FORCE OF CHAPEL HILL, *et al.*

Dockets PRM 50-31, PRM 50-45, PRM 50-46

Denial of Petition for Rulemaking, DPRM-90-1, February 13, 1990 ... A-1

SIERRA CLUB

Docket PRM 40-23

Denial of Petition for Rulemaking, DPRM-90-2, June 8, 1990..... A-1

Indexes

Case Name Index	I-1
Legal Citations Index	I-5
Cases	I-5
Regulations	I-19
Statutes	I-31
Others	I-35
Subject Index	I-37
Facility Index	I-49

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Thomas S. Moore, Chairman
Christine N. Kohl
Howard A. Wilber

In the Matter of

Docket No. 50-320-OLA
(Disposal of Accident-
Generated Water)

GENERAL PUBLIC UTILITIES
NUCLEAR CORPORATION
(Three Mile Island Nuclear
Station, Unit 2)

January 19, 1990

The Appeal Board affirms the Licensing Board's decision, LBP-89-7, 29 NRC 138 (1989), authorizing a license amendment for the accident-damaged Unit 2 reactor at Three Mile Island. The amendment will permit the evaporation by forced heating over a one- to two-year period of the water that has accumulated onsite from the accident and ensuing decontamination activities.

RULES OF PRACTICE: BRIEFS

"An appellant's brief must clearly identify the errors of fact and law that are the subject of the appeal. For each issue appealed, the precise portion of the record relied upon in support of the assertion of error must also be provided." 10 C.F.R. § 2.762(d)(1).

RULES OF PRACTICE: BRIEFS

An appellant's "brief must contain sufficient information and cogent argument to alert the other parties and the appellate tribunal of the precise nature of and support for the appellant's claims." *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), ALAB-843, 24 NRC 200, 204 (1986). *Accord id.*, ALAB-856, 24 NRC 802, 805 (1986); *id.*, ALAB-837, 23 NRC 525, 533-34 (1986); *Pennsylvania Power and Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-693, 16 NRC 952, 955-57 (1982).

RULES OF PRACTICE: BRIEFS

APPEAL BOARD(S): STANDARDS OF REVIEW

The Appeal Board will not generally consider matters that are not adequately briefed. Any party who has insufficiently articulated its claims must bear full responsibility for any possible misapprehension of those arguments caused by the inadequacies of its brief. *See Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), ALAB-872, 26 NRC 127, 131-32 (1987); *Wisconsin Electric Power Co.* (Point Beach Nuclear Plant, Units 1 and 2), ALAB-739, 18 NRC 335, 338 n.4 (1983).

RULES OF PRACTICE: BRIEFS

The Appeal Board does not hold *pro se* parties to the same standard for briefs as parties represented by counsel. *See Public Service Electric & Gas Co.* (Salem Nuclear Generating Station, Unit 1), ALAB-650, 14 NRC 43, 50 n.7 (1981), *aff'd sub nom. Township of Lower Alloways Creek v. Public Service Electric & Gas Co.*, 687 F.2d 732 (3d Cir. 1982).

RULES OF PRACTICE: BRIEFS; WAIVER

Issues or arguments that are not made readily apparent or comprehensible by an intervenor's brief will be deemed to be waived and accordingly will not be addressed by the Appeal Board. Similarly, when intervenors do not explain what material facts are in dispute, why those facts are material, and why the Licensing Board's treatment of those issues was in error, the issues are deemed to be waived.

APPEAL BOARD(S): STANDARD OF REVIEW

RULES OF PRACTICE: APPELLATE REVIEW

In reviewing factual findings, it is well settled that the Appeal Board is "not free to disregard the fact that the Licensing Boards are the Commission's primary fact finding tribunals." *Northern Indiana Public Service Co.* (Bailly Generating Station, Nuclear 1), ALAB-303, 2 NRC 858, 867 (1975).

APPEAL BOARD(S): SCOPE OF REVIEW

RULES OF PRACTICE: APPELLATE REVIEW

The Appeal Board will only "reject or modify findings of the Licensing Board if, after giving its decision the probative force it intrinsically commands, [the Appeal Board is] convinced that the record compels a different result." *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 357 (1975). The Appeal Board "must be persuaded that the record evidence as a whole compels a different conclusion and [the Board] will not overturn the hearing judge's findings simply because [the Board] might have reached a different result" *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit No. 1), ALAB-881, 26 NRC 465, 473 (1987).

RULES OF PRACTICE: BURDEN OF PROOF; BURDEN OF GOING FORWARD

The burden of going forward with evidence to support a contention that a license or amendment should not be issued is on the party asserting such a contention. However, this burden must be distinguished from the ultimate burden of proof on the issue of whether a license or license amendment should be issued, which is on the applicant. *See Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 345 (1973).

NEPA: FINAL ENVIRONMENTAL STATEMENT (LICENSING BOARD DECISION AS AMENDMENT)

The Licensing Board's decision, its supporting adjudicatory record, and the supplement to the Final Programmatic Impact Statement form the complete environmental record of decision. 10 C.F.R. §§ 51.102(c), 51.103(c). *See Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 705-06 (1985), *aff'd in part and review otherwise declined*, CLI-86-5, 23 NRC 125 (1986), *remanded in part on other grounds sub nom. Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719 (3d Cir. 1989).

APPEARANCES

Frances Skolnick, Lancaster, Pennsylvania, for the joint intervenors, Three Mile Island Alert, Inc., and Susquehanna Valley Alliance.

Thomas A. Baxter, Washington, D.C. (with whom Ernest L. Blake, Jr., David R. Lewis, and Maurice A. Ross, Washington, D.C., were on the brief), for the applicant, General Public Utilities Nuclear Corporation.

Stephen H. Lewis (Colleen P. Woodhead was on the brief) for the Nuclear Regulatory Commission staff.

DECISION

The joint intervenors, Susquehanna Valley Alliance and Three Mile Island Alert, Inc., have appealed the Licensing Board's decision authorizing a license amendment for the accident-damaged Unit 2 reactor at Three Mile Island (TMI) belonging to the applicant, General Public Utilities Nuclear Corporation (GPUN).¹ The amendment at issue has the effect of permitting the applicant to evaporate, by forced heating over a one- to two-year period, the large volume of water that has accumulated onsite from the accident and ensuing decontamination activities. For the reasons that follow, we affirm the Licensing Board's authorization of the license amendment.

I.

The 1979 accident at TMI Unit 2 and subsequent cleanup resulted in the accumulation at the plant of some 2.3 million gallons of radioactively contaminated water, tagged accident-generated water or AGW. By a series of actions after the accident, the Commission prohibited the disposal of the AGW and, since the accident, it has been stored in numerous locations at the plant. The Commission also authorized the processing of the AGW through specially designed demineralizer systems (called SDS and Epicor II) to reduce its radioactive content. With one exception, these systems leave only trace amounts of the radionuclides in the AGW. The demineralizer systems cannot remove tritium, which, as an isotope of hydrogen, replaces one of the hydrogen atoms in the water molecule to form

¹ See LBP-89-7, 29 NRC 138 (1989).

tritiated water; thus, 1,020 curies of tritium is the predominant radionuclide in the AGW.²

The agency's environmental review of the disposal of the AGW dates back to 1981 when the NRC staff, based upon then available information, addressed the impacts of the disposition of the AGW as part of the Final Programmatic Environmental Impact Statement (PEIS) on the decontamination and disposal of all radioactive wastes resulting from the accident.³ In a policy statement issued by the Commission shortly after the promulgation of the PEIS, the Commission reserved for itself the final approval of any future proposal for the disposition of the AGW.⁴ Thereafter, in 1986, the applicant proposed to the agency a plan to dispose of the AGW by forced evaporation to the atmosphere followed by solidification of the remaining evaporator bottoms for disposal at a commercial low-level waste burial facility.⁵

The staff then prepared a draft supplement to the PEIS dedicated to AGW disposal. After considering public comments on the draft, the staff issued a final supplement concluding that the applicant's proposal, along with eight other alternatives, could be implemented without significant environmental impacts.⁶ More specifically, the staff found in the final supplement that the potential health effects both to workers and the offsite public from any of the alternatives were exceedingly small.⁷ The staff also surveyed fifteen additional alternatives in the final supplement but eliminated them from detailed evaluation after finding that they were less desirable from a technical standpoint or clearly inferior to the other studied alternatives.⁸ Because the staff found that none of the appraised alternatives was clearly preferable to the applicant's proposal, it recommended approval of that proposal.⁹

² Staff Exh. 1, NUREG-0683 Supplement No. 2, "Programmatic Environmental Impact Statement Related to Decontamination and Disposal of Radioactive Wastes Resulting from March 28, 1979 Accident at Three Mile Island Nuclear Station, Unit 2" (June 1987), at 2.3, 2.6. See LBP-89-7, 29 NRC at 141 n.5.

Tritium is a naturally occurring gas with a 12.3-year half-life that is produced by cosmic ray interactions with atmospheric hydrogen. The world inventory of naturally occurring tritium is about 70 megacuries (70 MCi or 70,000,000 curies) and it is produced naturally at a rate of about 4 megacuries (4 MCi or 4,000,000 curies) per year. Tritium is also produced by fission and fusion reactions, so it is created by nuclear reactors and weapons tests. The world inventory of tritium from weapons testing reached a high of about 3.1 gigacuries (3.1 GCi or 3,100,000,000 curies) in 1963 and has been declining since that time. In the case of TMI Unit 2, the Final Environmental Impact Statement for the facility estimated that normal plant operation would release to the environment 1,110 curies of tritium a year in gaseous and liquid effluents. Tritium is used commercially in a number of consumer products such as luminous watch dials, instruments, and exit signs. Staff Exh. 1 at 2.6-2.8. See also LBP-89-7, 29 NRC at 160-61.

³ See NUREG-0683, "Final Programmatic Environmental Impact Statement Related to Decontamination and Disposal of Radioactive Wastes Resulting from March 28, 1979, Accident [at] Three Mile Island Nuclear Station, Unit 2" (March 1981) [hereinafter 1981 PEIS], at 7-1 to 7-84.

⁴ 46 Fed. Reg. 24,764 (1981).

⁵ Staff Exh. 1 at 1.1 n.(a), 3.3.

⁶ *Id.* at 6.1.

⁷ *Id.* at 5.5-5.6.

⁸ *Id.* at 3.34-3.39.

⁹ *Id.* at viii.

In response to GPUN's application for an operating license amendment to delete certain agency-imposed technical specifications prohibiting the disposal of AGW, the Commission issued a notice of opportunity for a hearing on the requested license amendment and the instant proceeding commenced.¹⁰ The Licensing Board admitted the joint intervenors as a party and the Commonwealth of Pennsylvania as an interested state.¹¹ Additionally, the Board admitted all or part of seven of the joint intervenors' proffered contentions.¹² After the completion of discovery, the applicant filed summary disposition motions, supported by the staff, addressing each of the admitted contentions. The Licensing Board granted the applicant's motions for all but portions of four issues. In a protracted opinion that parsed all of the summary disposition filings, the Licensing Board found that parts of contention 2 (evaluation of the no-action alternative), contention 3 (analysis of the AGW), contention 4b (concentration of tritium in AGW), and contention 5d (health effects of tritium in the AGW) presented disputed factual issues that must be tried.¹³ It then held six days of evidentiary hearings at which nine expert witnesses testified for the applicant, five for the staff, and two for the intervenors.

From this evidentiary record, the Licensing Board found that the applicant had demonstrated, by a preponderance of the evidence, that the forced evaporation proposal was environmentally acceptable. It found that the applicant's plan will have extremely low levels of atmospheric release that, in turn, "will have extremely small radiation exposure consequences, both to workers and the general public."¹⁴ The Board also concluded that the applicant's evaporation proposal was obviously superior to the intervenors' so-called no-action alternative.¹⁵ Accordingly, the Board authorized the grant of the license amendment.¹⁶

¹⁰ 52 Fed. Reg. 28,626 (1987).

After the joint intervenors filed their intervention petitions, the Commission issued an order stating that it would conduct an immediate effectiveness review in the event the Licensing Board authorized the license amendment so that it could determine whether the amendment should be effective during the pendency of any administrative appellate review. According to the Commission, such review would implement its earlier directive reserving to itself the final approval of any AGW disposal proposal. See Commission Order (December 3, 1987) (unpublished) at 2.

¹¹ Memorandum and Order (Memorializing Special Prehearing Conference; Ruling on Contentions; Scheduling) (January 5, 1988) (unpublished) at 20.

¹² *Id.* at 5-20.

¹³ LBP-88-23, 28 NRC 178 (1988).

¹⁴ LBP-89-7, 29 NRC at 143.

¹⁵ *Id.* at 180.

¹⁶ *Id.* at 191.

After the Licensing Board authorized the license amendment, the intervenors filed a stay application with us, which we denied in ALAB-914, 29 NRC 357 (1989). The Commission then conducted its immediate effectiveness review and found no reason to stay the effectiveness of the license amendment authorization pending completion of the administrative appellate process. CLI-89-5, 29 NRC 345, 347 (1989). The intervenors also have filed a petition for review of the Licensing Board's amendment authorization and the Commission's effectiveness decision. See *Susquehanna Valley Alliance v. NRC*, No. 89-3393 (3d Cir. June 12, 1989).

In an extended opinion, the Licensing Board examined each of the components of the expected radiation releases from the applicant's evaporation proposal. Its findings covered the risks and exposures from an accidental tank rupture release of the AGW during the evaporation process, the risks and exposures to workers in shipping and burying the evaporator bottoms, the risks and exposures from accidents in transporting the evaporator bottoms, the risks and exposures to onsite workers from the evaporation process, and the risks and exposures to the offsite population from the evaporation process. In each instance, the Board found the risks and exposures to be insignificant. In particular, the Board found that the offsite doses from the atmospheric release of the evaporated AGW "are insignificant when compared to radiation doses that people receive every day as the result of natural phenomena."¹⁷ It concluded that

the worst-case dose to the maximally exposed individual is on the order of a single day of natural background radiation and is received over a 1- to 2-year period. The additional dose to the maximally exposed individual from evaporation is far below the normal environmental dose variability, and the additional dose to the average offsite individual is thousands of times smaller.

Another way of considering these same data is that the dose to the hypothetical [maximally exposed] individual from evaporation of the AGW would be less than 10% of an additional dose a person would receive from living in a brick building each year, and is comparable to the whole-body dose an average individual in the general population receives from watching color television each year. The dose to the average individual is many hundreds of times less and thus de minimis.

The National Council on Radiation Protection and Measurements (NCRP) does not even calculate population doses when individual doses are this low because the NCRP considers them insignificant.¹⁸

The Licensing Board also scrutinized the expected radiation consequences of the intervenors' so-called no-action alternative. Because it found, in effect, that the intervenors had repeatedly changed the features of the no-action alternative during the course of discovery and the hearing, the Board analyzed the intervenors' last version, which called for treating the AGW to reduce the radionuclides other than tritium to a specified level and then storing the AGW onsite for a minimum of thirty years before final disposition.¹⁹ Under this scenario, the Licensing Board found that the purported benefits of an additional thirty years of radioactive decay of the AGW would be insignificant because the dose levels from the applicant's evaporation proposal were already so low that they fell within the range of uncertainty of dose assessment methodology and

¹⁷ LBP-89-7, 29 NRC at 151.

¹⁸ *Id.* at 152 (record citations omitted).

¹⁹ *Id.* at 154-55.

radiological monitoring.²⁰ Hence, it found that “the doses from evaporation now are already so small that any savings achieved from the Intervenor’s proposed storage period are unimportant.”²¹

After determining the extremely small size of the radiation releases from the applicant’s proposal and the no-action alternative, the Licensing Board turned to the projected health effects of such releases. In addressing these effects, the Board first examined how tritium acts in the environment, how it is taken up by plants, animals, and humans, and how the effects of tritium should be modeled and calculated.²² It then observed that to date there is no empirical evidence linking exposure to extremely low levels of radiation to health effects and that “at very low doses, such as those calculated for evaporation, adverse health effects have not been observed and the probability of occurrence could be zero.”²³ The Board noted, however, that for radiation protection purposes, the accepted practice nevertheless was to extrapolate from observed effects at high doses to arrive at risk estimates for exposures at low doses.²⁴ Relying on evidence employing risk estimates derived from this methodology, the Licensing Board found that “the upper-limit probability of a fatal cancer for the [hypothetical] maximally exposed individual is less than 1 chance in 5 million using the NRC’s calculated dose, and less than 1 chance in 2.5 million using GPUN’s calculated dose.”²⁵ With regard to the average offsite individual living within fifty miles of the plant, the Board’s finding concerning the probability of a fatal cancer as a result of the evaporation translates into odds that are many, many hundreds of times less than the odds for the maximally exposed individual.²⁶ Even though it made findings bounding the cancer risk, the Board found that it did not expect any health effects from the applicant’s proposal.²⁷ Similarly, the Licensing Board reviewed the uncontested record evidence on the likelihood of a genetic disorder in the same affected population and concluded that “the doses are simply too low to predict or expect any genetic detriment.”²⁸

Finally, the Licensing Board considered the economic costs of the applicant’s proposal and the intervenors’ no-action alternative. On balance, it found that the applicant’s proposal was obviously superior to the no-action alternative.²⁹ It then addressed the intervenors’ contentions about the tritium content of the AGW and the accuracy of applicant’s analysis of the radioactive content of the AGW.

²⁰ *Id.* at 157-58.

²¹ *Id.* at 158.

²² *Id.* at 158-66.

²³ *Id.* at 167.

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.* at 168.

²⁸ *Id.* at 176.

²⁹ *Id.* at 180.

In this regard, the Board concluded that the tritium content of the AGW had been conservatively determined and that the radionuclide content of the AGW had been characterized adequately to permit an appropriate comparison of the disposal options.³⁰ Accordingly, the Board authorized the license amendment and the intervenors now have appealed.

II.

A. Initially, we are constrained to note that the intervenors' brief is far from a model of clarity. The Commission's Rules of Practice regarding appellate briefs are unequivocal and straightforward: "[a]n appellant's brief must clearly identify the errors of fact or law that are the subject of the appeal. For each issue appealed, the precise portion of the record relied upon in support of the assertion of error must also be provided."³¹ In addition, "the brief must contain sufficient information and cogent argument to alert the other parties and the appellate tribunal of the precise nature of and support for the appellant's claims."³² We generally do not consider matters that are not adequately briefed and any party who has insufficiently articulated its appellate claims must bear full responsibility for any possible misapprehension of those arguments caused by the inadequacies of its brief.³³

Here, we agree with the complaints of both the applicant and the staff that it is very difficult to separate the wheat from the chaff in the intervenors' seventy-page appellate filing. The intervenors have not clearly identified their purported claims of error or always specified the exact portion of the record relied upon in support of their claims. Indeed, they appear often to rely upon material not in the adjudicatory record and their brief contains little meaningful analysis or explanation of why the intervenors believe the Licensing Board's decision is in error. The applicant legitimately complains that the inadequacies of the intervenors' brief deprives it of fair notice of the matters being appealed. To compensate, and, in an overabundance of caution, the applicant has even gone so far as to respond to possible arguments it has identified in the Statement of the Case portion of the intervenors' brief. The staff, to a lesser extent, has done

³⁰ *Id.* at 189.

³¹ 10 C.F.R. § 2.762(d)(1).

³² *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), ALAB-843, 24 NRC 200, 204 (1986). *Accord id.*, ALAB-856, 24 NRC 802, 805 (1986); *id.*, ALAB-837, 23 NRC 525, 533-34 (1986); *Pennsylvania Power and Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-693, 16 NRC 952, 955-57 (1982).

³³ *See Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), ALAB-872, 26 NRC 127, 131-32 (1987); *Wisconsin Electric Power Co.* (Point Beach Nuclear Plant, Units 1 and 2), ALAB-739, 18 NRC 335, 338 n.4 (1983).

much the same thing. Neither of the responding briefs, however, agrees upon all the issues the intervenors seek to raise.

We have tried to glean from the intervenors' appellate filing the essence of the major errors they allege, taking into account the fact that the intervenors' representative is not an attorney and that we do not hold such representatives to the same standard for appellate briefs as lawyers.³⁴ We will not address issues or arguments, however, that the intervenors' brief does not make readily apparent or comprehensible. Such issues will be deemed waived. Similarly, we will not create issues from the shadows of the intervenors' brief, for the intervenors bear the full responsibility for their failure to identify clearly and to brief adequately the issues they seek to raise.

B. First, the intervenors claim that the record does not support the Licensing Board's finding that the applicant's evaporation proposal is environmentally acceptable. As best we can discern from their brief, they argue this is so because neither the staff in preparing the supplement to the PEIS, nor the Licensing Board in its deliberations, evaluated the use of the applicant's disposal system (rather than the demineralizer systems) to pretreat the AGW in order to reduce the concentration of radionuclides, other than tritium, before evaporating the AGW.³⁵ The intervenors' argument is without merit.

In its supplement to the PEIS on the applicant's evaporation proposal, the staff based its assessment of environmental impacts on certain "base case" concentrations of all the radionuclides contained in the AGW.³⁶ Similarly, the applicant in presenting its evidence below, and the Licensing Board in making its findings, employed the same figures. The base case numbers reflect the concentration of radionuclides in the AGW after it has been processed through the demineralizer systems that remove to trace levels, with the exception of tritium, the radioactive material in the AGW.³⁷ As the Licensing Board found, prior to disposal, further processing of approximately thirty-one percent of the 2.3 million gallons of AGW stored in various locations in the plant will be necessary to achieve these base case levels.³⁸ The Board also found that the applicant's proposed AGW disposal system is designed to permit the evaporation section to be operated independently of the vaporizer in a closed-cycle batch method of operation to permit the further processing of the AGW inventory to

³⁴ See *Public Service Electric & Gas Co. (Salem Nuclear Generating Station, Unit 1)*, ALAB-650, 14 NRC 43, 50 n.7 (1981), *aff'd sub nom. Township of Lower Alloways Creek v. Public Service Electric & Gas Co.*, 687 F.2d 732 (3d Cir. 1982).

³⁵ SVA/TMIA's Brief in Support of Notification to File an Appeal, and a Request for Oral Argument Concerning this Appeal (April 7, 1989) [hereinafter *Intervenors' Brief*] at 16-18.

³⁶ Staff Exh. 1 at 2.3, Table 2.2.

³⁷ *Id.* at 2.2.

³⁸ LBP-89-7, 29 NRC at 146.

The portion of the AGW inventory that must be treated further is primarily the AGW used for cleanup activities. See Staff Exh. 1 at 2.2.

achieve base case levels of radioactivity.³⁹ Further, the Board found that the same system operating limits are applicable to the operation of the AGW disposal system regardless of the method used to process the AGW to base case levels before it is processed for atmospheric release. It correctly found, therefore, that the method of pretreating the AGW is irrelevant to ensuring conformance with the final criteria for atmospheric release and to the resulting dose calculations.⁴⁰ For this reason, the intervenors' argument must fail.

In an argument similar to their first one, the intervenors also assert that neither the staff nor the Licensing Board reevaluated what the intervenors claim is the increased exposure to workers using the evaporator to pretreat the AGW and the increased risk to workers transporting the waste from such activity. Rather than cite any evidence to support their charge of increased occupational exposure, the intervenors simply allege that "[o]bviously if the water is more radioactive the risk of exposure could be greater."⁴¹ But the record clearly shows that the occupational exposure estimates are not affected by the use of the evaporator to pretreat the AGW.⁴² Indeed, the dose rates used by the applicant in calculating the occupational exposures for evaporating the AGW, and those accepted by the Licensing Board in its findings, are so conservatively estimated that the influent AGW concentrations could be tripled and still produce dose rates less than those assumed by the applicant.⁴³ Further, the record shows that no additional waste is created by using the evaporator in a closed-cycle mode to pretreat the AGW.⁴⁴ Hence, the record evidence is contrary to the intervenors' unsupported assertion.

³⁹ LBP-89-7, 29 NRC at 146.

As described by the Licensing Board,

[t]he processed water disposal program consists of: (a) a dual-evaporator system designed to evaporate the processed water at a rate of 5 gallons per minute (gpm); (b) an electric-powered vaporizer designed to raise the evaporator distillate temperature to 240°F and to release the resultant steam to the atmosphere via a flash tank and exhaust stack; (c) a waste concentrator designed to produce the final compact waste form; and (d) a packaging section designed to prepare the resultant waste for shipment consistent with commercial low-level waste disposal regulations.

All AGW will be processed through the evaporator prior to release to the environment via vaporization. The designed flexibility of the disposal system permits the evaporator assembly to be decoupled from the vaporizer assembly. In this configuration, the evaporator operates independently of the vaporizer and processes the water in a batch-cycle method of operation. The distillate from the evaporator is pumped to a separate staging tank, and the feed to the vaporizer is supplied from an independent staging tank. Conversely, if the vaporizer is coupled to the evaporator during operations, the water is processed in a continuous-flow operation. The distillate from the evaporator is fed directly to the vaporizer for atmospheric discharge.

Id. at 145-46 (record citations omitted).

⁴⁰ *Id.* at 146-47.

In this regard, the Licensing Board found that "[t]he activity releases occurring from evaporator discharges of Base Case water result in releases that are a small fraction of the releases permitted by existing regulatory requirements for the operation of a nuclear power plant." *Id.* at 146 (record citation omitted).

⁴¹ Intervenors' Brief at 18.

⁴² Tarpinian, Tr. 507, 513-14.

⁴³ *Id.* at 501; LBP-89-7, 29 NRC at 148.

⁴⁴ Buchanan, Tr. 529-30.

C. The intervenors also complain that the Licensing Board erred in granting the applicant's motions for summary disposition of their contentions 4 and 6.⁴⁵ The intervenors' disjointed argument on this point, however, is devoid of any useful analysis of the Licensing Board's summary disposition ruling. They also fail to assign any comprehensible reasons as to how the lower Board erred. For example, we are told that the Board granted summary disposition on their contentions "in spite of the fact that JI [joint intervenors] had presented material facts controverting Licensee's facts that there were no material issues of fact to be heard."⁴⁶ But nowhere in their brief do the intervenors explain precisely what material facts were in dispute, why those facts were material, and why the Licensing Board's treatment of the issues was in error. Nor are such errors obvious from reading the Licensing Board's detailed treatment of the parties' summary disposition filings on these contentions.⁴⁷ Further, the intervenors assert that "[t]he Board's ruling contradicted the rules governing Summary Disposition as described by the Board themselves in their order."⁴⁸ Here again, the intervenors fail to identify the summary disposition principles the Board purportedly violated and to explain how each of the Board's determinations violated such principles. In the circumstances, we are constrained to find that the intervenors have inadequately briefed these issues. Hence, they are deemed waived.

D. The heading of the intervenors' next argument reads: "The Record Does Not Support the Finding that the Radionuclide Concentration in the Water had been Adequately Characterized."⁴⁹ In the argument that follows, the intervenors rely upon documents such as the draft PEIS and various applicant-NRC correspondence that is not in the record. Further, they largely ignore the evidence that is in the record except to make repeated out-of-context references to it as alleged support for a series of rambling, unconnected statements all apparently intended to show that the Licensing Board's entire findings on the tritium content of the AGW are wrong.⁵⁰ Even though the intervenors do not identify any specific Licensing Board finding or focus on any of the evidence relied upon by the Board in making its determinations, it is apparent that they are attempting to challenge the Board's factual findings.

⁴⁵ As admitted by the Licensing Board, intervenors' contention 4 had three subparts. Although it is far from clear, our best guess is that the intervenors' claim is aimed at the Licensing Board's ruling with regard to contention 4(b). That contention states that "[s]ufficient evidence has not been provided to ensure that the evaporator can filter out transuranics, other radionuclides as well as chemicals to protect the public health and safety." LBP-88-23, 28 NRC at 202, 218. The Licensing Board did, however, deny summary disposition with respect to that portion of contention 4(b) dealing with the concentration of tritium in one of the processed water storage tanks. *Id.* at 204.

⁴⁶ Intervenors' Brief at 20.

⁴⁷ See LBP-88-23, 28 NRC at 203-04, 218-25.

⁴⁸ Intervenors' Brief at 20-21.

⁴⁹ *Id.* at 27.

⁵⁰ *Id.* at 27-37.

In reviewing factual findings, it is well settled that "we are not free to disregard the fact that the Licensing Boards are the Commission's primary fact finding tribunals."⁵¹ Thus, we will only "reject or modify findings of the Licensing Board if, after giving its decision the probative force it intrinsically commands, we are convinced that the record compels a different result."⁵² Stated another way, "we must be persuaded that the record evidence as a whole compels a different conclusion and we will not overturn the hearing judge's findings simply because we might have reached a different result had we been the initial fact finder."⁵³

Here, the Licensing Board's findings on the tritium content of the AGW (contention 4b) and the accuracy of the measurement of the radioactive content of the AGW (contention 3) are thoroughly detailed, fully explained, and amply supported by the record evidence.⁵⁴ Our reading of the record satisfies us that the evidence presented by the expert witnesses of the applicant and the staff was essentially undisputed.

In its findings, the Licensing Board thoroughly rehearsed how the applicant determined that the AGW contained 1020 curies of tritium. The Board found that

[t]he most recent [1986] sample data from 25 bodies of water were used and the concentration of each body of water were [sic] then multiplied by its corresponding tank volume to yield the amount of tritium present in each tank. The total inventories of tritium in each tank were then added to obtain the total curies of tritium in the AGW. The result was a total of 1180 curies of tritium in the AGW. Correcting the data from July 1986 to October 1988 for radioactive decay, a conservative total tritium curie content of 1020 was estimated. This estimate is conservative because reductions for normal evaporative losses of 12.5 curies per calendar quarter were not included.

⁵¹ *Northern Indiana Public Service Co.* (Bailly Generating Station, Nuclear 1), ALAB-303, 2 NRC 858, 867 (1975).

⁵² *Niagara Mohawk Power Corp.* (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 357 (1975).

⁵³ *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit No. 1), ALAB-881, 26 NRC 465, 473 (1987).

⁵⁴ LBP-89-7, 29 NRC at 180-89.

Intermingled with their claims concerning the purported inadequate characterization of the radionuclides in the AGW is the intervenors' apparent complaint about the characterization of transuranics in the AGW. Intervenors' Brief at 28-30. Among other things, intervenors' contention 5d concerned the alleged inadequate characterization of transuranics in the AGW. The applicant, supported by the staff, moved for summary disposition of this portion of contention 5d. In doing so, they both demonstrated that the transuranics had been addressed in the staff's and the applicant's analyses and that the impacts of the transuranics were insignificant. The Licensing Board granted the applicant's summary disposition motion on this aspect of contention 5d. LBP-88-23, 28 NRC at 216-18. Interestingly, in opposing the applicant's motion, the intervenors did not address their own allegations concerning transuranics. *Id.* at 216.

On appeal, the intervenors again appear to raise this issue, although nowhere in their brief do they even mention the Licensing Board's resolution of contention 5d or describe how the Board's summary disposition ruling was in error. Nor is any error readily apparent from the Licensing Board's opinion. As should be evident, the intervenors' briefing of the characterization of transuranics in the AGW is woefully insufficient and this issue is deemed waived.

In addition to this 1986 sampling effort, GPUN has since analyzed about 5000 routine samples of AGW, including measurements of tritium; these measurements confirm the 1986 data. In conjunction with the routine samples analyzed by the GPUN laboratory, periodic independent Quality Control analyses are also performed. The QC techniques include round-robin, blind, duplicate, replicate, spiked, and split samples. In this way, the accuracy and precision of the entire analytical process is verified frequently. In addition, a sample was analyzed independently by GPUN's chemistry department and by the U.S. Department of Energy's Radiological and Environmental Sciences Laboratory ("RESL"), Idaho Falls, Idaho, on behalf of the NRC. This analysis, as discussed further below, is consistent with the GPUN data.⁵⁵

The Board then set out the record evidence and explained its findings that empirical evidence from sampling data, rather than model predictions, was the most accurate method for determining the content of the AGW.⁵⁶ It explained why the determination of 1020 curies of tritium used by the applicant and the staff in their analyses was an upper-bound figure and it then reviewed the evidence underlying its finding that this number also was a conservative one that "more than compensates for the theoretical possibilities put forward by the intervenors in their arguments that the AGW could contain more than 1020 curies of tritium."⁵⁷ Finally, the Board addressed the record evidence on the applicant's chemical analysis procedures, the reasons for, and insignificance of, the different tritium measurements to which the intervenors pointed, and the staff's checks on the applicant's measurements.⁵⁸ It found that the tritium content of the AGW had been accurately and conservatively determined by actual measurements that had been independently verified. Thus, it concluded that the radionuclide content of the AGW properly supported the environmental comparison of the disposal options.⁵⁹

We have reviewed, as best we can discern them, the intervenors' myriad complaints apparently aimed at the Board's final determination on the tritium content of the AGW. No useful purpose would be served by burdening this opinion with a recitation and evidentiary refutation of each of the intervenors' claims. The Licensing Board's findings already do that more than adequately. Suffice it to say that we have examined the record and found nothing to undermine the Board's findings. Applying the applicable standard of review for such factual findings, we are not convinced that the record compels a different conclusion. Indeed, we are persuaded that the Board's findings are correct and that the intervenors' complaints are baseless.

⁵⁵ LBP-89-7, 29 NRC at 181-82 (record citations omitted).

⁵⁶ *Id.* at 182-83.

⁵⁷ *Id.* at 184.

⁵⁸ *Id.* at 184-89.

⁵⁹ *Id.* at 189.

E. Additionally, the intervenors argue that the Licensing Board wrongly required them to develop a no-action alternative to the applicant's evaporation proposal and then erroneously saddled them with the burden of proving that their alternative was obviously superior to the applicant's proposal.⁶⁰ The record, however, does not substantiate the intervenors' charges of error.

In its findings, the Licensing Board fully and correctly answered these often repeated charges by the intervenors, and there is little we need add to that discussion.⁶¹ The intervenors' contention 2 alleged that the agency's consideration of the no-action alternative in the supplement to the PEIS was inadequate.⁶² As the Licensing Board explained, it was the intervenors' own representations during prehearing proceedings that established the particulars of the no-action alternative considered by the applicant, the staff, and the Board. First, during the special prehearing conference on the admissibility of their proffered contentions, the intervenors represented that the no-action alternative referenced in contention 2 assumed that the AGW eventually would be disposed of, in contrast to being indefinitely stored.⁶³ During discovery when the applicant and the staff sought to identify the basis for the intervenors' claim that the agency's consideration of the no-action alternative was inadequate, the intervenors' interrogatory responses indicated that the no-action alternative should have the equivalent of a thirty-year storage period for the AGW.⁶⁴ Thereafter, this same time period was endorsed by the intervenors' own witnesses in direct testimony.⁶⁵ Having made these representations, the intervenors cannot now be heard to complain that the Licensing Board erred in making its findings based on a no-action alternative containing those same representations.⁶⁶

Nor did the Licensing Board place the burden of proof upon the intervenors as they charge. Rather, the Board placed the ultimate burden of proof, in contradistinction to the burden of going forward, upon the applicant, where it properly belonged.⁶⁷ The Board then found that the applicant had demonstrated, by a preponderance of the evidence, that its evaporation proposal was environ-

⁶⁰ Intervenors' Brief at 38-44.

⁶¹ See LBP-89-7, 29 NRC at 141-42, 152-58.

⁶² See LBP-88-23, 28 NRC at 185.

⁶³ Tr. 65.

⁶⁴ LBP-89-7, 29 NRC at 154; LBP-88-23, 28 NRC at 186 n.3.

⁶⁵ LBP-89-7, 29 NRC at 155.

⁶⁶ See *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U.S. 519, 553-54 (1978).

To the extent the intervenors are complaining that the agency failed to consider leaving the AGW onsite indefinitely (Intervenors' Brief at 40), the Licensing Board also addressed this claim. Part of the intervenors' contention 8 called for the indefinite storage of the AGW inside containment. The Licensing Board granted the applicant's motion for summary disposition of this contention (LBP-88-23, 28 NRC at 225-32) and, in their brief, the intervenors neither mention the Board's disposition of contention 8 nor explain how the Board's summary disposition ruling was in error.

⁶⁷ Tr. 103-04, 581-84; LBP-89-7, 29 NRC at 141 n.8. See 10 C.F.R. §2.732. See, e.g., *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 345 (1973).

mentally acceptable⁶⁸ and that the applicant's proposal was obviously superior to the no-action alternative.⁶⁹

F. Finally, the intervenors challenge the Licensing Board's factual findings on the costs associated with the no-action alternative, the risks related to storage tank rupture, and the health effects of the applicant's proposal.⁷⁰ Once again, the intervenors present no meaningful analyses of the Licensing Board's findings and ignore the substantial record evidence relied upon by the Board.⁷¹ Nevertheless, we have examined the record underlying the Board's detailed findings in light of intervenors' allegations. It is sufficient to note that the Board's findings on these issues are all well supported and adequately explained.⁷² Under the applicable standard for reviewing such factual findings, we are not persuaded that the evidence compels a different result. As we read the evidence, the record demands the findings made by the Licensing Board.

One point, however, deserves separate comment. The intervenors suggest that the Licensing Board harassed one of their expert witnesses and was discourteous to him.⁷³ In its decision, the Licensing Board made extended credibility findings with regard to this witness.⁷⁴ It found that the witness lacked credibility primarily because he "showed no concern for the authenticity and accuracy of the documents he had provided with his testimony" and that the witness "was careless about the accuracy of his testimony."⁷⁵ Further, the Board concluded that the intervenors' witness "lack[ed] credibility because of his inability to produce

⁶⁸ LBP-89-7, 29 NRC at 142.

⁶⁹ *Id.* at 180.

⁷⁰ Intervenors' Brief at 46-66.

⁷¹ The intervenors also appear to misapprehend the principles applicable to the consideration of radiation doses. For example, the intervenors claim that the ALARA principle requires the radiation doses from the applicant's proposal to be "as low as possible," and that the Commission made a commitment to minimize doses to the public and workers during the cleanup at TMI. *Id.* at 45, 59. ALARA, however, does not mean "as low as possible." Rather, this acronym stands for "as low as is reasonably achievable taking into account the state of technology, and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to the utilization of atomic energy in the public interest." 10 C.F.R. § 20.1(c). Further, in its 1981 policy statement on the cleanup of TMI, the Commission specified the "limits on the doses which may result to offsite individuals from radioactive effluents resulting from cleanup and decontamination activities," setting them forth in Appendix R to the PEIS, 46 Fed. Reg. at 24,764-65. As the record and the Licensing Board's decision show, the applicant's proposal will result in doses many times lower than the limits specified by the Commission. Compare LBP-89-7, 29 NRC at 151 (total dose to bone is 0.8 millirem and total body dose is 1.3 millirems for maximally exposed hypothetical individual), with 1981 PEIS, Vol. 2, App. R (dose to public from radionuclides in gaseous effluents shall be limited to 15 millirems to any organ).

⁷² See LBP-89-7, 29 NRC at 177-80, 147, 158-76.

The National Research Council's Committee on the Biological Effects of Ionizing Radiation (BEIR) recently released its latest report known as BEIR V. Although the report is not part of the record of this proceeding, the Committee's latest conclusions on exposures to low levels of radiation were anticipated by the expert witnesses for the staff and the applicant and considered by the Licensing Board. *Id.* at 174-75.

⁷³ Intervenors' Brief at 59.

⁷⁴ LBP-89-7, 29 NRC at 168-74.

⁷⁵ *Id.* at 170.

documentation or supporting explanations for his statements on risk values."⁷⁶ We have examined carefully the pertinent transcript pages and conclude that the intervenors' charges are groundless.⁷⁷ We also are satisfied that there is ample basis for the Licensing Board's credibility findings regarding this witness.⁷⁸

For the foregoing reasons, the Licensing Board's decision in LBP-89-7, 29 NRC 138, authorizing the operating license amendment is *affirmed*.

It is so ORDERED.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

⁷⁶ *Id.*

⁷⁷ See Tr. 1525-1648.

⁷⁸ While the intervenors' appeal was under consideration, the staff published in the *Federal Register* an environmental assessment and finding of "no significant hazard" relating to GPUN's license amendment application. 54 Fed. Reg. 37,517 (1989). We found the published notice to be less than a model of clarity, so we requested the staff to respond to several questions concerning the scope and effect of the notice (see Appeal Board Order (September 13, 1989) (unpublished)), and then permitted the other parties to respond to the staff's filing. See Appeal Board Order (October 6, 1989) (unpublished). Because all of the matters contained in the staff notice already are reflected in the adjudicatory record and considered in the lower Board's decision, the staff's action has no effect on the Licensing Board's amendment authorization or the intervenors' appeal. Indeed, under the Commission's regulations, 10 C.F.R. § 51.102(c), the Licensing Board's decision and the supporting adjudicatory record, along with the supplement to the FEIS, form the complete environmental record of decision. See *Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2)*, ALAB-819, 22 NRC 681, 705-06 (1985), *aff'd in part and review otherwise declined*, CLI-86-5, 23 NRC 125 (1986), *remanded in part on other grounds sub nom. Limerick Ecology Action, Inc. v. NRC*, 869 F.2d 719 (3d Cir. 1989). Accordingly, the staff's environmental assessment was merely a duplicative formality.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ivan W. Smlth, Chairman
Dr. Richard F. Cole
Dr. Kenneth A. McCollom

In the Matter of

Docket Nos. 50-443-OL

50-444-OL

(ASLBP No. 82-471-02-OL)

(Offsite Emergency Planning)

PUBLIC SERVICE COMPANY OF

NEW HAMPSHIRE, *et al.*

(Seabrook Station, Units 1 and 2)

January 8, 1990

MEMORANDUM AND ORDER

(Ruling on Intervenor's Motions to Admit a Late-Filed
Contention and Reopen the Record Based upon the
Withdrawal of the Massachusetts E.B.S. Network and WCGY)

BACKGROUND

By Motions served on November 9¹ and November 22,² 1989, the

¹ Intervenor's Motion to Admit a Late Filed Contention and Reopen the Record on the SPMC Based upon the Withdrawal of the Massachusetts E.B.S. Network and WCGY (November 9, 1989) ("Motion"). The instant motion is facially identical to a motion filed by the Intervenor on October 30, 1989, and then withdrawn on November 8. The October 30 Motion was submitted to the Board with the unsigned and unattested affidavit of Mr. Royce Sawyer, the Communications/Warning officer for the Massachusetts Civil Defense Agency. The motion explains that Mr. Sawyer signed the affidavit on November 3. However, for reasons unexplained, "late on the afternoon of November 7, the Mass AG became aware for the first time that the Intervenor would be unable to sponsor Sawyer as an expert witness in this proceeding." Motion at 5. The October 30 Motion was therefore withdrawn on November 8. The Intervenor then promptly undertook to locate another expert on the issues raised in their contention and found Mr. Robert Boulay, the Director of the Massachusetts Civil Defense Agency, to serve as an expert witness on November 9. The instant motion was filed that same day. Motion at 6.

² Intervenor's Motion to Add an Additional Basis to the Late Filed Attached Contention to the Motion of November 9, 1989 (November 22, 1989) ("Basis Motion").

Massachusetts Attorney General, the Seacoast Anti-Pollution League, and the New England Coalition on Nuclear Pollution (collectively "Intervenors"), move this Board pursuant to 10 C.F.R. § 2.734 to admit a contention alleging that the Applicants' Seabrook Plan for Massachusetts Communities ("SPMC") is inadequate because it does not meet the public notification requirements of 10 C.F.R. § 50.47(b)(5)³ and 10 C.F.R. Part 50, Appendix E, § IV.D.⁴

The Intervenors' case is grounded upon the action of the Massachusetts Emergency Broadcast System ("EBS") and the management of one radio station ("WCGY") both of whom recently repudiated letters of agreement ("LOAs") with the New Hampshire Yankee ("NHY") Offsite Response Organization ("ORO"). The LOAs provided for their participation with NHY in emergency planning and the activation of the EBS network in the EPZ in the event of a radiological emergency at Seabrook Station. The Massachusetts EBS and Station WCGY repudiated the LOAs with NHY for an alleged failure on the part of NHY to provide electronic equipment to WCGY for a direct communications link between NHY and that station.⁵ Intervenors' Motion alleges that without the cooperation of WCGY, the Applicants will not be able to activate the EBS servicing the Seabrook Emergency Planning Zone ("EPZ") in Massachusetts.⁶ In particular, the Intervenors argue that the alleged inability of NHY to activate the EBS poses two significant safety issues: (1) that without WCGY, the EBS in the Merrimac Valley area (which covers the EPZ) supposedly cannot be activated and that the stations upon which the Applicants now rely for notification, sister

³ That section states in relevant part: "[M]eans to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established." *Id.*

⁴ That section states in relevant part:

The design objective of the prompt notification system shall be to have the capability to essentially complete the initial notification of the public within the plume exposure pathway EPZ within about 15 minutes. The use of this notification capability will range from immediate notification of the public (within 15 minutes of the time that State and local officials are notified that a situation exists requiring urgent action) to the more likely events where there is substantial time available for the State and local governmental officials to make a judgment whether or not to activate the public notification system.

Id., ¶ 3.

⁵ The question of the legal effect of the October 20 repudiation of the letter of agreement in light of a clause in that agreement requiring 90 days' notice prior to termination remains unaddressed. Motion, Attach. B, A Letter of Agreement Between Radio Station WCGY and New Hampshire Yankee's Offsite Response Organization. The significance of the Intervenors' Motion is further clouded by the fact that NHIY states that it is ready to follow through with its contractual obligations as outlined in the LOA and subsequent correspondence. Applicants' Answer to Intervenors' Motion to Admit a Late Filed Contention and Reopen the Record Based upon the Withdrawal of the Massachusetts E.B.S. Network and WCGY ("Answer") (November 15, 1989), Exh. III, Affidavit of George R. Gram, ¶ 9 and Exh. B. We are further concerned by the fact that WCGY's repudiation seems to be predicated upon the actions of a quasi-state government official, Mr. Douglas Rowe, the Co-Chairman of the Massachusetts EBS. Prior to WCGY's repudiation, Mr. Rowe unilaterally informed the management of WCGY of NHIY's intentions with respect to the furnishing of the EBS equipment, of his decision to no longer recognize NHIY as an EBS activating entity, and of his decision to void the Massachusetts EBS letter of agreement with NHIY, withdrawing the Massachusetts EBS from participation in NHIY emergency planning. Motion, Attach. F, Affidavit of John F. Basset Regarding the Voiding of the EBS Letters of Agreement, ¶ 4.

⁶ Motion at 2.

stations WLYT-FM and WHAV-AM, do not have adequate broadcast coverage,⁷ and (2) that without WCGY, the Applicants cannot meet the 15-minute prompt alert and notification criteria.⁸ These allegations, according to the Intervenor, warrant admission of their late-filed contention and the reopening of the record.

STANDARDS FOR REOPENING A CLOSED RECORD

A motion to reopen a closed record⁹ to consider additional evidence will not be granted unless the requirements of 10 C.F.R. § 2.734 are met.¹⁰ Indeed, we are mindful "that the Commission expects its adjudicatory boards to enforce the section 2.734 requirements rigorously — i.e., to reject out-of-hand reopening motions that do not meet those requirements within their four corners."¹¹

Timeliness

In order for the Intervenor to succeed in reopening the record in this proceeding, they must first demonstrate that their motion is timely.¹² Because their motion relates to a contention not previously in controversy among the parties, the motion must also satisfy the requirements for nontimely contentions found in 10 C.F.R. § 2.714(a)(1)(i) through (v).¹³

The Intervenor argues that their motion is timely because it was the event of WCGY's repudiation that created the safety issue they now seek to litigate. This is so, they state, because WCGY is a "gateway" station which controls the activation of the EBS system in the Merrimac Valley where the EPZ is located.

⁷ *Id.* at 15. See note 3, *supra*.

⁸ Motion at 16-18. See note 4, *supra*.

⁹ The evidentiary record of the Seabrook proceedings closed June 30, 1989.

¹⁰ (1) The motion must be timely, except that an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented; (2) the motion must address a significant safety issue; and (3) the motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially. The motion must be accompanied by one or more affidavits that set forth the factual and/or technical bases for the movant's claim. In addition, a motion to reopen that relates to a contention not previously in controversy among the parties must also satisfy the requirements for nontimely contentions set forth in 10 C.F.R. § 2.714(a)(1)(i) through (v). See 10 C.F.R. § 2.734.

¹¹ *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-915, 29 NRC 427, 432 (1989), citing *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1 (1986); *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), CLI-86-7, 23 NRC 233 (1986), *aff'd sub nom. Ohio v. NRC*, 814 F.2d 258 (6th Cir. 1987).

¹² 10 C.F.R. § 2.734(a)(1).

¹³ A determination to admit a late-filed contention must be made upon a balancing of the following factors: (1) Good cause, if any, for failure to file on time; (2) the extent to which the petitioner's interest will be protected; (3) the extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record; (4) the extent to which the petitioner's interest will be represented by existing parties; and (5) the extent to which the petitioner's participation will broaden the issues or delay the proceeding. 10 C.F.R. § 2.714(a)(1)(i)-(v); see *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041 (1983); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-883, 27 NRC 43, 49 (1988).

They cite various provisions of the SPMC to support an assertion that the SPMC contemplates the use of the EBS radio *network* as a whole to alert the citizens of the EPZ.¹⁴ However, without the cooperation of WCGY, the Intervenor argues, “the Applicants will not be able to activate the EBS servicing the Seabrook Emergency Planning Zone” in Massachusetts. According to the Intervenor, the EBS network functions in much the same way as a “telephone pyramid.” The primary relay EBS station in Massachusetts, WROR in Boston, by transmission of its activating tone, trips the tone-alert radios at the EBS operational area “gateway” stations. WCGY, after receiving the signal from WROR, trips the tone-alert radios located in the other Merrimac Valley EBS stations. Those stations in turn pick up the EBS message and transmit it out on their own frequencies to the public. According to the Intervenor, the activation of the EBS cannot take place through NHY’s contract with WLYT, because WLYT is not a gateway or lead EBS station, and the other Merrimac Valley EBS stations are not tuned to receive WLYT’s signal. Motion at 10. *See* Motion, Exh. 1, Massachusetts Emergency Broadcast System Operational Plan, at 2. In this context, we must infer, as long as the Applicants maintained a letter of agreement with WCGY, the notification scheme appeared to be adequate. Therefore, the Intervenor claims, it was not until the time that WCGY repudiated the letter of agreement with NHY that the issue of the adequacy of the notification system came to light.¹⁵

The Applicants make a strong case that WCGY’s October 20 repudiation of the letter of agreement is not relevant to the timeliness issue. They argue that in the “Seabrook Station Public Alert and Notification System FEMA-REP-10 Design Report” (“REP-10 Report”) published in redacted version on April 30, 1988, “it was made perfectly clear [to the Intervenor] that Applicants were relying on a single contract FM and AM station for initial notification and dissemination of information.”¹⁶ Moreover, the Intervenor was sent a letter enclosing the unredacted pages of the REP-10 Report in June 1988.¹⁷ The Applicants argue that the letter and enclosed documentation also made clear that the SPMC would be relying solely on station WLYT-FM and its sister station WHAV-AM for notification requirements. The Applicants also cite the deposition of Gregory Howard taken on November 16, 1988,¹⁸ and the cross-examination of Applicants’ witness Desmarais conducted by Massachusetts

¹⁴ Motion at 8-9, *citing* SPMC, § 3.2.5, Public Notification, at 3.2-13 and 3.2-15. We also note that the letter of agreement in question states that “[t]he management of WCGY . . . (when requested) agrees to activate the Emergency Broadcast System for the Emergency Planning Zone located within the Commonwealth of Massachusetts.” Motion, Attach. B.

¹⁵ Motion at 4.

¹⁶ Answer at 3, *citing* REP-10 Report at 1-3, *et seq.*

¹⁷ Answer, Exh. I, Affidavit of Anthony Callendrello, ¶ 3 and Attach. A.

¹⁸ Howard Deposition at 129, *et seq.* *See* MAG Exh. 126, at 129.

Assistant Attorney General Jonas on May 2, 1989,¹⁹ to evidence their claim that the Intervenor was aware of WCGY's supporting, but unessential, role in the design of NHY's notification system.²⁰ Therefore, the Applicants continue, the Intervenor should have been well aware over one year ago that the SPMC did not contemplate the use of WCGY *in order to meet the NRC's notification requirements*. Had the Intervenor wanted to litigate problems arising out of the fact that the two sister EBS stations were being relied upon to notify the public and to disseminate information, and not WCGY, the Applicants argue that the Intervenor could and should have litigated such matters long ago. Applicants' versions of the facts surrounding notice to Intervenor, actual or constructive, is well supported by the evidence cited by them. Intervenor knew or should have known as early as 1988 that the Massachusetts EBS and the agreement with WCGY were not essential to the method of alerting the public relied upon by NHY.

The NRC Staff initially faltered in expressing its position on the timeliness issue. In its Response²¹ to the Intervenor's Late Filed Contention Motion, it states that the timeliness factor "weigh[s] in Intervenor's favor" because "given the recent withdrawal of station WCGY from participation in the SPMC (October 20, 1989), the contention *might* be considered timely filed [emphasis supplied]."²² However, in its Response to the Intervenor's Motion to Add an Additional Basis, the Staff states that the "Intervenor's EBS contention and supplemental basis are not timely."²³ Instead, staff now agrees with the Applicants' assessment of the timeliness issue. We can understand the cause of Staff's ambivalence since the Board itself does not see the timeliness issue as a simple one. Resolution of the issue turns upon whether the essential elements of the broad issue could have been litigated earlier, or whether the recent events giving rise to the motions are sufficiently material in themselves to support Intervenor's argument that the motion is timely.

Mr. Gram's affidavit testimony to the effect that the commitment to Station WCGY was always viewed by NHY as a backup arrangement has not been disputed. Moreover, the fact that the notification system depends in the first instance upon the single contract stations, WLYT-FM and WHAV-AM, has long been known to Intervenor as we note above. In assessing the timeliness of the motion, we must, therefore, assess the significance of the withdrawal of the

¹⁹ Tr. 147-51 (Bloch Board) (5/2/89).

²⁰ Answer at 2; Exh. 3, Gram Affidavit, ¶¶ 6-8.

²¹ NRC Staff Response to Intervenor's Motion to Admit a Late Filed Contention and Reopen the Record of the SPMC Based upon the Withdrawal of the Massachusetts E.B.S. Network and WCGY (November 20, 1989).

²² *Id.* at 8.

²³ NRC Staff Response to Intervenor's Motion to Add an Additional Basis to the Late Filed Attached Contention to the Motion of November 9, 1989 (December 6, 1989).

backup, *qua* backup, method of public notification. In particular, the following circumstances are relevant:

1. The FEMA REP-10 Design Report of April 30, 1988, refers to the contract stations by call letters, but not at all to Station WCGY. The Massachusetts plan discusses the "EBS radio station" but not by call letters. SPMC, § 3.2.5, Public Notification at 3.2-15. Intervenor deny, contrary to the weight of the evidence and our finding, *supra* p. 23, that they knew, or should have known, that only the two sister contract EBS stations were relied upon as the primary channel for public notification. Therefore they cannot now assert that they understood that the nature of the role assigned to WCGY was as a backup, but that, even as a backup, the arrangement lulled them into not timely challenging the coverage afforded by WLYT/WHAV alone.

Intervenor's case for timeliness depends, we infer, upon the argument that the Massachusetts EBS system is referred to in the SPMC (3.2-15, *supra*). That fact, in turn, renders relevant the fact that the respective portion of the Massachusetts EBS depends upon WCGY as the gateway station for activation. Thus the letter of agreement with WCGY is material. This argument is flawed, however, because as we discuss below, it is factually inaccurate. Intervenor, of course, have the burden of sustaining their argument that the motion is timely.

2. Neither the alerting requirements of 10 C.F.R. § 50.47(b)(5) nor of Appendix E, § IV.D requires the use of an EBS as such in notifying the public. NUREG-0654, II.E.5 requires notification to "appropriate broadcast media" but only suggests, as an example, the use of an EBS. Assuming for present purposes that the functional coverage and timing requirements are met without the relevant Merrimac Valley EBS *network*, Intervenor cannot successfully claim that the withdrawal of the EBS gateway station from cooperation with NHY somehow unravels compliance with the NRC's regulatory alerting requirements.

3. However, even if activation by NHY of the Merrimac Valley EBS network through WCGS is not a regulatory requirement, and even if NHY's contract with WLYT/WHAV alone can provide adequate and timely notification to the public, the arrangement with WCGY did exist. We must consider why that was so, and what the effect that circumstance has upon the motion. To state, as do Applicants, that it was an unessential backup to WLYT/WHAV is too simple for present needs. Applicants placed the arrangement with WCGY into evidence in the recently closed hearings. Applicants' Exhibit No. 40, the 1989 Emergency Plan Information Calendar at (2), advises the public that WCGY (along with WLYT and WHAV) is a station that would broadcast an emergency message. The letter of agreement with WCGY itself was placed into evidence by Applicants in Appendix C of the SPMC. Therefore we question whether, intentionally or unwittingly, Applicants may have exceeded regulatory requirements — "sweetened the pot" so to speak — as an inducement or strategy for the issuance of its license in this litigation. If so, the withdrawal of WCGY,

even as an unnecessary and voluntary backup to the primary public notification scheme, would be more material to the issue of timeliness.

We acknowledge that the relationship between Applicants' purpose for offering evidence of NHY's backup arrangement with WCGY and the issue of timeliness of the Intervenor's motion may seem obscure. As noted above, we must measure timeliness by whether the withdrawal of WCGY is material to NHY's public alerting scheme. It would be a question of fairness in litigation were Applicants to take credit for the arrangement in seeking their license, then renounce as immaterial the dissolution of that arrangement in defending against Intervenor's motion. Therefore we examine carefully the background of the letter of agreement with WCGY.

We learn from the affidavit of NHY's Executive Director of Emergency Preparedness and Community Relations, George Gram, that NHY pursued a "defense in depth" strategy to assure that backup mechanisms were available to implement the SPMC. In furtherance of that strategy, discussions were held in 1987 with Mr. Rowe representing the Massachusetts EBS as its Co-Chairman. Mr. Rowe expressed to NHY his interest in upgrading the Massachusetts EBS, and noted that WCGY, as the Merrimac Valley EBS gateway station, required additional equipment to allow the NHY ORO to activate directly that portion of the Massachusetts EBS. Consequently the agreement with WCGY was made, and some of the equipment was installed. Gram Affidavit, ¶¶ 6, 7. That being so, Applicants had no choice but to include the letter of agreement with WCGY in Appendix C to the SPMC and in its public information calendar, which in turn, were appropriately offered into evidence. Facts are facts, whether they are essential to licensing or not.

The Board concludes that the letter of agreement with WCGY was entered into for sound and laudable reasons.²⁴ It was not a litigation-inspired transaction. Applicants' effort to enhance marginally the effectiveness of the public notification system, beyond the requirements of NRC regulations, appears for the moment to have failed. As we explain further in the following discussion of the safety significance of the issues raised by the motion, that failure is not a material aspect of the broader issue of coverage and timely notification to the public. Therefore it does not support Intervenor's argument that the recency of the failure renders timely their motion to litigate the broader issue. Intervenor's motion is not timely.

Intervenor's Motion to Add an Additional Basis to its motion is also late. Intervenor could have made the argument long ago that reliance on WLYT and

²⁴ Although it is not directly relevant to the disposition of the motion, we believe that the Applicants' extra efforts to improve the public alerting system should not return to haunt them in litigation if those efforts subsequently fail.

WHAV is inadequate in that neither can activate the Merrimac Valley portion of the EBS and that the stations have limited coverage on their own.

Safety Significance

The second criterion of 10 C.F.R. § 2.734(a) requires us to determine whether the Intervenor's motion presents a significant safety issue, which in itself may warrant the admission of the contention even in the face of its untimely filing.²⁵

As we have stated before, the Intervenor's allege two separate and distinct significant safety risks presented by WCGY's withdrawal from the Applicants' notification scheme. First, without WCGY's activation of the Merrimac Valley EBS network, local stations will not pick up the EBS messages that are designed to carry information to the public.²⁶ Moreover, they argue, WLYT/WHAV does not have adequate broadcast coverage to adequately alert the EPZ public.²⁷ Second, there is no assurance that NHY will be able to notify the public "within the 15 minute minimum" required by Commission regulations²⁸ because NHY failed to install a dedicated phone line or radio link with WCGY which would obviate the problem of WCGY's telephones all being busy on occasion. Moreover, the Intervenor's claim, even though the Governor can activate the EBS network for Merrimac Valley by calling WCGY directly, or activate the State EBS network by calling WROR directly, there is no assurance that the notification of the public can take place within the regulatory time period because there is neither assurance that the Governor can reach WCGY by telephone (again, because all the lines are sometimes busy) nor any assessment of how much time it would take to activate the EBS through WROR and then transmit that activation to WCGY.²⁹

The Applicants' Answer is an impatient disavowal of the Intervenor's allegations. They reiterate, correctly, we find, that there is adequate broadcast coverage of the EPZ by the sister stations under contract, WLYT and WHAV, and that NHY's ability to provide public notification within 15 minutes has

²⁵ An exceptionally grave safety issue may be considered in the discretion of the presiding officer even if the issue is untimely presented. See 10 C.F.R. § 2.734(a)(1).

²⁶ Motion at 15.

²⁷ The Intervenor's Basis Motion alleges that the two sister stations upon which the Applicants rely for EBS notification have a combined listenership of less than one-half of one percent (0.5%) of the person population over age 12 in that listening area. Basis Motion at 7-8. Because of this, the Intervenor's allege that upon hearing the notification sirens, a vast majority of the people will have to tune up and down the dial to find the stations. *Id.* at 13. In contrast the combined estimated share of the listenership for all the stations comprising the Merrimac Valley EBS "is over 10 times as great." *Id.* According to the Intervenor's, notification of the public in an emergency plan "cannot in any right headed world be left to chance." *Id.* at 13-14. However, Intervenor's do not explain at what point (between 0.5% and 5+% coverage of the listenership) chance disappears.

²⁸ Motion at 17.

²⁹ *Id.* at 17-18.

been "exercised and fully litigated."³⁰ Thus, according to the Applicants, "there simply is no safety question, never mind a significant safety question."³¹

The NRC Staff's Response places the EBS issue in a different light. The Staff directs the Board's attention to an Appeal Board advisory opinion issued in the *Shoreham*³² proceeding. There, the Appeal Board affirmed a Licensing Board ruling that an applicant could properly rely on a state's EBS network to provide emergency information to the public even if it had not obtained letters of agreement with the participating stations. Moreover, the *Shoreham* Appeal Board found a presumption that the participating EBS stations would broadcast emergency information willingly.³³ The Staff argues that the *Shoreham* decision is fatal to the Intervenor's motion because its application effectively precludes the issues of WCGY's withdrawal from NHY's notification scheme, and the adequacy of the coverage of WLYT-FM/WHAV-AM, from being safety issues material to this proceeding.³⁴

In *Shoreham*, the applicant ("LILCO") planned to utilize the EBS network covering the Shoreham Station EPZ in which radio station WALK played a lead role. Subsequent to the Licensing Board determination that the WALK network provided an adequate emergency notification system, WALK withdrew

³⁰ Answer at 12-13.

³¹ *Id.* at 13.

³² *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-911, 29 NRC 247, 254-55 (1989).

³³ By Order dated March 3, 1989 (see *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-89-2, 29 NRC 211 (1989)), the Commission ordered an end to the *Shoreham* proceedings. See *id.* at 232. However, notwithstanding the Commission's Order, the Appeal Board undertook a *sua sponte* review of three emergency planning issues that had come before it on appeal prior to the issuance of CLI-89-2 and issued an "essentially advisory opinion." *Shoreham*, ALAB-911, *supra*, 29 NRC at 251. The Appeal Board stated that the purpose of its review was the "protection of the public interest in general (as opposed to a particular litigant's interest) by providing another independent level of review of significant health, safety, and environmental issues on which a substantial evidentiary record already exists." *Id.* at 250. Regardless of the Appeal Board's intentions, on March 22, 1989, the Secretary of the Commission issued a one-page Commission Order (unpublished) stating that "because certain statements in [ALAB-911] may give rise to misunderstanding, the attention of the Boards and parties is directed to the statements in CLI-89-2 . . . that 'This decision constitutes the final adjudicatory decision in this matter.' [CLI-89-2, 29 NRC at 232]. Because ALAB-911 is without legal effect, petitions for review of it would be unnecessary . . ." The Commission gave no further guidance as to whether "without legal effect" pertains only to the legal effect on the *Shoreham* parties or to the further application of that decision's precedent in other Commission proceedings.

However, we take note of three relevant considerations which shape our ultimate respect for the conclusions of ALAB-911 with regard to the EBS issue before us. First, ALAB-911 was a reasoned opinion of the Appeal Board based upon a "substantial evidentiary record." *Shoreham*, ALAB-911, *supra*, 29 NRC at 250. Second, the Appeal Board affirmed a reasoned Licensing Board decision based upon that record. *Id.* at 254, 263. Third, the Commission's Order did not vacate ALAB-911 regardless of its apparently erroneous interpretation of the procedural posture of the case. See *id.* at 250-51.

In final analysis, in light of the uncertainty that remains, we do not totally rely on ALAB-911 as legal precedent, nor is it essential to our conclusions here. But we do choose to follow the reasoning of the Appeal Board in that decision. There are no relevant dissimilarities in the fact pattern in *Shoreham* and the case before us. The logic of ALAB-911 is sound and totally applicable as we discuss in the body.

³⁴ We note that neither the Intervenor's Late-Filed Contention Motion nor their Motion to Add an Additional Basis addresses the merits of either the Licensing Board decision in *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-88-24, 28 NRC 311 (1988), or the Appeal Board decision in ALAB-911 which affirmed the Licensing Board's ruling regarding the EBS issue.

its participation. After an aborted attempt to substitute another radio station, LILCO ultimately informed the Licensing Board that it proposed to rely upon an already existing State EBS network for the counties encompassing the EPZ.³⁵ That EBS was established by the State of New York and approved by the Federal Communications Commission. It could be activated by federal, state, or local authorities by contact with a lead station, WCBS in New York City. Station WCBS was responsible for both (1) broadcasting any emergency informational messages provided to it, and (2) transmitting the messages to a network of more than thirty radio stations for dissemination by those stations to the EPZ audiences.

The Licensing Board went on to find that LILCO could rely upon the requisite coverage being supplied by the full EBS network. They ruled that no evidence was presented that would raise serious questions as to whether an adequate warning to residents of the EPZ could be delivered through the network of stations in the State EBS. It also rejected the intervenors' argument that, in the absence of assertedly required letters of agreement, it could not be assumed that the network stations will broadcast emergency messages. The Board concluded that NRC regulations do not require such letters of agreement "where a preexisting agreement between the State and the broadcast industry complies with NRC guidance."³⁶

The ALAB-911 advisory opinion affirmed the Licensing Board's ruling that in the absence of evidence that an EBS network is technically incapable of providing emergency broadcast information "the participants in the state-established EBS network will be both willing and able to broadcast messages throughout the EPZ"³⁷ The Board continued:

[I]t must be presumed that the State . . . and the FCC knew what they were doing in establishing and approving, respectively, a communications network designed to provide emergency information to the entire [EPZ]. . . . NRC and FEMA regulations require [no] more than the preexisting agreement between the state and the network stations to establish a presumption of a willingness to participate. . . . [I]t is noteworthy that, in announcing in the *Federal Register* the availability of FEMA-REP-10, FEMA observed that, in response to comments on earlier guidance, it had "replaced the requirement [in that earlier guidance] for written agreements that individual broadcasting stations will participate in the EBS with a requirement for documentation indicating that they are *able* to participate in the EBS." [Footnote omitted] In short, FEMA obviously proceeds on the premise that a station that undertakes to become a part of an established EBS will carry out in any emergency (nuclear or otherwise) the responsibilities it has assumed

. . . Because, however, the record contains nothing to rebut the presumption that such coverage will be supplied by the entire multi-station network (a presumption arising from the

³⁵ LBP-88-24, *supra*, 28 NRC at 319.

³⁶ *Id.* at 328.

³⁷ *Shoreham*, ALAB-911, *supra*, 29 NRC at 254.

state's establishment and the FCC's approval of the network), we agree with the Licensing Board's ultimate resolution of the EBS issue³⁸

We see no factual distinction between the case before us and that before the Boards in *Shoreham*. The Intervenor repeatedly assert that without WCGY, the EBS network cannot be activated in the EPZ, and therefore, the EPZ public cannot be adequately notified of an emergency. This argument inherently carries with it the logical implication that the EBS network for the EPZ is adequate for notifying the EPZ public, otherwise WCGY's withdrawal from that system would simply be irrelevant. Moreover, the Intervenor's motion, with its attached affidavits and exhibits, presents a compelling showing that adequate EBS coverage can be provided by the entire multi-station network through WCGY, or the lead station in Massachusetts, WROR, to the Massachusetts section of the EPZ, and that the state's EBS network meets the Commission's regulatory requirements.³⁹

However, the Intervenor argue a point that was not addressed in the *Shoreham* decision. Even though they admit that activation of the EBS for the EPZ can be made by the direct telephone request of the Governor or his representatives through WROR or WCGY,⁴⁰ they argue that neither one of these methods of EBS activation may support a finding that governmental notification can be carried out within the Commission's regulatory time limit. We now turn to the merits of this argument.

First, the Intervenor assert that governmental activation of the EBS through WCGY may not be possible to carry out within the 15-minute regulatory time period because neither the Governor nor any state or local entity may be able to reach WCGY because all of WCGY's telephone lines are sometimes busy.

As to the Intervenor's assertion that a "busy" signal at WCGY will preclude timely activation of the EBS network, it is incomprehensible that the Governor would allow a busy signal at WCGY to stand in the way of earliest possible notification of the public in the face of the type of grave emergency the Intervenor postulate.⁴¹ Moreover, for the Attorney General to explain to this

³⁸ *Id.* at 254-55.

³⁹ NUREG-0654 requires applicants to provide evidence of capability of local and state agencies to provide information promptly over radio and TV at the time of activation of an alerting signal. Evidence of capability is to be provided as follows: "The emergency plans shall include evidence of such capability via agreements, arrangements or citation of applicable laws which provide for designated agencies to air messages on TV and radio in emergencies." NUREG-0654, FEMA-REP-1, Rev. 1, Appendix 3, at 3-4. The Massachusetts Emergency Broadcast System Operation Plan submitted by the Intervenor as Exhibit 1 to their instant motion squarely fits this regulatory language.

⁴⁰ Motion at 17; Boulay Affidavit, *supra*, at 5; Plan, *supra*, at 3 and 4.

⁴¹ We note as we have in several instances in our SPMC Partial Initial Decision, LBP-89-32, 30 NRC 375 (1989), the Intervenor present their argument from the extreme end of the accident spectrum, a fast-breaking accident when it would be necessary to notify the public immediately of the Protective Action Recommendations with little or no time for deliberation on the content of the EBS message.

Board that he believes that there exists such an impediment to the activation of the Massachusetts EBS, and to imply that nothing will be done about it, would be astonishing but for the fact that we have become familiar with his approach to issues of public safety in this proceeding.

In any event, the Intervenor's motion nowhere alleges that the Governor could not reach WROR because its lines would be busy, thereby precluding activation of the statewide EBS system in a more efficient manner. Therefore, under the best-efforts presumption,⁴² we find that the Governor, or his official representative, as a responsible government official facing an emergency, would either activate or authorize activation of the EBS system through WROR⁴³ in the event that he could not figure out how to reach WCGY timely.

Second, Intervenor's assert that activation of the EBS through WROR may not be possible to be carried out within the 15-minute regulatory time period because:

No Massachusetts agency or entity has prescribed EBS messages for the Seabrook EPZ. If any EBS messages for the Seabrook EPZ were to be transmitted by means of a state agency activating WROR, the EBS messages would first have to be transmitted from NHY ORO to the state agency, then from the state agency to WROR.⁴⁴

There simply is no merit to this argument. The Intervenor's assertion only presents part of the picture. The SPMC, the SPMC Implementing Procedures, and NUREG-0654 all require the NHY ORO decisionmakers to communicate with state officials prior to any decision to activate the EBS system, and further require that the content of EBS messages be coordinated between the NHY ORO decisionmakers and state officials before they are broadcast over the EBS system.⁴⁵ Moreover, there is a regulatory requirement for prescribed EBS messages to be part of the licensee's notification scheme. NUREG-0654 provides:

⁴² See *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-86-13, 24 NRC 22, 31 (1986); 10 C.F.R. § 50.47(c)(1)(iii)(B); *Rulemaking affirmed, Massachusetts v. United States*, 856 F.2d 378 (1988).

⁴³ We note that the Governor's activation of the statewide EBS system through WROR would unnecessarily activate stations that are not integral to the notification of the public in the EPZ. However, as the Massachusetts EBS Operational Plan indicates, if the EBS is activated through WROR, only the seven Primary Relay/CPCS Stations receive the initial notification from WROR. Moreover, the Plan allows station management discretion in broadcasting and recording the EBS message received, and it provides that each station must "avoid unnecessary escalation and public confusion [and] must be cautious in providing information and news pertaining to the emergency." Plan at 7. Furthermore, we would expect that the area affected by the emergency would be identified by town or county in the EBS message.

⁴⁴ Motion at 18 n.6.

⁴⁵ Seabrook Plan for Massachusetts Communities, § 3.2, Notification and Mobilization, at 3.2-13, 3.2-16, 3.2-17; SPMC Implementing Procedure 2.13, Public Alert and Notification System Including EBS Activation, at IP 2.13, at 3 and 8; NUREG-0654, FEMA-REP-1, Rev. 1, Notification Methods and Procedures, at 43, 46.

Each organization shall provide written messages intended for the public, consistent with the licensee's classification scheme. In particular, draft messages to the public giving instructions with regard to specific protective actions to be taken by occupants of affected areas shall be prepared and included as part of the State and local plans. . . . The role of the licensee is to provide supporting information for the message.⁴⁶

We also reject the notion that officials of the Commonwealth of Massachusetts will continue to refuse copies of the generic prescribed EBS messages called for in NUREG-0654 because they have refused to plan for an emergency at Seabrook.⁴⁷

It seems that the Intervenor has misinterpreted the provisions of 10 C.F.R. Part 50, Appendix E, § IV.D.3. They may have confused the Commission's requirement that "[a] licensee shall have the capability to notify responsible State and local governmental agencies within 15 minutes after declaring an emergency" with an additional, but separate requirement that the "design objective" of the licensee's notification system "shall be to have the capability to essentially complete the initial notification of the public within the plume exposure pathway . . . within about 15 minutes [of the time that state and local officials are notified of the situation]."⁴⁸

We have faced and ruled on this issue before.⁴⁹ While the provisions of 10 C.F.R. Part 50, Appendix E, § IV.D.3, place a burden on the licensee to demonstrate a capability to notify government officials of an emergency condition within 15 minutes of a decision to declare an emergency at the nuclear plant:

The regulation, however, provides for a *range* of notification time requirements. The most demanding is immediate notification of the public within 15 minutes of the time that the government officials are informed that a situation exists requiring urgent action. A more likely event would anticipate a much more deliberate scenario where the government has substantial time available to decide whether or not to activate the public notification systems.

⁴⁶ NUREG-0654, FEMA-REP-1, Rev. 1 at 46.

⁴⁷ Massachusetts decisionmakers are not totally unprepared to broadcast an initial clear informational message over the EBS system, even without such prescribed messages. The Commonwealth's Emergency Broadcast System Operational Plan provides a message format for state officials to use in the face of an extreme emergency. "The format is deliberately general in nature to allow for the uniqueness of each emergency situation, yet broad enough to insure completeness." Under the direction of the Governor or other state officials who are supposedly trained and prepared to carry out the Operation Plan, prepare EBS messages, and activate the EBS system, we believe that this format is, in combination with current onsite information and protective action recommendations provided over the telephone by the ORO, adequate for *initial* notification of the EPZ, just as it would be used in any emergency that would not allow a more deliberate approach to public notification. Moreover, we expect that the lack of prescribed messages will be shortlived if and when Seabrook Station is ultimately licensed. In the Partial Initial Decision on the SPMC, LBP-89-32, *supra*, we refused to accept the suggestion that all emergency planning information submitted by Applicants to the Commonwealth was accepted for litigation purposes only and stopped at the office of the Attorney General. 30 NRC at 596.

⁴⁸ 10 C.F.R. Part 50, Appendix E, § IV.D.3.

⁴⁹ See Memorandum and Order, Ruling on the June 1988 Exercise Contentions (December 15, 1988) (unpublished) at 36.

The regulation also anticipates activation of the notification system in a graduated or staged manner [citing 10 C.F.R. Part 50, Appendix E, § IV.D.3].

Therefore the requirement that government officials have the capability to make the public notification decision promptly can mean making the decision almost instantaneously in urgent situations, to a slower, more considered evaluation of whether the system should even be activated. Between those two poles one must necessarily include a determination of the important details of the public notification: that is, about what is the public to be notified?⁵⁰

The regulations do not, as the Intervenorers imply, absolutely require that the licensee make contact with state officials, complete their coordination of EBS message content, and complete initial notification of the public within 15 minutes. In the overall context of the regulation, the “about 15 minutes” standard means that initial public notification must be completed about 15 minutes after the *decision* to notify the public has been made by government officials. As we have noted before, “a decision that some notification must take place is not the end of the notification decision process. That decision is not complete until the important aspects of the notification have also been decided.”⁵¹

In summary, the affidavit of Mr. Boulay, the Director of the Massachusetts Civil Defense Agency, and the Massachusetts Civil Defense Agency Emergency Broadcast System Plan demonstrate that a state-approved and FCC-licensed EBS network is in place in the Massachusetts portion of the Seabrook Emergency Planning Zone. By the Intervenorers' own admission, the system can be activated in the event of a radiological emergency either through WROR or WCGY. Absent any evidence that the network does not have the technical capacity for alerting the public, there is a strong presumption that the EBS stations will broadcast the emergency message. The state EBS network can provide public information to the Massachusetts portion of the Seabrook EPZ by transmitting messages over every participating station within approximately 8 minutes of the initial broadcast of the EBS message.⁵² This capability complies with Commission regulations which mandate a design objective of complete initial notification of the EPZ public within about 15 minutes of the decision of government officials to activate the EBS system. In the face of a grave emergency at Seabrook Station, the Governor or responsible state or local officials will exercise their best efforts to protect the public and those efforts will include the activation of the EBS in a most expeditious manner. Furthermore, while focusing upon the effectiveness of the Commonwealth and FCC-approved

⁵⁰ *Id.*

⁵¹ *Id.* at 37.

⁵² Massachusetts Emergency Broadcast System Operational Plan, *supra*, at 2 (Exh. 1 to Boulay Affidavit). Intervenorers argue, contrary to the clear language of the Massachusetts EBS Operational Plan, that “[t]here has been no assessment made as to how long it would take to activate the EBS through WROR and then transmit that activation to WCGY.” Motion at 17. We believe this statement to be a product of careless draftsmanship.

Emergency Broadcast System, we should not overlook the fact that, as we found above, Applicants' contract with sister stations WLYT and WHAV is in itself sufficient to satisfy the NRC's public alerting requirements. Thus, there are multiple reasons why no significant safety issue was created by the repudiation of the letter of agreement by WCGY.

Materially Different Result

The third part of the criteria for reopening a closed record requires the Intervenor to demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.⁵³ We note again that the record on the Seabrook licensing proceeding has closed and we have found the SPMC to be adequate and implementable. Given our conclusions in the foregoing section on the significance of the issues raised by the motion, we need not dwell long on whether the Intervenor's allegations would have us change our minds.

As our discussion of the safety significance of the Intervenor's assertions demonstrates, the Commonwealth of Massachusetts has an EBS network in place which has been approved by the FCC and the state and which is technically capable of prompt public notification of the general public within the Seabrook EPZ. In addition, the Governor of the Commonwealth or his appointed representative will use his best efforts to alert the public in the most efficient manner possible under the circumstances.

Had the Intervenor's newly proffered evidence been considered initially by the Board, the only result that we can even envision would be a direction to the Applicants to revise the SPMC to provide for activation of the Merrimac Valley portion of the EBS through WROR if WCGY cannot be reached in a timely manner. However, given the fact that Applicants have established that their arrangement with WLYT and WHAV meets regulatory requirements, we lack authority to require the Applicants to revise the SPMC in that respect.⁵⁴ However, we believe that a worthwhile enhancement of the public alerting scheme can be realized by defining in the SPMC the procedures for activating the EBS through WROR in the event that WCGY cannot be contacted at the time of an emergency. Moreover, we commend, but cannot require, Applicants' continued readiness to renew its negotiations with WCGY and the Massachusetts EBS.

⁵³ 10 C.F.R. § 2.734(a)(3).

⁵⁴ The NRC Staff's Response invites the Board to incorporate a "fundamental flaw" standard in its analysis of the safety significance of the Intervenor's concern. See *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-903, 28 NRC 499, 506 (1988). We agree with the Staff. Under the fundamental flaw analysis, if an identified defect in the plan is readily correctable, the defect does not amount to a fundamental flaw that would preclude a reasonable assurance finding that the plan is adequate. Even if such a change were necessary to comply with the NRC's alerting requirements, correcting the SPMC to include specific procedures to activate the EBS through Station WROR would not require a significant revision to the plan.

FIVE FACTORS REGARDING LATE-FILED CONTENTIONS

Even though the motion fails for the reason that it does not raise a significant safety issue, in evaluating a motion to reopen a closed record we must also address the factors to be applied in making a determination to admit or deny a late-filed contention. These familiar factors are: (1) Good cause, if any, for failure to file on time; (2) the extent to which the petitioner's interest will be protected; (3) the extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record; (4) the extent to which the petitioner's interest will be represented by existing parties; and (5) the extent to which the petitioner's participation will broaden the issues or delay the proceeding. 10 C.F.R. § 2.714(a)(1)(i)-(v).

For the reasons set out in our conclusion, above, that Intervenor's motion is not timely (10 C.F.R. § 2.734(a)(1)), we also conclude that they have not provided good cause for failure to file on time. Accordingly, the Intervenor has a very substantial burden with respect to the other four factors.⁵⁵

As is often the case with respect to the late-filed contention criteria, factors two (the availability of other means whereby the petitioner's interest will be protected) and four (the extent to which the petitioner's interest will be represented by existing parties) weigh in favor of the Intervenor. However, the Commission has observed that the second and fourth factors are "accorded less weight, under established Commission precedent, than factors one, three and five."⁵⁶ Furthermore, this Board has held that where one seeks to reopen a closed record, more weight is given to the third and fifth factors, and late-filed contentions should be rejected even though factors one, two, and four weigh in Intervenor's favor.⁵⁷

As to factor five, the admission of the EBS contention would broaden the issues and delay this proceeding. The Intervenor admits that the admission of the contention would lengthen the proceeding.⁵⁸ The Intervenor argues that the "degree to which the issues before the Board will be broadened and the degree of the delay that will be occasioned by the admission of the contention" should be considered.⁵⁹ They claim that the focus of their contention is narrow, that discovery on the matter will be minimal, and that hearings on the matter will not be lengthy. However, the Intervenor's motion places the Board on notice that

⁵⁵ *E.g., Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-289, 2 NRC 395, 398 (1975).

⁵⁶ *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241 (1986); *South Carolina Electric and Gas Co.* (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 NRC 881, 895 (1981).

⁵⁷ *See Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-89-3, 29 NRC 51, 59, *aff'd*, ALAB-915, 29 NRC 427 (1989).

⁵⁸ Motion at 12.

⁵⁹ *Id.*

additional filings on this issue are to be expected.⁶⁰ The Intervenor's motion also alludes to other issues that have yet to be fleshed out.⁶¹ With this uncertainty in mind, we do not have confidence in the Intervenor's assertion that the delay in the proceeding by the admission of the late-filed contention will be minimal. This factor weighs against the admission of the contention.

With respect to the last of the five factors to be weighed (the extent to which the Intervenor will contribute to a sound record), the Commission has stated that a petitioner should address "with as much particularity as possible the precise issues it plans to cover, identify its prospective witnesses, and summarize their proposed testimony."⁶² The Intervenor must also demonstrate that they possess "special expertise on the subjects which [they seek] to raise."⁶³

We have already discussed the factual deficiencies in Intervenor's argument. But for this instant purpose we revisit the affidavit of Robert Boulay, who is qualified to testify in his role as Director of the Massachusetts Civil Defense Agency about his perspective of the Massachusetts EBS. He has not revealed an expertise respecting the SPMC or the technical aspects of the broadcast system. He states that the nonparticipation of WCGY precludes operation of the EBS in the EPZ.⁶⁴ We have, of course, already found this proposition not to be true. Mr. Boulay's affidavit is given largely to a description of mechanics of the EBS network in Massachusetts. He states that while the Applicants maintain a letter of agreement with WLYT-FM and WHAV-AM, those stations cannot activate the EBS in the Merrimac Valley operational area.⁶⁵ He concludes that while WLYT/WHAV may be able to transmit an informational message provided by NHY to its listening public, "that message will not reach the rest of the public who do not happen to be listening to those radio stations."⁶⁶ Moreover, Mr. Boulay explains that while in theory NHY could call the Governor of Massachusetts and have him activate the EBS on a statewide basis by activating

⁶⁰ *Id.* at 11 n.4. Indeed, during the drafting of this Memorandum and Order we received the Intervenor's Basis Motion dated November 22, 1989. That motion seeks to litigate the issue of whether WLYT-FM/WHAV-AM has adequate broadcast coverage in the Massachusetts EPZ. However, the Basis Motion raises subissues that do not portend simplistic litigation: the breadth of WLYT's listening audience, WLYT's participation in the EBS network, the adequacy of the Applicants' preemergency information, FEMA's finding of adequacy with respect to the notification system, and the ability of NHY to activate the EBS system without a letter of agreement with WCGY. Notwithstanding the potential for delay or the lack of delay that the litigation of these matters may portend, our ruling on the instant motion obviates the need to address these issues.

⁶¹ Motion at 16 n.5. These issues include the question of whether NHY's letter of agreement with station WLYT-FM/WHAV-AM is still functional given the fact that the Massachusetts EBS no longer recognizes the NHY ORO as a responsible local organization authorized to request activation of the EBS.

⁶² *Braidwood*, CLI-86-8, *supra*, 23 NRC at 246, citing with approval *Mississippi Power and Light Co. (Grand Gulf Nuclear Station, Unit 1)*, ALAB-704, 16 NRC 1725, 1730 (1982); accord, *Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2)*, ALAB-918, 29 NRC 473, 483-84 (1989).

⁶³ *Seabrook*, ALAB-918, *supra*, 29 NRC at 483.

⁶⁴ Motion, Attach. D, Affidavit of Robert Boulay Regarding the Voiding of the EBS Letters of Agreement.

⁶⁵ *Id.* at 2-4.

⁶⁶ *Id.* at 4.

station WROR in Boston, "there does not appear to exist any provision for insuring that notification is made to the public in the EPZ within the 15 minutes required by NUREG 0654, FEMA-REP-1, Revision 1, Appendix 3."⁶⁷ Nor is there reason to believe that the Governor or any state activating agency could activate the EBS within the regulatory time period by calling WCGY directly, he states, because WCGY's telephone lines are all busy on occasion.⁶⁸ We have evaluated and rejected on the reliable record before us the major thrust of Mr. Boulay's possible contribution to a reopened record. Also in that connection, the proffered affidavit of Mr. A. Anthony Delsy, Vice President and General Counsel of the Arbitron Company offers little prospect for a contribution to any reopened record. His views on the listenership of Station WLYT (very small) has been long conceded by Applicants but is hardly material to the public alerting scheme which does not depend upon the normal listenership of the respective radio stations. We conclude that the third factor weighs against Intervenors.

The balancing of the five factors set forth in 10 C.F.R. § 2.714(a)(1)(i)-(v) weighs against the admission of the Intervenors' late-filed contention.

CONCLUSION

For the foregoing reasons, the Intervenors have failed to meet the Commission's standards under 10 C.F.R. § 2.734 for reopening the record in this proceeding.

ORDER

The Intervenors' Motion to Admit Late Filed Contention and Reopen the Record on the SPMC Based upon the Withdrawal of the Massachusetts E.B.S. Network and WCGY and the Intervenors' Motion to Add an Additional Basis

⁶⁷ *Id.* at 5.

⁶⁸ *Id.* We note that neither the Intervenors' Motion nor Mr. Boulay's Affidavit alleges that there is no assurance that the Governor could reach WROR in a timely manner because all of its lines may be temporarily busy.

to the Late Filed Attached Contention to the Motion of November 9, 1989, are denied.

**THE ATOMIC SAFETY AND
LICENSING BOARD**

**Richard F. Cole
ADMINISTRATIVE JUDGE**

**Kenneth A. McCollom
ADMINISTRATIVE JUDGE**

**Ivan W. Smith, Chairman
ADMINISTRATIVE LAW JUDGE**

**Bethesda, Maryland
January 8, 1990**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ivan W. Smith, Chairman
Dr. Richard F. Cole
Dr. Kenneth A. McCollom

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(ASLBP No. 82-471-02-OL)
(Offsite Emergency Planning)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

January 9, 1990

MEMORANDUM AND ORDER
(Denying Intervenor's Motion to Reopen Record Regarding
Proposed Amendment to Operating License Application)

On October 26, 1989, the NRC published in the *Federal Register* a notice that New Hampshire Yankee had requested an amendment to Facility Operating License No. NPF-67 proposing that a backup air supply be connected to the Containment Building Compressed Air System at the Seabrook Station.¹ Intervenor New England Coalition on Nuclear Pollution, Massachusetts Attorney General, and Seacoast Anti-Pollution League, on November 17, 1989, filed with this Board a motion to reopen the record and to admit a contention on the pro-

¹ 54 Fed. Reg. 43,634 (Oct. 26, 1989).

posed license amendment.² On November 19, 1989, Applicants filed an answer to Intervenor's Motion attaching (as Attachment "A") a letter withdrawing the application for the amendment. Intervenor has not commented upon the withdrawal.

ORDER

Intervenor's motion is denied as moot.

**FOR THE ATOMIC SAFETY
AND LICENSING BOARD**

**Ivan W. Smith, Chairman
ADMINISTRATIVE LAW JUDGE**

Bethesda, Maryland
January 9, 1990

²Intervenor's Motion to Reopen the Record and Admit Late-Filed Contention Regarding Proposed Amendment of Seabrook Operating License Application, November 17, 1989.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Administrative Law Judge:

Morton B. Margulies

In the Matter of

Docket No. 30-05004-MLA
(ASLBP No. 90-599-01-ML)
(Byproduct Material License
No. 22-08799-02)

NORTHERN STATES POWER
COMPANY
(Pathfinder Atomic Plant)

January 10, 1990

RULES OF PRACTICE: STANDING

Where requestor for standing provides no nexus between the injury claimed and the proposed licensing activity, the claim of injury is purely speculative and legally insufficient to establish standing.

RULES OF PRACTICE: STANDING

A person who regularly commutes past the entrance of a power plant site, sought to be decommissioned, may be presumed to have the requisite interest that she might be affected by the decommissioning, and meets the judicial standards for standing under 10 C.F.R. § 2.1205(g).

MEMORANDUM AND ORDER

(Request for Hearing)

I. BACKGROUND

On November 17, 1989, Citizens for Responsible Government, Inc. (CRG), Technical Information Project (TIP), South Dakota Resources Coalition (SDRC), and Catherine M. Hunt jointly filed a "Supplement to Request for Hearing." The filing was in response to a Memorandum and Order of October 24, 1989 (LBP-89-30, 30 NRC 311), that requested additional information from the filers for the purpose of deciding the issue of standing. The three organizations submitted additional information to support their claim of standing. Mrs. Hunt also submitted additional information and requested that her interest be represented by SDRC.

On December 5, 1989, as authorized, Licensee Northern States Power Company (NSPC) submitted an answer to the "Supplement to Request for Hearing." It asserts that CRG, TIP, and SDRC have failed to meet standing requirements and that the request for a hearing should be denied.

In this Memorandum and Order, findings will be made that CRG and TIP have failed to meet standing requirements and that their hearing request shall be denied. Further, SDRC will be found to have standing and to have fulfilled the requirements for the holding of a hearing, and therefore its request for a hearing will be granted. Additionally, schedules will be set for allowing the parties the opportunity to file objections to the participation of Judge Jerry R. Kline as a special assistant in the proceeding and permitting SDRC to respond to "Licensee's Request for Clarification or Reconsideration of Memorandum and Order (Hearing Request), dated October 24, 1989," of November 15, 1989.

In the Memorandum and Order of October 24, 1989, additional information was sought from the Requestors on the elements that comprise the judicial standard for standing. As pertinent, for an organization to have standing it must show injury in fact to its organizational interests or to the interest of members (or in the case where it has no members, sponsors) who have authorized it to act for them. Where the organization is depending upon injury to the interest of its members or sponsors to establish standing, the organization must provide with its petition identification of at least one member or sponsor who will be injured, a description of the nature of that injury, and an authorization for that organization to represent that individual in the proceeding. The injury in fact must be arguably within the zone of interests protected by statutes covering the proceeding.

II. STANDING

A. CRG

CRG is a nonprofit corporation whose purpose among other things is to act to protect the environment of South Dakota. It has no members and relies upon representing the interest of sponsor Donald Pay, its secretary-treasurer, for representational standing.

CRG alleges that Mr. Pay resides in Rapid City, South Dakota, within approximately 1 mile of Interstate 90. Rapid City is some 350 miles from the Pathfinder site. Relying on an extract from the NSPC decommissioning plan, it asserts that truck shipments of low-level radioactive waste from the decommissioning will be routed along Interstate 90 en route to Hanford, Washington, and will pass within a mile of Pay's residence.

CRG claims that an accident involving a truck shipment of radioactive waste from the Pathfinder Plant would result in the scope of radioactive material that would injure Pay. It stated that it would cause him to receive an increased dose of radiation resulting in an increased risk of contracting cancer or other debilitating disease or condition. It is further claimed that Pay would be injured from "noncatastrophic impacts of transport of radioactive waste" and he would be injured in the same manner stated previously.

In its "Licensee's Response to Supplement to Request for Hearing," of December 5, 1989, Licensee does not take issue with the showings by CRG and the other organizations in establishing the elements for standing, of identification of at least one member or financial sponsor who will be injured by the proposed action, and authorization by the member or sponsor for the organization to represent that person in the proceeding.

NSPC contests CRG's showing of injury in fact. It asserts that the transportation-related claims of injury are conjectural, hypothetical, and unsubstantiated and therefore do not meet the judicial standards for injury in fact. It claims that no basis is provided for believing that there is a realistic danger of a transportation accident on Interstate 90 in Rapid City, South Dakota, or at any other location. Licensee further asserts that no basis is provided for believing that an accident at the location would release radioactivity to the environment, or that the radioactivity released either as a result of an accident or otherwise would be sufficient to produce the health effects claimed.

Licensee in support of its position cites *Exxon Nuclear Co.* (Nuclear Fuel Recovery and Recycling Center), LBP-77-59, 6 NRC 518 (1977). The proceeding involved a proposed fuel recovery and recycling facility in which a petitioner, who lived more than 100 miles from the proposed facility, claimed standing on the assertion that there was likelihood that spent fuel rods would be shipped via the L&N railroad which passed near her home and rental property, and, that, if

an accident occurred in that vicinity, it would cause her bodily harm, loss of life, or loss of income.

The Atomic Safety and Licensing Board denied the petition for lack of standing on the basis that the "allegations of possible physical and/or economic injury are entirely speculative in nature, being predicated on the tenuous assumptions that the spent fuel will be shipped by the named carrier, and that an accident might occur in the area" proximate to her properties.

As NSPC, I too am satisfied from the submittals that CRG and the other organizations have satisfied the requirements for standing insofar as the representational aspects. I further find that CRG and TIP have not established the necessary elements of injury in fact for standing but that SDRC has done so.

For CRG to validly claim an injury in fact to its sponsor Pay, who is located 350 miles from the decommissioning site, it must show a reasonable opportunity of his being injured arising from the decommissioning process or from a credible accident involving it. There must be some causal relationship between the proposed decommissioning and the injury alleged. Mr. Pay is located far from the decommissioning site so that he cannot be presumed to have an interest that might be affected by the decommissioning.¹ CGR has provided no nexus between the injury claimed and the proposed decommissioning. Without such connection, the claim of injury is purely speculative and legally insufficient to establish standing.

CRG's case is somewhat stronger than that of the petitioner in *Exxon Nuclear*, cited above. In that proceeding, the expected route of movement of the spent fuel was not established. Here there is a reasonable likelihood that the truck shipments of waste will move via Interstate 90 through Rapid City. However, the critical element in both cases, the link between the injury claimed and the proposed licensing activity, remains absent.

Nuclear waste safely and regularly moves via truck and rail throughout the nation under regulations of the NRC and Department of Transportation (49 C.F.R. Parts 100-179). The mere fact that additional radioactive waste will be transported if decommissioning is authorized does not *ipso facto* establish that there is a reasonable opportunity for an accident to occur at Rapid City, or for the radioactive materials to escape because of accident or the nature of the substance being transported.

¹ With respect to power plant licensing, there is a "50-mile radius" rule, which provides as a general proposition that a person whose base of normal activities within 50 miles of the site can be presumed to have an interest that might be affected by reactor construction or operation. In promulgating the Informal Rules the Commission rejected the "50-mile radius" rule for materials licensing. This was done because of potential lower radiation exposure involved in particular materials licensing cases as compared to power reactor licensing cases. The Commission also rejected a proposal to create a presumption that anyone residing and working outside of a 5-mile radius of the site where nuclear materials in question are possessed does not have standing. 52 Fed. Reg. at 8272 (1989).

Absent a claim by CRG that the subject decommissioning plan is deficient or defective in a manner so as to cause the injuries described, CRG's presentation is inadequate to establish standing and its request for a hearing must be denied.

B. TIP

TIP is a nonprofit corporation whose purpose among others is to become involved in judicial proceedings when such involvement will allow more input that could affect the public in the areas of the environment and public health.

TIP seeks standing based on its organizational interest. Its corporate offices are in Rapid City, South Dakota, also near Interstate 90. It has an executive director and employees that work in the office. TIP's concern is injury to these employees.

TIP basically repeats the same allegations that CRG did in attempting to establish injury in fact. Based on the similar record, the ruling on standing must be the same for TIP as it was for CRG, for the same reasons. TIP's presentation is inadequate to establish standing and its request for a hearing must be denied.

C. SDRC

SDRC, of Brookings, South Dakota, is a nonprofit organization among whose purposes is to protect the environment and promote conservation. Its Chairperson is Catherine M. Hunt, who is retired. Her home is in Garretson, South Dakota, approximately 10 miles northeast of the Pathfinder plant. She states that in the summer the prevailing winds are from the south and that she passes the entrance to the plant en route to Sioux Falls, South Dakota, generally once or twice a week.

Ms. Hunt provides a list of alleged inventories of the radionuclide content of the waste proposed for decommissioning, transport, and disposal. She asserts that high levels of radioactivity still remain within the plant and that it will be available for release to the environment during decommissioning.

She states that "incorrectly decommissioned plant" will result further in a continued high risk of cancer and other debilitating diseases. She feels especially at risk because the drinking water in Garretson exceeds the water quality standard for radium. Ms. Hunt claims she can be further injured by contamination of the soil, air, and water by incomplete decommissioning. She asserts that radioactive debris, not properly cleaned up or left, will continue to decay on site and that an improper or incomplete decommissioning will result in the wind carrying particulates from the plant site to her residence and water supply.

She also alleges, based on an abstract from the decommissioning plan, that the reactor vessel will move by rail through Garretson a few blocks from her

home. She fears increased risk of cancer and other debilitating conditions either from an accident or simply from the passage of the highly radioactive vessel so close to her home.

Ms. Hunt wants to be represented in the proceeding by SDRC of which she is Chairperson.

NSPC makes the same argument against standing involving the rail transportation of the vessel as it did in regard to the truck transport of the radioactive waste.

In regard to Hunt's claim based on residence within 10 miles of the plant, Licensee asserts that the stated injury is clearly conjectural, hypothetical, and speculative. It states that SDRC and Hunt do "not even allege that Licensee's decommissioning plan will cause the claimed injury." Licensee claims that SDRC only alleges that injury will result from an "incorrectly decommissioned plant" or by "incomplete decommissioning" but that there is no claim that Licensee's decommissioning plan is "incorrect or incomplete." It denies that the standard for injury in fact has been met.

In making its argument against SDRC's standing, Licensee wholly ignores Ms. Hunt's regular commute which takes her to the entrance of the plant once or twice a week. The plant site may have a significant radionuclide inventory from past power plant operations as alleged. Placing Ms. Hunt in such close proximity to the plant on a regular basis in conducting her normal activities is sufficient to establish the requisite interest that she might be affected by the decommissioning.

Compare Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 57 (1979). In that proceeding involving an application for an amendment to enable the expansion of the capacity of the spent fuel pool, a petitioner who resided 45 miles distant from the plant and who engaged in canoeing in the general vicinity of the plant, on that basis was found to have established the requisite interest. Commuting from a residence 10 miles from the plant, in whose direction prevailing winds from the plant blow during the year, strengthens the grounds for invoking the presumption of having the requisite interest.

The inapplicability of the "50-mile radius" rule to these type of proceedings does not bar the application of a similar kind of presumption as long as it is based upon the circumstances of the case as they relate to the factors set forth in 10 C.F.R. § 2.1205(g), 54 Fed. Reg. at 8272.

When the presumption of having the requisite interest is applied, it becomes unnecessary to establish a causal relationship between the claimed injury and the requested action. *North Anna, supra*. No useful purpose would be served in conducting an exercise to determine whether all of the claimed injuries have a causal connection with the proposed decommissioning.

SDRC has established the requisite injury in fact for standing and to represent the interest of Catherine M. Hunt in this proceeding.

III. AREAS OF CONCERN

I ruled in the Memorandum and Order of October 24, 1989, that it was premature to determine whether the Requestors' specified areas of concern are germane to the subject matter of this proceeding without first determining the standing of the Requestors. Now that the first task has been accomplished, the issue of the sufficiency of SDRC's concerns should be addressed. SDRC and the other Requestors had jointly submitted concerns in the "Request for Hearing" of September 20, 1989.

The rules of practice for informal materials licensing adjudications provide in 10 C.F.R. § 2.1205(d)(3) that a requestor, in filing a request for a hearing, must describe in detail the requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and in section 2.1205(g) that in ruling on a request for a hearing, the presiding officer shall determine that the specified areas of concern are germane to the subject matter of the proceeding.

Licensee, in its October 6, 1989 answer to the September 29, 1989, "Request for Hearing," argues that for the most part the areas of concern are too broadly stated for meaningful comment by Licensee and that it would be appropriate for the presiding officer to require greater specificity before granting the hearing request.

There is some merit to Licensee's argument about a lack of specificity in Requestor's concerns. However, the procedural rules help to fashion this result. Section 2.1231 of 10 C.F.R. provides that within 30 days of the presiding officer's entry of an order granting a request for a hearing, the NRC Staff should file the hearing file in the docket. The process requires that the requestor must enunciate its areas of concern and have them ruled upon to establish the right to a hearing, before the hearing file is first made available.²

The Commission evidently recognized this handicap of requestors of only having limited information available to them before having to enunciate concerns and set a relaxed standard as to what would be sufficient to satisfy the regulations.

The Commission in its responses to comments for promulgating 10 C.F.R. Part 2, Informal Hearing Procedures for Materials Licensing Adjudications, stated:

²In footnote 4 at page 8 of "Licensee's Response to Supplement to Request for Hearing," NSPC argues that because SDRC attached three pages of excerpts from Licensee's decommissioning submittals to the NRC, it must be assumed that it had available a copy of the plan as filed with NRC. Even accepting the argument as totally valid, the plan is but a part of the hearing file. See 10 C.F.R. § 2.1231(b).

This statement of concerns *need not be extensive*, but it must be sufficient to establish that the issues the requestor wants to raise regarding the licensing action *fall generally* within the range of the matters that properly are subject to challenge in such a proceeding.

54 Fed. Reg. 8272 (emphasis supplied).

It further stated:

Of course, the intervenor is required to identify the areas of concern it wishes to raise in the proceeding, which will provide the presiding officer with the *minimal* information needed to ensure the intervenor desires to litigate issues germane to the licensing proceeding and therefore should be allowed to take the additional steps of making a full written presentation under § 2.1233.

Id. (emphasis supplied).

Of Requestor's nine stated concerns, the first six are of matters that fall generally within the range of issues that properly are subject to challenge in such a proceeding and provide the minimal information needed to ensure that the issues sought to be litigated are germane to the licensing proceeding. The first six concerns meet the requirements of sections 2.1205(d)(3) and 2.1205(g).

Concern seven must be declared invalid because of vagueness. Concerns eight and nine are not substantive concerns of a type recognized by section 2.1205(d)(3) and therefore they cannot be considered as concerns within the regulations.

Licensee contends that Requestor's nine stated concerns appear on their face to be inappropriate for consideration in this proceeding. Each of the concerns and the objections will be discussed in turn.

Requestor's first concern is that the extent of present contamination must be clearly known in order to effectively decommission the site. It claims that the decommissioning plan inadequately documents present contamination at the site. Licensee contends that the proposed amendment does not seek to decommission "the site" but only the Fuel Handling Building and the Reactor Building, and the concern cannot extend beyond the scope of the proposed amendment.

Licensee does not object to the substance of the concern, only to its extent. Apparently Licensee would limit the scope of the concern to the two buildings. This is too narrow an interpretation of the scope of the proceeding. Surely, the land upon which the buildings are located must be considered as part of the proceeding. The use of the buildings could have resulted in there being a source of radioactive contamination that has spread and impacted on surrounding areas. Such contaminated environs would be interrelated with the use of the buildings, and any final decommissioning of the buildings would have to account for such contamination. Exterior contamination resulting from the use of the buildings is within the scope of the proposed amendment for final decommissioning of the buildings.

Licensee's extreme position of limiting the scope of the proceeding to the buildings would turn the regulatory process for protecting health and safety into a meaningless exercise. SDRC has submitted a valid concern.

SDRC's second concern is that a history of past activity at the site is required to elucidate areas at the site and offsite where contamination may have spread. It claims that the decommissioning plan inadequately documents historical activity including partial decommissioning activities.

Licensee claims that concerns that extend to site areas and potential offsite areas where contamination may have spread are inappropriate because the application only extends to the two buildings and not to other areas of the Pathfinder site. Licensee further contends that if Requestor has a concern with earlier decommissioning activities carried out under other licenses, the appropriate remedy is to file a request for an order to show cause pursuant to 10 C.F.R. § 2.206.

Again Licensee is concerned with the extent of the concern and not its substance. It would limit documentation of past activities, as to where contamination may spread, to the two buildings. For the reason given in respect to the first concern, the Licensee's objection is without merit. SDRC's concern of documenting where contamination has or may spread, on and offsite, is a proper issue for review in this proceeding.

As to its third concern, Requestor states that the decommissioning plan and safety analysis take inadequate measures to ensure worker protection, long-term health monitoring, and long-term health care for workers who may be injured. It prefaces its concern with the assertion that a high number of workers on the original decommissioning of the Pathfinder Plant died of various cancers and that one worker had acute radiation poisoning. Licensee disputes that the deaths and radiation poisoning occurred and asserts that the occupational impacts of that decommissioning are not germane to this proceeding.

Licensee's criticism of Requestor's third concern does nothing to dispute the validity of SDRC's concern predicated on the allegation that the decommissioning plan and safety analysis take inadequate measures to ensure worker protection and to provide monitoring and health care.

Licensee's claim as to there being no deaths or injuries goes to the merits and there is no way to decide the issue at this juncture. It is a matter in dispute.

The assertion of Licensee that the partial decommissioning is a wholly separate matter and that it cannot be considered in this proceeding is without merit. This is the final decommissioning of buildings that were previously partially decommissioned by the same Licensee. The two decommissionings are interrelated. Any inadequacies in the prior decommissioning should not be permitted to be perpetuated in the final decommissioning. That is not to say that the entire prior decommissioning is to be rehashed.

It is recognized that Requestor's third concern does not directly relate to possible injury to Ms. Hunt. However, it is in accordance with Commission practice to permit a party in licensing proceedings to raise matters that are beyond its narrow interest. Requestor's third concern is valid and shall be considered.

SDRC's fourth concern relates to the standards and procedures that are to be applied to determine which wastes will be classified as low-level radioactive waste requiring disposal in a low-level radioactive waste facility and which waste will be disposed of in a municipal solid waste landfill. SDRC "oppose[s] any application of the BRC policy to this decommissioning."

Requestor's fifth concern questions which standards and procedures are to be applied to determine the release of lands for unrestricted use. Requestor wants to ensure that such standards and procedures will not result in a release of lands for unrestricted use, if such release would endanger public health and safety.

Licensee submits a single response to concerns four and five. It asserts that the standards referred to are not specifically identified, and to the extent that they are identified as standards embodied in NRC regulatory requirements, they may not be subject to challenge in this proceeding. It cites 10 C.F.R. § 2.1239.

Requestor's concerns about which standards and procedures will be employed to protect health and safety in classifying waste for disposal and releasing land for unrestricted use are valid and are a proper matter for consideration. It has a right to reasonable assurance that the correct standards and procedures are applied. As to its opposition to applying "BRC policy," SDRC's position is not fully understood. NRC has not promulgated regulations establishing a standard for waste that is "below regulatory concern." To the extent SDRC opposes the establishment of such a standard, the licensing proceeding is not the proper forum for such concern.

Licensee's assertion that NRC regulatory standards may not be subject to challenge in this proceeding is not the total story. Section 2.1239(b), cited by Licensee, provides that a party to an adjudication may petition for a Commission regulation to be waived or for an exception to be made for the particular proceeding. The manner in which this may be accomplished is detailed in that section.

Requestor's sixth concern is about the procedures to be used to dismantle, load, and ship radioactive portions of the facility. It seeks to limit both exposures of the workers and the general public to dangerous radiation and asbestos and the inadvertent release or spread of contamination.

Licensee asserts that packaging and transportation are governed by 49 C.F.R. Parts 100-179, and environmental impacts of transportation of waste from the site are specified in Table S-4 of 10 C.F.R. § 51.52. It states that they are not subject to litigation in this proceeding and are beyond its scope.

It does not appear from concern six, as was also the case with concerns four and five, that Requestor seeks to challenge regulations. Rather it is concerned as to whether proper standards and procedures will be employed to limit possible dangerous exposures and the spread of contamination. To the extent there are regulatory standards in place, it would appear that Requestor's concerns can be reduced or eliminated with Licensee providing assurance that those standards will be followed in the decommissioning. Concern six is valid and will be considered.

For concern seven, Requestor states that the factual and legal adequacy of the decommissioning plan, the safety analysis, and the environmental report and environmental analysis are of concern. Licensee states that the concern is so lacking in specificity that it provides no meaningful information and does not establish that the issue falls generally within the range of matters that properly are subject to challenge.

Licensee's objection is meritorious. The concern is extremely vague and does not meet the minimum standard for satisfying section 2.1205(d)(3). The minimal information needed to ensure that Requestor's desire to litigate issues germane to the proceeding is not provided. Concern seven is rejected.

Requestor's eighth concern goes to the legal adequacy of the procedures in the proceeding. The concern specifies due process, adequate discovery, ex-parte communication, environmental scoping, and implementation of NEPA.

Licensee counters that the Commission's Rules of Practice in 10 C.F.R. Part 2 govern, that they are not readily subject to challenge, and that concern about hearing procedures is not a "concern about the licensing activity" addressed in section 2.1205(d)(3).

Although it is a concern of all litigants that the procedures followed in a proceeding be fair and afford due process, it is not a concern contemplated by section 2.1205(d)(3). The regulation relates to substantive concerns about the licensing activity and not the adequacy of the hearing process that may follow. Despite the fact that Requestor raises a concern that is not recognized as being valid under the cited regulation, it has the protection afforded by the Commission's Rules of Practice to satisfy this concern.

SDRC's mention of "environmental scoping" and "implementation of NEPA" is so vague that it does not meet the minimum standard for satisfying section 2.1205(d)(3). That part of concern eight is also rejected.

SDRC's ninth stated concern is that it reserves the right to narrow or broaden its enumerated areas of concern as documents are provided. Licensee asserts that raising additional issues at a later time would be tantamount to making an untimely filing which is controlled by 10 C.F.R. § 2.1205(k) and requires the requestor to justify the untimeliness.

Requestor's ninth concern, like its eighth, is not a concern that comes within section 2.1205(d)(3). It raises a procedural hearing issue governed by the Commission's Rules of Practice.

Newly obtained information may be used to modify or supplement existing issues. However, a party has no unconditional right to raise new issues because of new information. The raising of new issues in this type of proceeding is not unlike raising new issues in operating license application proceedings. In those instances the Commission requires that a petitioner satisfy a five-point test in justification, contained in 10 C.F.R. § 2.714(a)(1). *Commonwealth Edison Co.* (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 244 (1986).

Subpart L, Informal Hearing Procedures for Adjudications in Materials Licensing Proceedings, has a comparable provision, contained in 10 C.F.R. § 2.1205(k), which a party would have to satisfy before raising a new issue. It requires a showing that there is an excusable basis for the new filing and that granting of the petition will not result in undue prejudice or undue injury to any other participant in the proceeding.

Concern nine, like concern eight, is not a substantive concern about the licensing activity and therefore does not satisfy the requirements of section 2.1205(d)(3). However, the cited rule covers its concern.

SDRC has satisfied the requirements of subsections 2.1205(d)(3) and 2.1205(g) as to six of its concerns. In so doing it has fulfilled all of the requirements of subsection 2.1205(g) for granting it a hearing. It was previously found in this Memorandum that SDRC has met the judicial standard for standing. In the "Memorandum and Order (Hearing Request)," of October 24, 1989, 30 NRC at 312, it was reported that SDRC's petition for hearing was timely filed. The SDRC request for a hearing is therefore granted.

IV. ADDITIONAL MATTERS — SCHEDULING

A. Possible Objection to Special Assistant

In a statement in the October 24, 1989, "Memorandum and Order (Hearing Request)," Administrative Judge Jerry R. Kline, appointed as a special assistant, called attention to certain facts relating to a family connection with the Licensee, which he believes do not disqualify him from participation in the proceeding.

His participation has been held in abeyance pending (1) a determination of who the parties to the proceeding will be and (2) a review of any objection from the parties as to his acting in the case.

Now that it has been determined that NSPC and SDRC are the parties to the proceeding, they are given 10 days from the service of this Memorandum and

Order to file any objection to Judge Kline's participation. Any objection shall be made as prescribed in 10 C.F.R. § 2.704(c).

B. Permitting SDRC to Respond to "Licensee's Request for Clarification or Reconsideration of Memorandum and Order (Hearing Request), Dated October 24, 1989"

In its "Request for Hearing," dated September 20, 1989, SDRC suggested that any hearing date regarding the proceeding await completion of all necessary documentation more particularly the environmental assessment. In the "Memorandum and Order (Hearing Request)," dated October 24, 1989, I stated that the suggestion is consistent with the procedures set forth in the regulations, which will be followed.

The October 24, 1989 Memorandum was prepared in the erroneous belief that NSPC never filed an answer to the "Request for Hearing." This prompted NSPC, to file on November 15, 1989, "Licensee's Request for Clarification or Reconsideration of Memorandum and Order (Hearing Request), dated October 24, 1989." In it, Licensee requests that the presiding officer make clear that the identification of the issues and the submission of written presentations will not be delayed pending completion of the environmental assessment or safety evaluation report." None of the Requestors responded to the NSPC filing.

Now that SDRC has been named as a party to the proceeding, I want its view on this procedural matter before making a decision. SDRC is given 10 days from the service of this Memorandum and Order to file an answer to Licensee's request.

SDRC should understand that in the future any failure to respond to a filing within the time allotted by the regulations will result in no further opportunity to file, absent specific authorization to do so.

ORDER

Based on all of the foregoing, it is hereby ORDERED that:

1. The request for a hearing by CRG and TIP is denied;
2. The request for a hearing by SDRC is granted;
3. NSPC and SDRC are given 10 days from the service of this Order to file any objections to Administrative Judge Jerry R. Kline's participation in the proceeding as a special assistant; and
4. SDRC is given 10 days from the service of this Order to file an answer to NSPC's November 15, 1989, "Licensee's Request for Clarification or

Reconsideration of Memorandum and Order (Hearing Request) Dated October 24, 1989."

Morton B. Margulies, Presiding
Officer
ADMINISTRATIVE LAW JUDGE

Bethesda, Maryland
January 10, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

B. Paul Cotter, Jr., Chairman
Glenn O. Bright
Jerry Harbour

In the Matter of

Docket Nos. 50-250-OLA-4
50-251-OLA-4
(ASLBP No. 89-584-01-OLA)
(Pressure-Temperature Limits)

FLORIDA POWER AND LIGHT
COMPANY
(Turkey Point Nuclear Generating
Plant, Units 3 and 4)

January 16, 1990

The Licensing Board sustains the prior issuance of an immediately effective license amendment by granting the Licensee's Motion for Summary Disposition on the last contention remaining in this proceeding. The Board finds that the Intervenor seeks to litigate matters outside the scope of the proceeding, fail to adequately establish the existence of a disputed material fact as to those matters within the scope of the proceeding, and seek to impose testing procedures not required under 10 C.F.R. Part 50.

RULES OF PRACTICE: SUMMARY DISPOSITION

The purpose of the summary disposition procedure set out in 10 C.F.R. § 2.749 is to avoid holding hearings on issues where there is no genuine dispute of material fact. *Statement of Policy on Conduct of Licensing Proceedings*, CLI-81-8, 13 NRC 452, 457 (1981). See *Houston Lighting and Power Co.* (Allens

Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 550 (1980).

RULES OF PRACTICE: SUMMARY DISPOSITION (BURDEN OF PROOF)

Where a summary disposition motion is supported by affidavit, 10 C.F.R. § 2.749(b) requires the opposing party to state specific facts, rather than rely on mere allegations or denials, to show that there is a genuine issue of fact. Absent such a showing, summary disposition will issue if the movant has satisfied his burden of establishing that no genuine issue as to any material fact exists.

REGULATIONS: COMPLIANCE METHODS

Appendix H to 10 C.F.R. Part 50 provides that reactors in an integrated surveillance program (ISP) must have "*similar*" design and operating features; it does not require *identical* operating features. 10 C.F.R. Part 50, Appendix H, II.C.1 (1989).

RULES OF PRACTICE: CHALLENGE TO COMMISSION REGULATIONS

Proposals to modify Commission-imposed testing methodologies that a Licensee is authorized and obligated to follow must be dismissed as an attack on a Commission regulation, and, to the extent they constitute a petition for rulemaking, are outside the jurisdiction of a Licensing Board.

TECHNICAL ISSUES DISCUSSED

Fracture Toughness/Ductility
Neutron Fluence.

MEMORANDUM AND ORDER **(Ruling on Motion for Summary Disposition** **and Dismissal of Proceeding)**

Licensee Florida Power and Light Company moves for summary disposition of the remaining contention in this challenge by Intervenor, the Center for Nuclear Responsibility and Joette Lorion, to amendments to the licenses for the Turkey Point Units 3 and 4 nuclear power plants. The challenged amendments

changed the technical specifications governing combined pressure and temperature (P/T) limits for the operation of the two units. Licensee's motion, filed pursuant to 10 C.F.R. § 2.749 (1989), is supported by the Nuclear Regulatory Commission Staff (Staff). For the reasons set out within, we grant the motion.

I. BACKGROUND

A. Procedural

Turkey Point Units 3 and 4 are 760-MW pressurized water reactors which began full-power operation in 1972 and 1973, respectively. The reactors are operated in accordance with Technical Specifications approved by the Nuclear Regulatory Commission (NRC). Because the reactors operate under high pressures and temperatures that, *inter alia*, affect the steels making up the reactor vessels, pressure-temperature (P/T) limits were specified for the first 10 years of effective full-power operation. By the end of 1988 the two units had not quite achieved 10 years of effective full-power operation.

During 1988, Licensee applied for license amendments for Turkey Point Units 3 and 4 in anticipation, in part, of the expiration of the P/T limits for the first 10 years and the need to establish new P/T limits applicable up to 20 years of effective full-power operation. Amendments No. 134 to License No. DPR-31 for Unit 3 and No. 128 for License No. DPR-41 were issued on January 10, 1989, following Staff issuance of a Safety Evaluation and a Final Determination of No Significant Hazards pursuant to 10 C.F.R. § 50.91(a)(4) (1988). The amendments incorporated revised P/T limit curves governing the service life for each Turkey Point unit up to 20 effective full-power years (EFPY).

Following a 1988 petition to intervene and oral argument, Intervenor were admitted to the proceeding along with two of their three contentions as modified by the Board. LBP-89-15, 29 NRC 493 (1989). By letter to the Board, dated September 8, 1989, following an exchange of information between the parties, Intervenor withdrew Contention 3 which concerned the revised P/T limits as they might be affected by the copper content of weld material.

The remaining contention at issue here, Contention 2, questions whether Licensee's calculation and prediction of the P/T limits for the reactor vessel materials of Turkey Point Unit 4 meet the Commission's requirements for such programs.

Contention 2 reads as follows:

That the revised temperature/pressure limits that have been set for Turkey Point Unit 4 are non-conservative and will cause that reactor unit to exceed the requirements of General Design Criterion 31 of Appendix A to 10 CFR Part 50, which requires that the reactor coolant pressure boundary be designed with a sufficient margin to insure that, when stressed

under operating, maintenance, testing, and postulated accident conditions, (1) the boundary behaves in a non-brittle manner and (2) the probability of a rapidly propagating fracture is minimized.

Petitioners contend that the new pressure/temperature limits could cause the reactor vessel to exceed these requirements because the Licensee has based its calculation of the predicted RTNDT for Unit 4 partly on surveillance capsule V test results from Turkey Point Unit 3 rather than predicting the RTNDT for Unit 4 based on Unit 4 capsule V surveillance capsule data — a practice which is not scientific, not valid, and could cause the Unit 4 reactor to behave in a brittle manner which would make the chances of a pressure vessel failure and resultant meltdown more likely. Petitioners contend that predictions of RTNDT and pressure/temperature limits derived from the shift in nil-ductility transfer should be based only on plant-specific Unit 4 data, especially in light of the fact that the only tests ever performed on Unit 4 weld specimens demonstrated that the weld material in the Unit 4 vessel was 30% more brittle than that of Unit 3. Because Unit 4's weld material is more embrittled, Petitioners contend that the FPL Integrated Surveillance program does not meet the Requirements of 10 CFR Appendix G Parts V.A and V.B [sic], and 10 CFR Appendix H [sic], including Appendix H Parts IIC and IIIB [sic]. Finally, Petitioners contend that the surveillance capsule V for Unit 4 should be tested to establish the new pressure/temperature limits and should the testing indicate that the RTNDT for Unit 4 has passed the 300-degree Fahrenheit screening criterion set by the NRC, Unit 4 should be shut down until it is demonstrated that the Unit 4 reactor pressure vessel can maintain its integrity beyond this limit.

Petitioners' Amended Request for Hearing and Petition for Leave to Intervene at 7-8. Appendices G and H referenced in the contention are appendices to Part 50 of Title 10 of the *Code of Federal Regulations*.

In our earlier decision, we rejected, as an impermissible attack on a Commission rule, that portion of Contention 2 that challenged the Turkey Point Integrated Surveillance Program approved in 1985 pursuant to the Commission's rules under 10 C.F.R. Part 50, Appendix H, ¶ IIC (1989). LBP-89-15, *supra*, 29 NRC at 503. We also rejected any issue with respect to pressurized thermal shock as being outside the scope of the notice of hearing. *Id.* at 503-04. Consequently, Contention 2, as admitted, was limited to whether Licensee's *conduct* of its integrated surveillance program satisfies regulatory requirements. Two subissues subsumed in that question are: (1) whether the Turkey Point integrated surveillance program has an adequate contingency plan; and (2) whether a "difference of less than 5% in the operating time between the two units is simply not significant and cannot form a basis for the contention." *Id.*

The ultimate question that Intervenor ask is whether Licensee's testing program gives adequate assurance that the materials making up the beltline (roughly the midpoint) of the Unit 4 reactor vessel at Turkey Point will be tough enough over the life of the plant to function safely under the pressure, temperature, and irradiation to which those beltline materials will be subjected.

B. Technical

The purpose of P/T limits is to ensure that the reactor coolant's pressure and temperature during normal operation (including reactor heating, cooldown, and inservice and hydrostatic testing) are restricted so as not to pose the threat of brittle fracture of the reactor vessel. Resistance to brittle fracture, also known as fracture toughness or ductility, is a function of the metal's chemical composition, temperature, and neutron irradiation. Fracture toughness decreases: (1) with decreases in temperature; (2) with increases in neutron fluence; and (3) with increases in copper and nickel content. Neutron fluence means the total number of fast neutrons that have impacted on the metal as a result of operating the reactor. Only the effects of temperature and neutron fluence remain at issue here. As the reactor operates, neutron fluence causes the temperature characteristics of the metal making up the reactor vessel to change.

Four principles of the metallurgy of reactor vessels that bear on this dispute over the P/T limits for Unit 4 are the concept, calculation, and prediction of: (1) Charpy V-notch tests; (2) the Reference Temperature for Nil Ductility Transition (RT_{NDT}); (3) Adjusted Reference Temperature (ART); and (4) neutron irradiation. These concepts form the underpinning for the calculation of P/T limits which, as noted, are specified because, if pressure becomes too great, the metal making up the reactor vessel may become subject to the risk of brittle fracture if the operating temperature is below a specified range. Curves that plot the P/T limits are set out in the challenged amendments. See, e.g., Fig. 3.1-1a through 3.1-1c of Amendments 134 and 128.

Charpy V-Notch Test

The effect of changes in temperature on the fracture toughness of steel are measured by a standardized test known as a Charpy V-notch test. The energy of a hammer absorbed in fracturing a metal specimen gives a measure of the metal's fracture toughness. Charpy tests performed over a range of temperatures have established that fracture toughness has three levels, an "upper shelf" at higher temperatures where metals exhibit tough, ductile behavior; a "lower shelf" at lower temperatures where metals exhibit brittle behavior; and a transition range of temperatures between the upper and lower shelves where the metal's behavior turns from ductile, or fracture resistant, to brittle.

Reference Temperature for Nil Ductility Transition

For typical reactor metals, the transition occurs within a temperature range from 150 to 200°F. Affidavit of Stephen A. Collard¹ on Contentions 2 and 3, ¶¶ 7-12 (Collard Affidavit). The Reference Temperature for Nil Ductility Transition (RT_{NDT}) is a standardized temperature selected to identify that transition, a somewhat arbitrarily defined boundary at which a given metal's behavior changes from ductile, or fracture resistant, to brittle.²

Adjusted Reference Temperature (ART)

One measure of the fracture toughness of the reactor vessel's metal is the vessel's ART. ART is the change in temperature of the reactor vessel calculated as a function of fracture toughness and change in fracture toughness plus a margin of safety. Elliot Affidavit, ¶7. The Nuclear Regulatory Commission prescribes a method for calculating ART in NRC Regulatory Guide 1.99, Revision 2, "Radiation Embrittlement of Reactor Vessel Materials" (May 1988).

Neutron Irradiation

The final concept that bears on this dispute is the effect of neutron irradiation described in the Collard Affidavit:

When fast neutrons (i.e., neutrons with energies equal to or greater than 1.0 Million Electron Volts (MEV)) collide with atoms within a metal, the neutrons dislocate the atoms within the metallic lattice.¹ These dislocations reduce the fracture toughness and increase the RT_{NDT} of the metal. These effects become more pronounced with increases in the total neutron fluence (i.e., cumulative number of fast neutrons striking an area over time). . . . The shift in RT_{NDT} . . . caused by irradiation is defined in 10 CFR Part 50 Appendix G.II.E as the temperature difference between the fracture toughness curves for an irradiated and unirradiated metal, when measured at 30 ft-lbs of absorbed energy.

In general, the incremental impacts of neutron fluence on ferritic steels are greatest when the fluence is on the order of 10^{18} n/cm² (neutrons per square centimeter). When fluences

¹Mr. Collard is a metallurgist and Section Supervisor for the Codes and Programs Section of Materials, Codes, and Inspections for Florida Power and Light Company. Mr. Collard, B.S., Metallurgical Engineering, Polytechnic Institute of Brooklyn (1967), has completed post-graduate study in metallurgy. He has 22 years' experience in failure analysis and metallurgical failure analysis with Consolidated Edison Company and Florida Power and Light Company.

²The RT_{NDT} is defined by the American Society of Mechanical Engineers (ASME) Code, Section III NB 2331 as the greater of (1) the NDT, or (2) the temperature corresponding to 60°F less than the temperature where a sample exhibits 35 mils lateral expansion and can absorb 50 ft-lbs of impact during a Charpy V-notch test." Collard Affidavit, ¶ 13.

are on the order of 10^{19} n/cm², the neutron radiation damage tends to reach a saturation point and little additional damage occurs with increasing fluence.

¹ Neutrons with less than 1 MEV (including so-called "thermal neutrons") generally are insufficiently energetic to dislodge atoms from a metallic lattice, and therefore their existence may be neglected in considering neutron radiation impacts on metals. In general, the energy spectra of neutrons escaping from reactor cores do not vary greatly among commercial reactors. In a plant such as Turkey Point which has reactors with the same designs and fuel loading patterns, the neutron spectra on the reactor walls of the two units are essentially identical.

Collard Affidavit, ¶¶ 14-15.

C. Regulatory Requirements

The NRC regulatory scheme establishing metallurgical requirements for reactor pressure vessels and a testing methodology for ensuring that those requirements are met is set out in 10 C.F.R. Part 50 (1989). Briefly, General Design Criterion 31 (GDC 31) (one of some fifty-three criteria set out in Part 50, Appendix A) describes the design criteria for fracture prevention of the reactor coolant pressure boundary, which includes the welds at the reactor vessel bellline. GDC 31 requires that

when stressed under operating, maintenance, testing, and postulated accident conditions (1) the boundary behaves in a nonbrittle manner and (2) the probability of rapidly propagating fracture is minimized. The design shall reflect consideration of service temperatures and other conditions of the boundary material under operating, maintenance, testing, and postulated accident conditions and the uncertainties in determining (1) material properties, (2) the effects of irradiation on material properties, (3) residual, steady state and transient stresses, and (4) size of flaws.

10 C.F.R. Part 50, Appendix A, IV, Criterion 31 (1989).

To meet the foregoing criteria, 10 C.F.R. § 50.60(a) requires that:

all lightwater nuclear power reactors must meet the fracture toughness and material surveillance program requirements for the reactor coolant pressure boundary set forth in Appendices G and H to this part.

Appendix G, "Fracture Toughness Requirements," specifies requirements for ferritic materials, i.e., various carbon, stainless, and alloy steels, over the life of their service as a pressure containment boundary. To satisfy these fracture toughness requirements, Appendix G requires that the material be tested in accordance with procedures set out in Appendix H. The Appendix H tests must show that certain predicted fracture toughness values will be satisfied at the end of the service period, in the case 20 effective full-power years (EFPY). 10 C.F.R. Part 50, Appendix G. Both appendices rely on and incorporate by

reference standard codes and procedures of the American Society of Mechanical Engineers and the American Society for Testing and Materials.

Appendix H authorizes use of an integrated surveillance program (ISP) for testing materials "for a set of reactors that have similar design and operating features." Appendix H, ¶ II.C. Under the ISP, irradiated test materials from one reactor may be used to predict the fracture toughness of the materials in both reactors. The ISP must be approved by the NRC Staff, and it must have a contingency plan

to assure that the surveillance program for each reactor will not be jeopardized by operation at reduced power level or by an extended outage of another reactor from which data are expected.

Appendix H, ¶ II.C.3.

Licensee's technical specifications for the Turkey Point units require it to calculate P/T limits for those reactor vessels based on the ART for the vessels using the method described in Appendix G to the American Society for Mechanical Engineers Code. The methodologies used to calculate both ART and the P/T limits for Turkey Point contain a number of conservatisms, intended to establish a large margin of safety. *See generally* Reg. Guide 1.99, Rev. 2.

It is worth reiterating the significance of these technical and regulatory requirements. They are summed up in the Staff's Safety Evaluation of Licensee's requested P/T changes at page 6:

the fracture toughness of the steel in a reactor pressure vessel wall is determined primarily by the following factors: (1) the particular material (composition and metallurgical history), (2) the accumulated irradiation level (neutron fluence) to which the material is exposed, and (3) the temperature of the material. In a reactor pressure vessel, significant loadings result from the internal pressure and thermal gradient through the vessel wall thickness during heatup and cool down. Since the fracture toughness of the vessel material decreases with decreasing temperature, P/T limits are required during normal reactor operation and tests to control operational stresses to the reactor vessel. Furthermore, because the fracture toughness of the vessel material decreases with increasing neutron irradiation (i.e., time duration of operation), a material surveillance program is required to monitor changes in the fracture toughness properties of the reactor vessel belline material over the lifetime of the vessel. The P/T limits are periodically revised to take into account additional test data from the surveillance program on the changes in the fracture toughness properties due to irradiation.

D. Turkey Point Unit 4

The Turkey Point vessels, as they pertain to Contention 2, are described as follows:

The designs of the reactor vessels for Turkey Point Units 3 and 4 are identical. The reactor vessels are cylindrical in shape, with hemi-spherical domes at each end of the cylinders. The

reactor vessels are approximately 40 feet high and 14 feet in diameter. The reactor vessels are constructed of carbon steel almost eight inches thick, with a .156 inch (minimum) stainless steel cladding on the inside wall.

The Turkey Point reactor vessels were manufactured by welding together several cylindrical shell forgings. Therefore, unlike most reactor vessels in this country, the Turkey Point reactor vessels only have circumferential welds and do not have any longitudinal welds.

The internal designs of the reactor vessels for Turkey Point Units 3 and 4 are also identical. Each reactor vessel has a reactor core with space for 157 fuel assemblies. Additionally, each reactor vessel has a thermal shield between the reactor core and the reactor vessel wall. The purpose of the thermal shield is to reduce the impact on the reactor vessel wall of neutrons escaping from the reactor core.

Each of the reactor vessels for Turkey Point Units 3 and 4 contains surveillance capsules. These capsules contain specimens of the material from the reactor vessel shell forgings and reactor vessel welds. The capsules are located near the inside wall of the reactor vessel along the beltline region (i.e., mid-plane) of the reactor core. Therefore, the neutron fluence received by the capsules is representative of the fluence received by the reactor vessel. The capsules are periodically removed and tested to predict the impact of neutron irradiation on the materials in the reactor vessel wall. Since 1985, the individual surveillance programs for Turkey Point Units 3 and 4 have been integrated into a single program, and the results of this program have been used to predict the fracture toughness of the reactor vessels for both units. . . .

Collard Affidavit, ¶¶ 3-6. The most limiting, i.e., vulnerable, of the pressure vessel materials at Turkey Point Unit 4 is the material making up the welds at the beltline.

Since startup in 1972 and 1973, the two Turkey Point units have had differing operational histories. The capacity factors (that is, the equivalent percentage of time during the year that the reactors were operated at full power) for the two units have varied during certain years. For example, Unit 3's capacity factors during 1981, 1984, 1986, and 1987, respectively, were: (1) 16.1%; (2) 52.6%; (3) 75.9%; and (4) 15.3%. The capacity factors during the same years for Unit 4 were: (1) 78.5%; (2) 81.8%; (3) 29.7%; and (4) 45.1%. Collard Affidavit, ¶ 68; Intervenor's Response at 21.

In addition, in 1981, Unit 4 had two overpressurization events in which the pressure in the reactor coolant system exceeded the technical specification limits in one instance by 700 psi and in another by 325 psi. Collard Affidavit, ¶ 69. The levels were substantially below the reactor vessel's design pressure of 2485 psig and normal operating pressure of 2335 psig. Elliot Affidavit, ¶ 25.

II. POSITIONS OF THE PARTIES

A. Licensee's Motion for Summary Disposition³

"Licensee's Motion for Summary Disposition of Intervenor's Contentions" (Licensee's Motion) asserts that its conduct of the Integrated Surveillance Program for Turkey Point complies with regulatory requirements and is conservative. Licensee asserts that: (1) Neither its Integrated Surveillance Plan nor the difference in operating time between the two units can form a basis for a contention; and (2) it has an adequate contingency plan. Licensee's motion is supported by the Collard Affidavit. We find Mr. Collard competent for this purpose pursuant to 10 C.F.R. § 2.749(b) (1989). See note 1, *supra*.

Licensee asserts that the calculation of P/T limits for periods up to 20 EFPY are based upon test results from all surveillance capsule material removed from the vessels up to 1985 and that those data are sufficient for predicting the fracture toughness of the vessels. Licensee asserts that: "In determining the effects of neutron irradiation, the total amount of neutron fluence (and not the rates or duration of accumulation) is what is important." Licensee's Motion at 14. Mr. Collard has calculated that the neutron fluences in the two units differ by less than 3%. Collard Affidavit at 43, Table 5. Consequently, Licensee asserts that any differences in operating history during particular years are insignificant. Similarly, a 3% difference in total amount of neutron fluence is asserted to be insignificant and certainly not sufficient to require the use of the material in the Unit 4 surveillance capsule V at this time.

Licensee asserts further that two overpressurization events that occurred in Unit 4 in 1981 are outside the scope of this proceeding because they occurred prior to NRC acceptance of the Turkey Point surveillance program in 1985. In addition, Licensee notes that NRC concluded in a March 1984 report that the two overpressurization events did not affect the structural integrity of the Unit 4 vessel. Collard Affidavit, ¶ 69.

Licensee asserts that Intervenor's insistence that only Unit 4 data can be used to calculate the RT_{NDT} for Unit 4 is a challenge to Licensee's NRC-approved Integrated Surveillance Program used since 1985 in determining the P/T limits for Unit 4. Licensee's Motion at 17-18. Licensee argues that Intervenor's assertion in regard to Unit 4 Capsule T is based on 1976 tests predating the Integrated Surveillance Program and, therefore, the assertion is outside the scope of this proceeding. On the other hand, Licensee asserts that the similarity in

³ We inadvertently directed Licensee to file a Reply to Intervenor's Response to Licensee's Motion for Summary Disposition. Because our rules do not provide for such a reply (see 10 C.F.R. § 2.749; *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-87-26, 26 NRC 201, 204, *reconsideration denied*, LBP-87-29, 26 NRC 302 (1987)), we have not considered Licensee's Reply. This decision relies solely on the record of the case prior to Licensee's Motion for Summary Disposition, the Motion itself with supporting documentation, Intervenor's Response and supporting documentation, and the NRC Staff's Response and supporting documentation.

fluence and chemical composition of the Units 3 and 4 welds renders the 1976 Unit 4 test to be of little significance. Rather, Licensee continues, the higher Unit 4 test result is explainable by scatter in the test data or the difference in flux lot for the Unit 4 weld material test specimen. Collard Affidavit, ¶¶ 41, 43.

Finally, Licensee asserts that in any event all the surveillance capsule data, including the 1976 data from Unit 4, were used to calculate the Turkey Point Unit 4 limits, thereby ensuring the conservatism of the ultimate calculation. *Id.* To test its assertion, Licensee had Mr. Collard perform a calculation to determine the possible impact on Unit 4 P/T limits without using the results of the Integrated Surveillance Program. Mr. Collard's calculations showed that the results are "almost identical." *Id.*, ¶¶ 71-74.

With respect to the adequacy of its contingency plan, Licensee asserts that Appendix A simply requires that test material to predict fracture toughness will be available in the event of an extended outage of a given reactor. Licensee asserts that that contingency pertains primarily to single-unit plants which can be required to have comparable irradiated material available from another source. However, Turkey Point is made up of two units and, therefore, comparably irradiated material is available from either reactor in the event one of them experiences reduced power levels or an extended outage.

B. Intervenor's Response

"Intervenor's Response to Licensee's Motion for Summary Disposition of Intervenor's Contentions" (Intervenor's Response) attached twenty-four exhibits. Intervenor's response also includes "Intervenor's Statement of Material Facts as to Which There Is a Genuine Issue to Be Heard with Respect to Intervenor's Contention 2" (Intervenor's Statement), and Attachment A, a letter dated October 18, 1989, signed by Dr. George C. Sih, Professor of Mechanics at Lehigh University (Sih Letter). Neither this letter nor the one included as Appendix 11, also from Dr. Sih and dated October 10, 1985, is in the form of an affidavit.

Intervenor's Response was completed with the electronic filing of the "Affidavit of Joette Lorion on Contention No. 2" (Lorion Affidavit). Ms. Lorion is Director of the Center for Nuclear Responsibility, Inc., and a professional research consultant and analyst who provides research data to writers, lawyers, and other professionals on a variety of topics. Ms. Lorion states that she has prepared the responses to Licensee's motion and the accompanying exhibits. Lorion Affidavit, ¶¶ 4-5. However, Ms. Lorion does not claim any expertise in metallurgy, or in materials or mechanical engineering. Nor does she provide any indication of training or specific experience, other than her intervention efforts, that would qualify her to address the technical issues in this proceeding within the meaning of 10 C.F.R. § 2.749(b) (1989). We cannot find her to be competent for subsection (b) purposes.

Intervenors assert that Licensee's calculations of RT_{NDT} and P/T limits are not conservative for Turkey Point Unit 4. Intervenors contend that predictions of those limits should be based solely on plant-specific Unit 4 data because the only tests performed on Unit 4 capsule test materials in 1976 demonstrate that the weld material in the Unit 4 vessel is 30% more brittle than that in Unit 3. Intervenors' position has four principal bases.

First, Intervenors assert that the loading history, that is, the configuration of the fuel assemblies in the cores of the two reactor vessels, differs over a period of time.⁴ Second, Intervenors assert that the initial test results on the material withdrawn from Unit 4 in 1976 were too high and did not agree with predictions. Third, Intervenors assert that the different capacity factors in 4 of 16 years of operation would result in a different RT_{NDT} for Unit 4. In this regard, Intervenors contend that Licensee's measurements do not consider the effects of "strain rate," and therefore are questionable. "Strain rate, as the Intervenors would apply it here, means the rate of deformation of either a sample undergoing Charpy V-notch testing, or local deformation rates "in the reactor vessel where defects prevail." Sih Letter at 1-2 (emphasis added). The first applies (by Dr. Sih's own words) to the methodology for Charpy V-notch testing and calculations of ART and RT_{NDT} , a methodology already defined by ASME and ASTM Codes (incorporated by reference in Part 50), and the second applies to hypothetical damage conditions beyond regulatory requirements for determination of P/T limits. Finally, Intervenors assert that Licensee does not have a written contingency plan as required by Appendix H to account for any difference in capacity factors or to predict RT_{NDT} in the event one of the units has an extended outage.

C. NRC Staff's Position

The NRC Staff supports Licensee's Motion. Staff's response is supported by the Affidavit of Barry J. Elliot.⁵ We find Mr. Elliot competent within the meaning of 10 C.F.R. § 2.749(b) (1989).

⁴In support of this disagreement, Intervenors rely on their Exhibit 11, a letter from Dr. George Sih, dated October 10, 1985 (apparently at 2). Nowhere in this letter does Dr. Sih refer to, or show any awareness of, fuel core design changes in the reactors. It is not clear whether Dr. Sih is referring to possible differences in *core loading histories* or to *structural loading histories*. A fair reading of this letter suggests that he is referring to plant-specific differences in structural loading histories resulting from postulated pressurized thermal shock, an issue not within the bounds of this proceeding.

⁵Mr. Elliot is a Senior Materials Engineer in the Materials and Chemical Engineering Branch of the NRC's Office of Nuclear Reactor Regulation. Mr. Elliot, B.S., Materials Engineering, Rensselaer Polytechnic Institute (1988), has 20 years' experience in materials testing, failure analysis, nondestructive examination test procedures, and fusion weld procedures. He has conducted reviews of the Turkey Point Integrated Surveillance Program and Licensee's report documenting surveillance data from Turkey Point Unit 3-Capsule V. He assisted others in the preparation of the Safety Evaluation for the two license amendments at issue here.

Staff agrees with Licensee that the Turkey Point Integrated Surveillance Program has been properly conducted and meets the requirements of Appendix H to 10 C.F.R. Part 50. Staff also agrees that the procedures for materials sampling and calculations have been performed in accordance with Regulatory Guide 1.99, Revision 2, and agrees further that Licensee has a contingency plan that meets the requirements of Appendix H. Staff Response at 8-12.

Finally, Staff agrees with Licensee that the calculation of total accumulated neutron irradiation (neutron fluence) provides a more accurate measure of irradiation damage and fracture toughness than does a comparison of the operating times and power levels of the two units. Hence, Staff concludes that the small difference in operating times of less than 5% and the differences in capacity factors and power levels of the two units are insignificant and do not invalidate Licensee's calculations and predictions based on the surveillance data, for RT_{NDT} and P/T limits for effective full-power operation up to 20 EFPY.

D. Controlling Law

Licensee's motion for summary disposition is filed pursuant to 10 C.F.R. C.F.R. § 2.749 (1989).⁶ Section 2.749 authorizes any party to move for a decision "in that party's favor as to all or any part of the matters involved in the proceeding." The purpose of the summary disposition procedure is to avoid holding hearings on issues where there is no genuine dispute of material fact.

⁶The rule, in essence modeled after Federal Rule of Civil Procedure 56 (see *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), ALAB-182, 7 AEC 210, 217 (1974)), provides in pertinent part that

(a) Any party to a proceeding may move, with or without supporting affidavits, for a decision by the presiding officer in that party's favor as to all or any part of the matters involved in the proceeding. There shall be annexed to the motion a separate, short, and concise statement of the material facts as to which the moving party contends that there is no genuine issue to be heard. . . . Any other party may serve an answer supporting or opposing the motion, with or without affidavits, within twenty (20) days after service of the motion. There shall be annexed to any answer opposing the motion a separate, short and concise statement of the material facts as to which it is contended that there exists a genuine issue to be heard. All material facts set forth in the statement required to be served by the moving party will be deemed to be admitted unless controverted by the statement required to be served by the opposing party. The opposing party may within ten days after service respond in writing to the new facts and arguments presented in any statement filed in support of the motion. No further supporting statements or responses thereto shall be entertained. . . .

(b) Affidavits shall set forth such facts as would be admissible in evidence and shall show affirmatively that the affiant is competent to testify to the matters stated therein. The presiding officer may permit affidavits to be supplemented or opposed by depositions, answers to interrogatories or further affidavits. When a motion for summary decision is made and supported as provided in this section, a party opposing the motion may not rest upon the mere allegations or denials of his answer; his answer by affidavits or as otherwise provided in this section must set forth specific facts showing that there is a genuine issue of fact. If no such answer is filed, the decision sought, if appropriate, shall be rendered.

* * *

(d) The presiding officer shall render the decision sought if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.

Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 457 (1981). See *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 550 (1980).

Section 2.749 requires the moving party to file a statement of material facts as to which "there is no genuine issue to be heard." Those facts that are not controverted will be deemed to be admitted. If the motion is supported by affidavit, subsection (b) requires that the opposing party may not rest on mere allegations or denials but must state specific facts to show that there is a genuine issue of fact. Absent such a showing, the decision sought shall be issued. However, case law makes clear that the movant has the burden of showing the absence of a genuine issue as to any material fact. *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 753 (1977). Here, the movant has filed an affidavit in support of its burden to establish the absence of a genuine issue of material fact, a burden that remains even if the opposing evidentiary material is inadequate. See *id.*, citing *Adickes v. Kress & Co.*, 398 U.S. 144, 159 (1970). Conversely, the rule makes absolutely clear that Intervenor may not rest on "mere allegations or denials," but must answer setting forth "specific facts showing there is a genuine issue of fact." 10 C.F.R. § 2.749(b); *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-584, 11 NRC 451, 453 (1980); see also *First National Bank of Arizona v. Cities Service Co.*, 391 U.S. 253, 289-90, *reh'g denied*, 393 U.S. 901 (1968).

III. DECISION

A. Undisputed Facts

We have gone to some length to describe both the subject matter of this dispute and the regulatory framework within which it takes place because we have concluded that, in essence, the matters raised by Intervenor are either explained by Licensee or constitute an attack on the methodology of the Commission's testing program for reactor vessel materials. In short, Licensee's obligations in assessing margins of safety for the pressure boundary are controlled by the requirements of Part 50. In determining whether Licensee's work in this area adequately protects the public health and safety, they, and we, are bound by that regimen.

The undisputed facts include the following. At the beginning of operation, Turkey Point Units 3 and 4 each had eight reactor surveillance capsules containing material specimens and dosimeters. In each unit, five of the eight capsules contained material specimens of the shell forgings of the reactor vessel; the remaining three capsules contained material specimens of the shell forgings, the reactor welds, and material in the heat-affected zones around the welds. Collard,

¶ 37. In 1985, the NRC issued license amendments authorizing Turkey Point to conduct an integrated surveillance program. Under this program, the results of tests of the surveillance capsules from each unit are combined to predict the fracture toughness of the reactor vessels for Turkey Point Units 3 and 4. Collard, ¶¶ 6, 44-45.

The fracture toughness of the Turkey Point reactor vessels' material is primarily dependent upon chemical composition, temperature, and neutron irradiation. The fracture toughness of these metals decreases with decreases in temperature, with increases in neutron fluence, and with increases in copper and nickel content. *Id.*, ¶¶ 7-16. The purpose of P/T limits is to ensure that, during normal operation, the pressure and temperature of the reactor coolant are maintained within limits sufficient to ensure an adequate margin against postulated brittle fracture of the reactor vessel. *Id.*, ¶¶ 7-8.

To date, three capsules containing weld specimens have been removed from Turkey Point Units 3 and 4, namely Capsule T from Unit 4 and Capsules T and V from Unit 3. Weld material is the critical material for purposes of calculating the Turkey Point P/T curves. *Id.*, ¶¶ 27, 42. The measured results from all surveillance capsules are as follows:

Table 2
Results of Charpy V-Notch Tests for Weld Capsules
from Turkey Point Units 3 and 4

Unit	Capsule	Date of Test	Capsule Fluence (n/cm ²)	Delta RT _{NDT} *
3	T	1975	5.68 × 10 ¹⁸	155°F
4	T	1975-76	6.05 × 10 ¹⁸	225°F
3	V	1985-86	1.229 × 10 ¹⁹	180°F

*(Measured at 30 ft-lbs).

Id. at 30. The measured results from Capsules T and V from Unit 3 fell within the predicted bounds. *Id.*, ¶ 43.

Licensee has conducted its materials testing program in accordance with Commission requirements as set out in Part 50 and Appendices G and H thereto. Collard Affidavit, ¶¶ 37-49. The results of the Turkey Point Integrated Surveillance Program have met the Commission's regulatory requirements. Elliot Affidavit, ¶¶ 15-17.

B. Discussion

Nevertheless, Intervenor challenge measurements and predictions of Unit 4's reactor vessel pressure boundary safety on the grounds that the results are nonconservative and not scientific because the results and predictions are not based on data derived from surveillance capsule V in Unit 4. Specifically, Intervenor assert that Licensee's ISP does not satisfy regulatory requirements because: (1) the 1976 test data results from Unit 4 exceed the bounds of the methodology and require that future measurements for Unit 4 be made solely from Unit 4 data; (2) Licensee failed to consider matters such as strain rate, differences in core loading and annual capacity factors between Unit 3 and Unit 4, and the effect of the 1981 pressurization events in Unit 4, thereby invalidating Licensee's test results; (3) Licensee erred in relying on Unit 3 data alone under the ISP; and (4) Licensee does not have an adequate contingency plan as required by Appendix H.

We are tempted to (and could well) decide this case in Licensee's favor on the basis of the absence of a sworn affidavit by a qualified affiant in support of Intervenor's opposition to Licensee's motion, concluding that Licensee is entitled to a decision pursuant to 10 C.F.R. § 2.749(b) for failure to oppose the motion as required. *North Anna*, ALAB-584, *supra*. However, we find that Licensee has carried its burden of proof on the merits and there remains no "genuine issue to be heard" 10 C.F.R. § 2.749(d); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-83-32A, 17 NRC 1170, 1174 n.4 (1983). That conclusion is inescapable from an analysis of the pleadings.

Intervenor's first basis for objection, the 1976 results from the Unit 4 surveillance capsule, simply misapprehends the significance of the measured result in the context of the methodology. The Elliot Affidavit explains in respect to the Unit 4 Capsule T surveillance sample results that the measured increase in RT_{NDT} of Unit 4 Capsule T (225°F) is within the range of scatter expected for the data. While it exceeded the mean expected value of 172°F, Regulatory Guide 1.99, Rev. 2, provides that the measured values for the increase should fall within two standard deviations of the expected mean value, or within $172^{\circ} \pm 56^{\circ}\text{F}$ (i.e., 116° to 228°F). Hence, the results from Unit 4 Capsule T provide credible data for inclusion in the integrated surveillance program. Elliot Affidavit, ¶¶ 18-20 at 9-11. See Collard Affidavit, ¶ 75. Moreover, the results from Capsule T have been included in subsequent predictions for pressure boundary safety under the Turkey Point ISP which uses data derived from both units. Collard Affidavit, ¶¶ 53, 56. Consequently, the 225° measurement in 1976 does not constitute a genuine issue of material fact.

Similarly, Intervenor's concern with failure to calculate strain rate, differences in core loading and annual capacity factors, or the significance of the 1981

Unit 4 overpressurization events are matters either that are not required by the Commission's testing regimen under Part 50 or are accounted for by the ISP testing methodology authorized at Turkey Point. *Id.*, ¶¶ 59-70, 75. While it appears that Intervenor's concern with strain rate in fact relates to fracture toughness requirements for the danger of pressurized thermal shock, a matter that has been excluded from this proceeding (*see* 10 C.F.R. § 50.61 (1989); LBP-89-15, *supra*, 29 NRC at 503-04; and note 4, *supra*), the simple fact remains that nowhere in the methodology for measuring and predicting fracture toughness for normal operations and postulated accidents is there any requirement to measure strain rate in the reactor vessel. Similarly, there is no requirement for making separate calculations for the difference in types of fuel assemblies loaded in the cores of essentially similar reactors.⁷ Finally, there is no requirement under Part 50 and the Appendices and codes upon which it is based for calculating fracture toughness based on periodic differences in fluence resulting from different annual capacity factors.

As Licensee's motion and Staff's response make clear, the foregoing considerations are subsumed in the calculation of total fluence made at the time the surveillance capsules are recovered for testing under the ISP. That calculation takes into account the entire history of measured results since both units began operation. *See generally* Collard and Elliot Affidavits.

Intervenor's assertions that the difference in operating times and capacity factors of the two reactors is significant is essentially a challenge to the Integrated Surveillance Plan (ISP). Assertions regarding the significance of different operating histories prior to acceptance of the ISP in 1985 go to matters already settled at that time by NRC'S authorization of the Turkey Point ISP. Hence, these assertions are beyond the scope of this proceeding and are not litigable.

We consider only those assertions regarding differences in operating times of the reactors since 1985, and those pertain only to whether the contingency plan should be implemented. Appendix H to Part 50 provides that reactors in the ISP must have "*similar*" design and operating features. It does not require *identical* operating features. 10 C.F.R. Part 50, Appendix H, II.C.1 (1989). Averring that they are important only to their effect on total fluences, the operating differences are not disputed by the Licensee.

Licensee attests that, in 1985, the difference between total fluence and EFPY for Units 3 and 4 was less than 10%. Since then, total predicted fluence through the end of 1990 has decreased to 3%. Collard Affidavit, ¶¶ 59-62. Because the difference in operating features between the two Turkey Point reactors was

⁷ As Intervenor note, the changed fuel loading patterns are part of Licensee's program to reduce flux (and thus total fluence) on the reactor vessel walls. Intervenor's Response at 19.

acceptable in 1985, we find, *a fortiori*, that a smaller difference today remains acceptable.

There is no evidence that Licensee has done anything other than satisfy the requirements of the integrated surveillance program approved for use at Turkey Point in 1985 pursuant to Appendix H. That ISP specifically authorizes reliance on the data from Unit 3 surveillance capsules. Intervenors' objections to the nonconservatism of that procedure have been adequately answered by Licensee which has demonstrated that the procedure takes into account the differing procedure Intervenors would require. In short, Intervenors, as noted above, would modify the Commission-imposed methodology that Licensee is authorized and obligated to follow. Those differing requirements can only be imposed by the Commission and are beyond the jurisdiction of this Board. Consequently, Intervenors' remedy is not a challenge to the Turkey Point license amendments, but rather, a petition for rulemaking seeking to revise the testing program methodology. Thus, if applicable to Contention 2 at all, Intervenors' objection to Licensee's reliance on Unit 3 surveillance capsule data from 1977 to date for predicting fracture toughness for both units is, in the last analysis, a challenge to the ISP methodology Licensee is required to follow and must be dismissed as an attack on a regulation. 10 C.F.R. § 2.758 (1989).

Intervenors' final objection, the lack of a contingency plan, is readily disposed of. The Appendix H requirement for a contingency plan is, on its face, satisfied by the existence of two similar units each with surveillance capsules installed. Intervenors appear to feel that a separate, written statement titled "Contingency Plan" is required. Intervenors' Response at 22. However, we find no requirement for any such separate written statement beyond the description of the ISP in the Turkey Point Technical Specifications. Intervenors will have to settle for that. The hallmark of Intervenors' position in this case is that the "facts" upon which they rely are simply "not susceptible of the interpretation which [Intervenors] sought to give them." *First National Bank v. Cities Service Co.*, *supra*, at 289.

IV. CONCLUSION

Pursuant to 10 C.F.R. § 2.749 (1989), the Board finds that Licensee has met its burden of proof on Contention 2, that there is no genuine issue of material fact, and that Licensee is entitled to decision as a matter of law. The Board is satisfied that the public health and safety will be protected under Licensee's conduct of its Integrated Surveillance Program. Any matter raised by the parties but not addressed herein was found by the Board either to be irrelevant or not of significance to the outcome of this decision.

Order

For all the foregoing reasons and upon consideration of the entire record in this matter, it is, this 16th day of January 1990, ORDERED:

1. That Licensee's Motion for Summary Disposition of Intervenor's Contentions is granted and License Amendment No. 134 for Turkey Point Unit No. 3 and License Amendment No. 128 for Turkey Point Unit No. 4 shall remain in full force and effect;

2. That this proceeding is dismissed; and

3. That, pursuant to 10 C.F.R. § 2.760 (1989) of the Commission's Rules of Practice, this Memorandum and Order shall become effective immediately. It will constitute the final decision of the Commission forty-five (45) days from the date of issuance, unless it is appealed in accordance with 10 C.F.R. § 2.762 (1989)⁸ or the Commission directs otherwise. *See also* 10 C.F.R. §§ 2.764, 2.785, and 2.786 (1989).

THE ATOMIC SAFETY AND LICENSING BOARD

Glenn O. Bright
ADMINISTRATIVE JUDGE

Jerry Harbour
ADMINISTRATIVE JUDGE

B. Paul Cotter, Jr., Chairman
ADMINISTRATIVE JUDGE

Bethesda, Maryland
January 16, 1989

⁸ Any party may appeal from this Decision by filing a notice of appeal within ten (10) days after service of this Memorandum and Order. Pursuant to 10 C.F.R. § 2.762 (1989), each appellant must file a brief supporting its position on appeal within thirty (30) days after filing its notice of appeal (forty (40) days if the Staff is the appellant). Within thirty (30) days after the period has expired for the filing and service of the briefs of all appellants (forty (40) days in the case of the Staff), a party who is not an appellant may file a brief in support of, or in opposition to, the appeal of the other party. A responding party shall file a single, responsive brief *only*, regardless of the number of appellant's briefs filed.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

B. Paul Cotter, Jr., Chairman
Glenn O. Bright
Jerry Harbour

In the Matter of

Docket Nos. 50-250-OLA-4
50-251-OLA-4
(ASLBP No. 89-584-01-OLA)
(Pressure-Temperature Limits)

FLORIDA POWER AND LIGHT
COMPANY

(Turkey Point Nuclear Generating
Plant, Units 3 and 4)

January 16, 1990

The Licensing Board denies a petition to intervene filed 11 months after the close of the time specified in the Notice of Opportunity for Hearing as inexcusably late, and not otherwise justified based on a consideration of the other four factors set out at 10 C.F.R. § 2.714(a)(1).

**RULES OF PRACTICE: INTERVENTION (GOOD CAUSE FOR
LATE FILING)**

While all the factors set out at 10 C.F.R. § 2.714(a)(1) must be considered and none is dispositive, the most important of the five factors is the presence or absence of "good cause" justifying the lateness of the petition. Absent "good cause," a petitioner bears a heavy burden to justify a late intervention based on the remaining four factors.

RULES OF PRACTICE: INTERVENTION (TIMELINESS)

As a general rule, a decision to remain silent, and refrain from intervening in a timely manner, is not justification for a Board to permit intervention in an untimely manner, and the Licensing Board finds no statute, regulation, policy statement, or Commission case law that even suggests that employees of an applicant or licensee are entitled to a generic exemption from the Commission's procedural rules.

RULES OF PRACTICE: INTERVENTION (TIMELINESS)

A licensing board does not foreclose the possibility that special facts might exist which would warrant a departure from the general rule that one cannot successfully stand on his rights to file an untimely petition after sitting on his rights to file a timely petition. However, mere assertions of fears of retaliation do not establish the type of special facts necessary.

RULES OF PRACTICE: INTERVENTION (TIMELINESS)

A licensing board will not assume that the fact employee might have been the victim of retaliation after date for filing timely petition to intervene has passed so infected or controlled the employee's actions prior to that date as to render him effectively incapable of exercising his rights under the Commission's rules of practice as protected by section 210 of the Energy Reorganization Act.

RULES OF PRACTICE: INTERVENTION (TIMELINESS)

While newly arising information has been recognized as "good cause" for a late-filed petition to intervene, *Consumers Power Co.* (Midland Plant, Units 1 and 2), LBP-82-63, 16 NRC 571, 577 (1982), previously available information newly acquired by a petitioner has not. *Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), LBP-84-17, 19 NRC 878, 886 (1984).

RULES OF PRACTICE: INTERVENTION (TIMELINESS)

While an early decision of the Appeal Board suggested that the door was open on the question whether publication in the *Federal Register* was sufficient, standing alone, to put potential intervenors on notice, *Pennsylvania Power and Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-148, 6 AEC 642, 643 n.2 (1973), that door was subsequently closed in *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1 and 2), ALAB-341, 4 NRC 95

(1976), wherein the Appeal Board summarily rejected a petition to intervene filed beyond the period specified in the applicable *Federal Register*.

RULES OF PRACTICE: INTERVENTION (TIMELINESS)

A claim by a petitioner that it was lulled into inaction because it relied on another party or entity to represent its interests does not constitute "good cause." See *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 796 (1977).

RULES OF PRACTICE: INTERVENTION (GOOD CAUSE FOR LATE FILING)

The existing parties, the public, and the Licensing Board have a cognizable interest in the timely and orderly conduct of licensing proceedings. Thus, the fact that petitioners were prepared to go forward with their arguments immediately and that intervention would not delay an already issued license amendment do not fully answer the policy considerations underlying the Commission's concerns under the last factor of 10 C.F.R. § 2.714(a)(1). A party has a right to discover, prior to hearing, the nature and factual bases of all other parties' litigation positions. Board refused to grant intervention under these circumstances where significant delay could be avoided only at the expense of the discovery rights of the existing parties to the detriment of the orderly and efficient conduct of any future hearing.

RULES OF PRACTICE: INTERVENTION (GOOD CAUSE FOR LATE FILING)

While a broadening of the issues due to the grant of a late-filed petition to intervene might not be of critical importance at the earlier stages of a case, the Licensing Board found this consequence to be a strong argument against such intervention where it occurs toward the end of the proceeding, particularly where no "good cause" exists to justify the delay in seeking intervention.

MEMORANDUM AND ORDER **(Denying Petition to Intervene)**

On October 19, 1988, notice was published in the *Federal Register* specifying that persons whose interest might be affected by this proceeding and who wished to participate as a party "must file [by November 18, 1988] a written petition for

leave to intervene." 53 Fed. Reg. 40,981, 40,988 (1988). Eleven months after the close of the time specified in that notice, the Nuclear Energy Accountability Project (NEAP) and its Executive Director, Thomas J. Saporito, Jr., seek leave to intervene in this proceeding.¹ Both the Licensee and the NRC Staff oppose intervention by these Petitioners, principally on standing and lateness grounds.² For the reasons set out below, we deny the petition as to both Petitioners.³

Our authority to entertain a late-filed petition for leave to intervene turns on a balancing of five factors set out in 10 C.F.R. § 2.714(a)(1). Those factors are:

- (i) Good cause, if any, for failure to file on time.
- (ii) The availability of other means whereby the petitioner's interest will be protected.
- (iii) The extent to which the petitioner's participation may reasonably be expected to assist in developing a sound record.
- (iv) The extent to which the petitioner's interest will be represented by existing parties.
- (v) The extent to which the petitioner's participation will broaden the issues or delay the proceeding.

While all five must be considered and none is dispositive, the most important of the five factors is the presence or absence of "good cause" justifying the lateness of the petition. Absent "good cause", a petitioner bears a heavy burden to justify a late intervention based on the remaining four factors. *Mississippi Power & Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-704, 16 NRC 1725, 1730 (1982); *Wisconsin Public Service Corp.* (Kewaunee Nuclear Power Plant), LBP-78-24, 8 NRC 78, 83 (1978).

I. GOOD CAUSE

Mr. Saporito advances three reasons for his failure to file a petition to intervene in this proceeding within the time specified in the Notice of Opportunity for Hearing. Those reasons are: (1) he was an employee of the Licensee; (2) he was not aware of the severe radiation damage to the Turkey Point facility; and (3) he did not have actual notice of the opportunity for a hearing. Petition

¹ Petition for Leave to Intervene (October 22, 1989) (hereinafter cited as "Petition"); Clarification of Contentions and Answer to Licensee's Response in Opposition to NEAP/Saporito Petition for Leave to Intervene (November 16, 1989) (hereinafter cited as "Clarification").

² Licensee's Response in Opposition to NEAP/Saporito Petition for Leave to Intervene (November 13, 1989); NRC Staff's Response to Petition for Leave to Intervene of Thomas J. Saporito, Jr. and the Nuclear Energy Accountability Project (November 16, 1989).

³ For a discussion of the history of this proceeding and the specific nature of the license amendments at issue, see LBP-89-15, 29 NRC 493, 495-98 (1989). In addition, in a separate Memorandum and Order issued contemporaneous with this decision (LBP-90-4, 31 NRC 54), we resolve all issues remaining in this proceeding in the Licensee's favor, and sustain the Staff's issuance of the license amendment under challenge here.

at 20; Clarification at 6. Whether viewed individually or jointly, these reasons fail to support a finding of "good cause."⁴

As a general rule, a decision to remain silent and refrain from intervening in a timely manner is no justification for a Board to permit intervention in an untimely manner. See *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-743, 18 NRC 387, 396 n.37 (1983). Mr. Saporito asserts, however, that he was unable to initially file a timely petition because he was employed during the relevant filing period by Licensee, Florida Power and Light Company, implicitly suggesting that the threat of employer retaliation explains and justifies his inaction. Petition at 6; Clarification at 20. We are unable to find, and Petitioners fail to identify, any statute, regulation, policy statement, or Commission case law that even suggests that employees of an applicant or licensee are entitled to a generic exemption from the Commission's procedural rules. We decline to author such a rule here.

Employees of an applicant or licensee are in a unique position to know of potential safety problems that might exist at a particular nuclear power facility yet may confront practical difficulties in identifying those potential problems for evaluation and, if necessary, resolution. In our view, the purpose of section 210 of the Energy Reorganization Act, as amended, 42 U.S.C. § 5851(a), "Employee Protection,"⁵ is to ensure that these potential problems are raised in a timely manner and to the proper forum by broadly prohibiting, *inter alia*, retaliation against an employee who commences or participates in any manner in a proceeding under the Atomic Energy Act of 1954 as amended.⁶

⁴ Because we find each of the reasons advanced by Mr. Saporito wanting, we need not address the question of whether otherwise meritorious but, under the applicable facts, hypothetical justifications for a late-filed petition can satisfy 10 C.F.R. § 2.714(a). In our view, they cannot. Because we read section 2.714 to require us to engage in a balancing of the competing factual equities, we believe a petitioner has an obligation to advance those reasons, and only those reasons, which in fact reasonably caused the failure to act in the timely manner. For example, reading Mr. Saporito's first three reasons for his inaction together, he in essence asks this Board to excuse his 1-year delay because, as an employee of the Licensee, he could not raise concerns he didn't have in a proceeding he knew nothing about.

⁵ In pertinent part, 42 U.S.C. § 5851 provides that:

[n]o employer . . . may discharge any employee or otherwise discriminate against any employee with respect to his compensation, terms, conditions, or privileges of employment because the employee (or any person acting pursuant to a request of the employee)—

(1) commenced, caused to be commenced, or is about to commence or cause to be commenced a proceeding under [the Energy Reorganization Act of 1974] or the Atomic Energy Act of 1954, as amended, or a proceeding for the administration or enforcement of any requirement imposed under [those Acts];

(2) testified or is about to testify in any such proceeding or;

(3) assisted or participated or is about to assist or participate in any manner in such a proceeding or in any other manner in such a proceeding. . . .

42 U.S.C. § 5851(a).

⁶ While it appears that, ordinarily, the Commission's regulations implementing section 210 contemplate that employees of an applicant or Licensee would participate in a licensing proceeding by way of testimony (see 10 C.F.R. § 50.7(a)(1)), the regulation does not exclude participation as an *intervenor* from the scope of protected activities. Moreover, the express language of section 210 clearly encompasses such participation.

The Commission has successfully argued elsewhere that the courts must construe section 210 in a manner that gives its protections practical, meaningful, and broad effect. See *Kansas Gas & Electric Co. v. Brock*, 780 F.2d 1505 (10th Cir. 1985), cert. denied, 478 U.S. 1011 (1986). Presumably, that argument applies with equal, if not greater, force to the Commission's own adjudicatory bodies. Yet, to adopt Mr. Saporito's proposition that his employment status, standing alone, constitutes "good cause" for late intervention requires that we find section 210 to be a meaningless and ineffective protection in one of the very situations and for the very class of individuals it was intended to serve. Mr. Saporito's own experience in exercising his rights under section 210 argues to the contrary.⁷ It would be inconsistent to affirmatively give effect to section 210 in one context while at the same time conclude that the statutory provision must be assumed to be ineffective in another context.

Moreover, one of the guiding principles underlying both the Commission's rules of practice and section 210 is that potentially important and significant safety information should and must be aired, identified, evaluated, and resolved in a timely manner. Thus, we are troubled by any rule that could encourage individuals to delay entering a proceeding, awaiting an opportune time to spring forth to claim intervenor status based on potentially significant safety concerns or information. Not only would such a rule wreak havoc with the concept of finality and the orderly conduct of administrative proceedings, it gives rise to the possibility that such concerns might never come to light because, in the mind of the silent employee, the "opportune time" never arrives.

Notwithstanding the absence of a generic exemption for licensee or applicant employees, we do not foreclose the possibility that special facts might exist that would warrant a departure from the general rule that one cannot successfully stand on his rights to file an untimely petition after sitting on his rights to file a timely petition. While Petitioners allude to a pervasive fear of employer retaliation, mere assertions of fears of retaliation do not come close to the type of special facts we believe necessary. Nor do we find sufficient the fact that Mr. Saporito may have been the victim of such retaliation at some point after November 18, 1988, the date relevant here. Without more than was offered by Petitioners, we cannot find (nor will we assume) that Mr. Saporito's employer's actions after November 18 so infected or controlled Mr. Saporito's actions prior to November 18 so as to render him effectively incapable of exercising his

⁷ Mr. Saporito's employment with the Licensee was terminated December 22, 1988. Based on complaints filed pursuant to section 210(b)(1) of the Energy Reorganization Act, as amended, the District Director for the U.S. Department of Labor made a preliminary investigative finding that the termination of Mr. Saporito's employment constituted retaliation in violation of section 210(s) of the Act. The District Director went on to order Mr. Saporito's reinstatement and the payment of compensatory money damages in the amount of \$100,000. In *re Thomas J. Saporito*, DOL Nos. 89-ERA-7 and 89-ERA-17. While this unrelated case is currently pending before the Secretary of Labor on appeal, it indicates that Mr. Saporito was personally aware of the steps necessary to invoke the protection of section 210 and the scope of potential remedies that section provides.

rights under the Commission's rules of practice as protected by section 210 of the Energy Reorganization Act.

As to his second justification, Mr. Saporito appears to suggest that he originally had no safety concerns (or didn't realize that he should have had concerns) regarding the license amendment at issue here. Stated another way, during the filing period specified in the October 1988 *Federal Register* notice, he had yet to put the pieces of his safety puzzle together. This does not excuse the failure to comply with the Commission's procedural rules. While newly arising information has been recognized as "good cause," *Consumers Power Co.* (Midland Plant, Units 1 and 2), LBP-82-63, 16 NRC 571, 577 (1982), previously available information newly acquired by a petitioner has not. *Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), LBP-84-17, 19 NRC 878, 886 (1984).

Finally, Mr. Saporito's claim that he lacked actual notice of the license amendment or its attendant opportunity for a hearing is without merit. While an early decision of the Appeal Board suggested that the door was open on the question whether publication in the *Federal Register* was sufficient, standing alone, to put potential intervenors on notice, *Pennsylvania Power and Light Co.* (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-148, 6 AEC 642, 643 n.2 (1973), that door was subsequently closed in *Tennessee Valley Authority* (Browns Ferry Nuclear Plant, Units 1 and 2), ALAB-341, 4 NRC 95 (1976), wherein the Appeal Board summarily rejected a petition to intervene filed beyond the period specified in the applicable *Federal Register*.

Moreover, even assuming *arguendo* that Mr. Saporito's employment status, his lack of actual notice, and his failure to comprehend the existence of possible safety problems justifies the failure to file a timely petition to intervene, these reasons only excuse a portion of the delay that accompanied Mr. Saporito's instant petition.

His employment with the Licensee terminated in December 1988.⁸ Mr. Saporito certainly had actual notice of this proceeding and the issues before us as early as the March 1989 prehearing conference, a conference he attended. And while the record is unclear as to when Mr. Saporito's safety concerns "came together," that event must have occurred prior to April 6, 1989, when he served the first of a series of filings with this Board.⁹ Thus, as of April 1989, all the disabilities identified by Mr. Saporito as rendering him unable to file a timely

⁸ See note 7, *supra*.

⁹ Prior to the instant Petition for Leave to Intervene, Mr. Saporito filed five documents with the Board. See "Statement for Reconsideration" (April 6, 1989), "Amended Petition for a Limited Appearance Statement" (August 30, 1989), "Notice of Appearance" (August 30, 1989), "Request for Contention Reconsideration" (September 7, 1989), "Relevant Information for Consideration" (October 14, 1989).

petition to intervene had been cured. Yet, another 6 months passed before the instant petition was filed with the Board.¹⁰

As to this additional delay, Mr. Saporito offers two justifications for the lateness of the instant petition: (1) the NRC Staff advised him that his concerns would be addressed in this proceeding and (2) he relied upon Intervenors to address his copper content concerns through their Contention No. 3. Petition at 21; Clarification at 6-7. Once again, the reasons proffered to justify the additional 6 months' delay in the filing of the instant petition fall far short of the mark.

Mr. Saporito originally sought to raise his safety concerns through a request filed with the NRC Staff under 10 C.F.R. § 2.206 (1989). According to Petitioners, the Staff declined to take action on Mr. Saporito's request because his copper content concern was the subject of this proceeding. Petitioner at 21. However, Mr. Saporito makes no effort to explain how this action by the NRC Staff can be translated into "good cause" justifying a late-filed petition to intervene.¹¹ We can only read curious absence of argument to mean that Mr. Saporito cites the Staff's action not as justification for his delay in seeking intervention, but rather as the justification for his reasonable reliance upon the existing Intervenors to address his copper content concerns through their Contention No. 3. Unfortunately, a claim by a petitioner that it was lulled into inaction because it relied on another party or entity to represent its interests does not constitute "good cause." See *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 796 (1977).

As to NEAP, Mr. Saporito argues that as its founder and Executive Director, the organization stands in his shoes, with the lateness of its organizational and representative petition to intervene justified to the same extent the lateness of his individual petition is justified. Clarification at 7. He alternatively argues that NEAP had not obtained incorporated status as of the close of the time specified in the Notice of Opportunity for Hearing, and thus could not file a timely petition to intervene. Petition at 20.

Having found Mr. Saporito's individual petition to intervene inexcusably late, his own logic requires that we similarly find the lateness of NEAP's petition wholly unjustified. As to his alternative argument, newly acquired organizational existence does not constitute "good cause." *Cincinnati Gas and*

¹⁰ We note that the Commission summarily rejected as untimely a request for a hearing filed 5 months late by this same petitioner for the purpose of challenging a license amendment involving this same facility. Unpublished Order Denying Request for Hearing (May 30, 1989), *Florida Power and Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), Docket Nos. 50-250 and 50-251.

¹¹ Indeed, having been advised that his concerns would be addressed in this proceeding, one would have expected Mr. Saporito to expeditiously seek intervention to ensure that he might participate in how those concerns were resolved. Yet, as best as we can determine from the face of Petitioners' various filings, the Staff's response apparently did not galvanize Petitioners to action.

Electric Co. (William H. Zimmer Nuclear Station), LBP-80-14, 11 NRC 570 (1980).

Neither Petitioner has advanced any reasons that, either singly or in combination, constitute "good cause" for their 11-month delay in filing their petition to intervene. This being the case, we turn to the other four factors to determine whether Petitioners make a compelling argument justifying intervention notwithstanding their inexcusable delay.

II. OTHER MEANS TO PROTECT RIGHTS

The Licensee argues that intervention in this proceeding is not the only mechanism through which the Petitioners can protect their interests, noting that they can file a petition for Staff enforcement action under 10 C.F.R. § 2.206 (1989). However, we have already held that a petitioner's rights under section 2.206 are poor substitutes for their participation in an adjudicatory hearing. LBP-89-15, *supra*, 29 NRC at 506. See *Washington Public Power Supply System (WPPSS Nuclear Project No. 3)*, ALAB-747, 18 NRC 1167, 1175-76 (1983). Accordingly, this factor weighs in favor of intervention.

III. CONTRIBUTION TO DEVELOPMENT OF RECORD

Where, as here, a compelling argument for intervention must be made due to the absence of "good cause" explaining a late-filed petition to intervene, a petitioner has a special responsibility to particularize how its participation can reasonably be expected to assist in the development of a sound record. Petitioners suggest that this factor should be found to support intervention because they will attempt to retain a metals fracture expert to testify at hearing, and because of Mr. Saporito's experience and knowledge of particular aspects of the operational procedures and history of the Turkey Point facility. Petition at 22; Clarification at 9.

We do not doubt the sincerity of Petitioners' conviction that their information and assistance would help in developing a sound and complete record in this proceeding. However, in light of Petitioners' avowed interest in pursuing areas of inquiry no longer at issue before this Board, the potential significance of their contribution to the resolution of the issues currently pending before this Board is, at best marginal. Moreover, even if the issues before us were to be broadened, the proposed participation by the Petitioners does not, in our view, rise to the level of a compelling case supporting the grant of a late-filed petition to intervene.

IV. REPRESENTATION BY OTHER PARTIES

Petitioners argue that no other party can represent their particular interests since Intervenor's do not presently advance any contentions identical to those that Petitioners seek to litigate. Petition at 22; Clarification at 10-13. Because we have already concluded that Petitioners' reliance upon the Intervenor's to represent their interests does not constitute "good cause" justifying their late-filed petition, it would be contradictory to suggest nonetheless that they can rely upon the Intervenor's to represent their interests under this factor. Accordingly, we view this factor as supporting intervention.

V. POTENTIAL FOR DELAY/BROADENING OF ISSUES

As of the date of the instant petition, discovery had already taken place in this proceeding, summary disposition motions had been filed and responded to by all parties, and the hearing, if necessary, had been scheduled to begin in less than 3 months. Thus, Petitioners' 11-month-late petition comes at the eleventh hour of this proceeding. Nonetheless, Petitioners argue that a grant of their petition to intervene would neither unduly delay the proceeding nor broaden the issues currently pending before this Board. Petition at 22; Clarification at 13. We disagree.

The existing parties, the public, and this Board have a cognizable interest in the timely and orderly conduct of our proceedings. See *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 648-49 (1979). Thus, the fact that these Petitioners are prepared to go forward with their arguments immediately, and that intervention would not delay already issued license amendments does not fully answer the policy consideration underlying the Commission's concerns under this factor.

Under the Commission's rules of practice, a party has a right to discover, prior to hearing, the nature and factual bases of all other parties' litigation positions. Should we grant intervention at this late date, a significant delay could be avoided only at the expense of the discovery rights of the existing parties to the detriment of the orderly and efficient conduct of any future hearing, if necessary, in this case.

Moreover, despite claims under this factor to the contrary, we note that Petitioners strenuously argue in terms of the ability of others to represent their interests that Petitioners proffered contentions focus on different matters than those addressed in Intervenor's remaining contentions. See Clarification at 10-13. Thus, the purpose of the instant petition is, in fact, to broaden the scope of this proceeding. While this consequence of a late intervention might not be of critical importance at the earlier stages of a case, we find it to be a

strong argument against such intervention where it occurs toward the end of the proceeding, particularly where no "good cause" exists to justify the delay in seeking intervention.

VI. CONCLUSION¹²

Based on our assessment of each of the five factors governing late-filed petitions to intervene, we have concluded that only the absence of other means to protect their interests and the inability of other parties to represent their interests favor granting Petitioners' late-filed motion to intervene. In a case presenting a strikingly similar balance, the Appeal Board has held that

it is most difficult to envisage a situation in which [these two factors] might serve to justify granting intervention, after the hearing date was set, to one who (1) is inexcusably late; (2) seeks to expand materially the scope of the proceeding; and (3) offers, at best, a marginal showing with respect to its ability to make a truly significant, substantive contribution. . . . By remaining on the sidelines while the proceeding moved closer and closer to trial, [Petitioners] voluntarily assumed the precise risk which has now materialized: that its participation in the proceeding could no longer be sanctioned without destructive damage to both the rights of other parties and the integrity of the adjudicatory process itself.

South Carolina Electric and Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 NRC 881, 895 (1981).

The Petition for Leave to Intervene dated October 22, 1989, filed by the Nuclear Energy Accountability Project and Thomas J. Saporito, Jr., is denied in its entirety. Pursuant to 10 C.F.R. § 2.760 of the Commission's Rules of Practice, this Decision will constitute the final decision of the Commission thirty (30) days from the date of its issuance, unless an appeal is taken in accordance with 10

¹² Because we conclude that the instant petition was inexcusably late and its acceptance is not supported by a balancing of the other factors set out at 10 C.F.R. § 2.714(a)(1), we need not address the standing arguments made by the parties. See Licensee Response at 2-7; Staff Response at 6-9; Clarification at 2-5. Nonetheless, we note that even if Petitioners' assertions supporting their standing are given all reasonable weight possible, an affirmative finding of either individual or organizational standing would be at best a close call.

C.F.R. § 2.762 or the Commission directs otherwise. *See also* 10 C.F.R. §§ 2.785 and 2.786.

**THE ATOMIC SAFETY AND
LICENSING BOARD**

**Glenn O. Bright
ADMINISTRATIVE JUDGE**

**Jerry Harbour
ADMINISTRATIVE JUDGE**

**B. Paul Cotter, Jr., Chairman
ADMINISTRATIVE JUDGE**

**Bethesda, Maryland
January 16, 1990.**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Robert M. Lazo, Chairman
Jerry Harbour
Frederick J. Shon

In the Matter of

Docket No. 50-271-OLA-4
(ASLBP No. 89-595-03-OLA)
(Construction Period
Recapture)

VERMONT YANKEE NUCLEAR
POWER CORPORATION
(Vermont Yankee Nuclear Power
Station)

January 26, 1990

The Licensing Board grants the State of Vermont's request for a hearing for the purpose of opposing the grant of a license amendment to extend the Vermont Yankee Nuclear Power Station operating license to a full 40-year term, and admits one of nine proposed contentions for litigation.

RULES OF PRACTICE: STANDING TO INTERVENE

In determining whether a petitioner has standing, the Commission has held that contemporaneous judicial concepts of standing are controlling. Thus, there must be a showing (1) that the action being challenged could cause "injury-in-fact" to the person seeking to intervene and (2) that such injury is arguably within the "zone of interests" protected by the Atomic Energy Act or the National Environmental Policy Act.

RULES OF PRACTICE: STANDING TO INTERVENE (INJURY IN FACT)

“Abstract concerns” or a “mere academic interest” in the matter which are not accompanied by some real impact on a petitioner will not confer standing. Rather, the asserted harm must have some particular effect on a petitioner, and a petitioner must have some direct stake in the outcome of the proceeding.

RULES OF PRACTICE: STANDING TO INTERVENE

While there is little guidance in NRC case law concerning the meaning of “aspect” as the term is used in 10 C.F.R. § 2.714, a petitioner may satisfy this requirement by identifying general potential effects of the licensing action or areas of concern that are within the scope of the public health and safety matters that may be considered in the proceeding.

RULES OF PRACTICE: STANDING TO INTERVENE

Where a proposed licensing action concerns a nuclear facility within a state, which has potentially significant effects on the environment of a state and the health, welfare, and safety of its citizens, a state has standing to intervene in a proceeding.

RULES OF PRACTICE: JURISDICTION OF BOARDS

The issue of whether a proposed license amendment does or does not involve a significant hazards consideration is not litigable in any hearing that might be held on the proposed amendment because the finding is a procedural device whose only purpose is to determine the timing of the hearing (before or after issuance of the amendment).

NEPA: ENVIRONMENTAL REPORT

Since an environmental report (ER) is required only for actions that would require an environmental impact statement (EIS) under the Commission’s regulations, no ER is required in connection with a proposed construction period recapture amendment to extend an initial operating license to a full 40-year term because the Commission’s regulations at 10 C.F.R. § 51.20(b) does not specify that type of action as requiring an EIS. Only an environmental assessment (EA) is required in connection with such license amendments.

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

A contention asserting that an environmental impact statement (EIS) or environmental report (ER) is required to support a proposed licensing action would need to claim that the action presents potentially significant environmental impacts or unresolved issues of irretrievable commitment of resources, and the bases would need to identify those impacts or resources, the litigation of which is not proscribed by the Commission's regulations.

MEMORANDUM AND ORDER (Ruling on Petition for Leave to Intervene Filed by the State of Vermont)

This proceeding concerns an application pending before this Atomic Safety and Licensing Board seeking an amendment extending the expiration date in the current Facility Operating License authorizing Vermont Yankee Nuclear Power Corporation (Licensee) to operate Vermont Yankee Nuclear Power Station located in Vernon, Vermont.¹

That license was issued at a time when Commission practice was to grant operating licenses for a term of 40 years from the date of issuance of the construction permit. Under this policy, the Vermont Yankee operating license authorized only 35 years and 8 months of operation. The Commission has since determined that its prior policy is not required by law, and any reasons for its administrative adoption no longer have a purpose to serve; as a consequence, the Commission has, since 1982, routinely issued full-term operating licenses for a term of 40 years from the date of the operating license. At the same time, the Commission has equally routinely granted license amendments to the holders of operating licenses issued under the prior practice, extending the expiration of the operating license to 40 years from issuance of the operating license. These amendments are known as "construction period recapture" amendments.²

¹ Facility Operating License DPR-28 was issued on March 21, 1972, for a period of 40 years beginning with the date of the issuance of the construction permit on December 11, 1967, and ending on December 11, 2007.

² Construction period recapture amendments are something entirely different from amendments that would extend the licensed life of a plant beyond its original licensing basis, which are known as "Plant Life Extension" amendments (sometimes "PLEX").

For Vermont Yankee, the relevant dates are as follows:

Construction Permit Granted	12/11/67
Operating License Granted	03/21/72
Current O.L. Expiration Date	12/11/07
Proposed O.L. Expiration Date	03/21/12

On July 26, 1989, the NRC published in the *Federal Register* the notice of consideration of issuance of amendment to the Vermont Yankee Operating License and proposed no significant hazards consideration determination and opportunity for hearing, 54 Fed. Reg. 31,120. The notice offered persons whose interest might be affected by the proposed action and who wished to participate as parties in a hearing an opportunity to file written petitions for leave to intervene by August 25, 1989.

On August 22, 1989, the State of Vermont filed a petition for leave to intervene (Petition) pursuant to the *Federal Register* notice and the Commission's regulations in 10 C.F.R. § 2.714.

A notice of prehearing conference in Brattleboro, Vermont, was issued by this Atomic Safety and Licensing Board on September 18, 1989 (54 Fed. Reg. 39,069 (Sept. 22, 1989)). At the request of counsel for the Licensee, with no objection by NRC Staff and the State of Vermont, the date of the prehearing conference was changed to November 15, 1989 (54 Fed. Reg. 41,189 (Oct. 5, 1989)). On that date the Board heard oral argument by counsel for the Licensee, the NRC Staff, and the State of Vermont concerning Vermont's supplemental petition for leave to intervene (Supplement) filed by the State on October 30, 1989.

I.

A. The Standards for Intervention

1. The "Interest" Requirements of 10 C.F.R. § 2.714

Section 189a of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2239(a), provides that:

In any proceeding under [the] Act, for the granting, suspending, revoking, or amending of any license . . . the Commission shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

Section 2.714(a)(2) of the Commission's Rules of Practice requires that a petition to intervene in a Commission proceeding set forth with particularity:

- (1) "the interest of the petitioner in the proceeding";
- (2) "how that interest may be affected by the results of the proceeding";
and
- (3) "the specific aspect or aspects of the subject matter of the proceeding as to which petitioner wishes to intervene."

In order for intervention to be granted, the petition must be found to satisfy these standards. 10 C.F.R. § 2.714(d).

In determining whether the requisite interest prescribed by both section 189a of the Atomic Energy Act and section 2.714 of the Commission's Rules of Practice is present, the Commission has held that contemporaneous judicial concepts of standing are controlling. *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976). Thus, there must be a showing (1) that the action being challenged could cause "injury-in-fact" to the person seeking to intervene³ and (2) that such injury is arguably within the "zone of interests" protected by the Atomic Energy Act⁴ or the National Environmental Policy Act.⁵ *Id.* See also *Warth v. Seldin*, 422 U.S. 490 (1975); *Sierra Club v. Morton*, 405 U.S. 727 (1972); *Association of Data Processing Service Organizations v. Camp*, 397 U.S. 150, 153 (1970).

2. The "Aspect" Requirements of 10 C.F.R. § 2.714

In addition to demonstrating "interest," a petitioner must set forth "the specific aspect or aspects of the subject matter of the proceeding as to which petitioner wishes to intervene." 10 C.F.R. § 2.714(a)(2).⁶ There is little guidance in NRC case law concerning the meaning of "aspect" as the term is used in 10 C.F.R. § 2.714; however, a petitioner may satisfy this requirement by identifying general potential effects of the licensing action or areas of concern that are within the scope of matters that may be considered in the proceeding.⁷ See *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631, 633 (1973).

³ "Abstract concerns" or a "mere academic interest" in the matter which are not accompanied by some real impact on a petitioner will not confer standing. See *Transnuclear Inc.* (Ten Applications for Low-Enriched Uranium Exports to EURATOM Member Nations), CLI-77-24, 6 NRC 525, 531 (1977); *Pebble Springs*, CLI-76-27, *supra*, 4 NRC at 613. Rather, the asserted harm must have some particular effect on a petitioner, *Ten Applications*, CLI-77-24, *supra*, and a petitioner must have some direct stake in the outcome of the proceeding. See *Allied-General Nuclear Services* (Barnwell Fuel Receiving and Storage Station), ALAB-328, 3 NRC 420, 422 (1976).

⁴ 42 U.S.C. § 2011 *et seq.*

⁵ 42 U.S.C. § 4321 *et seq.*

⁶ Section 2.714(b) also requires the petitioner to file "a supplement to his petition to intervene which must include a list of the contentions which petitioner seeks to have litigated in the matter, and the bases for each contention set forth with reasonable specificity." This section further provides: "A petitioner who fails to file such a supplement which satisfies the requirements of this paragraph with respect to at least one contention will not be permitted to participate as a party."

⁷ The subject matter of the proceeding for purposes of identification of "aspects" relates to the question of public health and safety of the proposed action (issuance of the amendment) and not the procedural determination made by the Commission staff concerning whether or not the proposed action involves a "significant hazards consideration." See 51 Fed. Reg. 7747 (Mar. 6, 1986).

B. The State of Vermont's Petition

1. Interest and Injury

Regarding its interest, the State represents that the proposed extension has a potentially significant effect on the environment of the State of Vermont and on the health, welfare, and safety of its people. Petition at 1-2. Further, the State represents that because the plant is located in Vermont any order permitting the requested amendment would have both a direct and an indirect effect on Vermont and its citizenry. *Id.* at 2.

We agree with the Staff and the Licensee that the State has adequately set forth its interest and has shown how its interest might be affected by the outcome of the proceeding. Accordingly, the State has made the showing necessary to a finding that it has standing to intervene.

2. Specific Aspects of the Subject Matter of the Proceeding

The State has identified a number of aspects on which it wishes to intervene, some of which are arguably within the scope of the notice and, thus, of any proceeding that might be conducted pursuant to that notice. For example, increased risk from aging of equipment is arguably within the scope of the notice. *See id.* at 2. Accordingly, the State has identified at least one aspect on which it wishes to participate.

C. No Significant Hazard Consideration Determination

In its petition, the State addresses the Staff's proposed determination of no significant hazards consideration at some length. *Id.* at 2-8. The State's discussion of this proposed determination will be considered by the Staff in reaching its final determination regarding no significant hazards consideration. However, a no significant hazards consideration determination is a procedural determination stemming from the "Sholly" amendments to § 189a of the Atomic Energy Act, 42 U.S.C. § 2239(a). After the NRC Staff or the Commission has made such a determination, it may make effective a proposed license amendment prior to any hearing on the request. The determination itself is not subject to challenge in a license amendment proceeding:

No petition or other request for review of or hearing on the staff's significant hazards consideration determination will be entertained by the Commission. The staff's determination is final, subject only to the Commission's discretion, on its own initiative, to review the determination.

10 C.F.R. § 50.58(b)(6).

The issue of whether the proposed amendment does or does not involve a significant hazards consideration is not litigable in any hearing that might be held on the proposed amendment because, as the Commission has observed, the finding is a procedural device whose only purpose is to determine the timing of the hearing (before or after issuance of the amendment). *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-86-12, 24 NRC 1, 6 n.3 (1986), *rev'd in part on other grounds, San Luis Obispo Mothers for Peace v. NRC*, 799 F.2d 1268 (9th Cir. 1986).

For the reasons discussed above, the Licensing Board finds that the State of Vermont has established its standing to intervene and has identified at least one aspect of the proposed amendment request in which it is interested.

II.

On October 30, 1989, the State of Vermont filed a supplement to its petition to intervene, in which it proposed nine contentions for litigation in any hearing that might be held on Vermont Yankee Nuclear Power Corporation's application to extend its operating license to a full 40 years, thus recapturing the time required to construct the Vermont Yankee Nuclear Power Station.

A. Standards Applicable to Proposed Contentions

In order for petitioners' contentions to be admitted as matters in controversy, they must satisfy the Commission's requirement that the basis for the contention be set forth with reasonable specificity. 10 C.F.R. § 2.714(b). Also, proposed contentions must fall within the scope of the issues set forth in the Notice of Hearing initiating the proceeding.⁸ The purposes of the basis requirements of 10 C.F.R. § 2.714 are (1) to assure that the contention in question raises a matter appropriate for adjudication in a particular proceeding,⁹ (2) to establish a

⁸ *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170 (1976). See also *Commonwealth Edison Co.* (Carroll County Site), ALAB-601, 12 NRC 18, 24 (1980); *Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289-90 n.6 (1979).

⁹ A contention must be rejected where:

- (a) it constitutes an attack on applicable statutory requirements;
- (b) it challenges the basic structure of the Commission's regulatory process or is an attack on the regulations;
- (c) it is nothing more than a generalization regarding the intervenor's views of what applicable policies ought to be;
- (d) it seeks to raise an issue which is not proper for adjudication in the proceeding or does not apply to the facility in question; or
- (e) it seeks to raise an issue which is not concrete or litigable.

See *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974).

sufficient foundation for the contention to warrant further inquiry into the subject matter addressed by the assertion, and (3) to put the other parties sufficiently on notice “so that they will know at least generally what they will have to defend against or oppose.” See *Peach Bottom*, ALAB-216, *supra*, 8 AEC at 20. From the standpoint of basis, it is unnecessary for the petition to detail the evidence that will be offered in support of each contention. *Mississippi Power & Light Co.* (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973). Furthermore, in examining the contentions and their bases, a licensing board should not reach the merits of the contentions. *Houston Lighting and Power Co.* (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 548 (1980); *Duke Power Co.* (Amendment to Materials License SNM-1773 — Transportation of Spent Fuel from Oconee Nuclear Station for Storage at McGuire Nuclear Station), ALAB-528, 9 NRC 146, 151 (1979); *Peach Bottom*, *supra*, 8 AEC at 20; *Grand Gulf*, *supra*, 6 AEC at 426.

As the Appeal Board instructed in *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), ALAB-182, 7 AEC 210, 216-17 (1974), in asserting the acceptability of a contention as a basis for granting intervention:

[t]he intervention board’s task is to determine, from a scrutiny of what appears within the four corners of the contention as stated, whether (1) the requisite specificity exists; (2) there has been an adequate delineation of the basis for the contention; and (3) the issue sought to be raised is cognizable in an individual licensing proceeding. [Footnotes omitted.]

If a contention meets these criteria, the contention provides a foundation for admission “irrespective of whether resort to extrinsic evidence might establish the contention to be insubstantial” (*id.*, 7 AEC at 217).¹⁰ The question of the contention’s substance is for later resolution — either by way of 10 C.F.R. § 2.749 summary disposition prior to the evidentiary hearing “or in the initial decision following the conclusion of such a hearing.” *Farley*, *supra*, 7 AEC at 217. Thus, it is incumbent upon petitioners to set forth contentions supported by bases that are sufficiently detailed and specific to demonstrate that the issues they purport to raise are admissible.

B. The State’s Proposed Contentions

The State of Vermont has proposed nine contentions for adjudication in relation to Vermont Yankee’s application to extend its license to recapture the time required to construct the facility.

¹⁰ However, the proposed contention should refer to and address relevant documentation available in the public domain. See *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), LBP-81-24, 14 NRC 175, 181-85 (1981).

1. *Contention I*

In its Contention I, Vermont alleges that:

it would be illegal to compel the State of Vermont to accept the generation of any low-level radioactive waste from the operation of the Vermont Yankee facility beyond the date originally authorized in its operating license permit.

Supplement at 2.

As basis for Contention I, Vermont cites section 5(d)(2)(c) of the Low-Level Radioactive Waste Policy Amendments Act of 1985 (LLRWPA) concerning the obligations that statute places on the State of Vermont regarding low-level radioactive waste generated in Vermont. Vermont cites the State's lack of success in negotiating a compact agreement and its unwillingness to accept its obligations under the statute. None of the State's bases provides any support for litigation of Contention I which the State concedes is "admittedly a legal question." Tr. 17. The obligations placed on Vermont by the LLRWPA are independent of the NRC's licensing responsibilities under the Atomic Energy Act. In Contention I, Vermont has not stated an admissible contention.

2. *Contention II*

Contention II reads:

Granting an amendment to extend the operating life of Vermont Yankee such that it would either be authorized to operate for more than 40 years from the date of issuance of its construction permit or for a period longer than requested in its application to operate violates the provisions of 10 CFR § 50.51 which require that operation of any plant for longer than the term originally requested in the application or longer than 40 years can only be accomplished by filing a request for renewal of an operating license. Such a renewal application must at a minimum meet all of the requirements applicable to filing an initial application to operate a facility and the filing by Vermont Yankee does not meet those requirements.

Supplement at 5.

In Contention II, Vermont states that granting Vermont's application would violate 10 C.F.R. § 50.51. Vermont misreads § 50.51 and confuses license extension by amendment, which the licensee is seeking, and license renewal, an option that the Licensee might pursue upon the expiration of its operating license. Vermont reads § 50.51 as requiring "that operation of any plant for longer than the term originally requested in the application or longer than 40 years can only be accomplished by filing a request for renewal of an operating license." The Commission's regulations in 10 C.F.R. § 50.51 state that an operating license may be issued for a fixed period of time not to exceed forty (40) years from issuance. The amendment request is consistent with this

regulation. The Commission's regulations in 10 C.F.R. § 50.90 set forth the procedures that must be followed when amending an operating license. Nothing in the regulations precludes Vermont Yankee's request to recapture the period of construction by amendment. In fact, the Commission has already granted some two dozen construction permit recapture amendments to licensees where the originally requested operating licenses were issued for a period less than 40 years.

Vermont acknowledges that Contention II is also a legal argument (Tr. 25). Accordingly, Vermont's Contention II does not raise a litigable issue. It cannot be admitted.

3. *Contention III*

Contention III reads:

The proposal to extend the operating life of the Vermont Yankee plant for an additional four years and three months is a "major Federal action" within the meaning of 42 U.S.C. § 4332(2)(C) [sic] for which an environmental report is required from the applicant and an environmental impact statement is required from the NRC and for which a thorough assessment of alternatives must be conducted. Applicants have not met the requirements of 10 CFR § 51.45 in that there is not an adequate discussion of the environmental impacts associated with the proposed operation or alternatives to the proposed action.

Supplement at 11.

Proffered Bases

Basis a reiterates and references the claim in Vermont Contention II, which we have rejected, that the original construction permit and operating license proceedings did not include any consideration of the environmental impacts of, or alternatives to, operation of Vermont Yankee after the year 2007. *Id.* The claim also fails as a basis for the assertion that the proposed extended operating period is a major federal action.

The nine numbered paragraphs of Basis b (i.e., b.1 through b.9) present Vermont's assertions of missing analyses that would be required of the NRC to support an Environmental Impact Statement (EIS), and required of the Licensee in its environmental report, citing 10 C.F.R. § 51.45. Supplement at 12-17.

Proffered bases b.1, b.2, b.3, and b.6 (and part of b.7) pertain to high-level and low-level radioactive waste disposal. Paragraph b.1 asserts uncertainty about the date at which spent fuel (high-level waste) will be shipped off site; b.2 and b.3 reassert the uncertainty of availability of low-level waste storage (as in Vermont's Contention I), and that analyses of environmental consequences with respect to wastes generated during the proposed extended licensing period must

be conducted; and b.6 asserts that discussion of the irretrievable commitment of land in Vermont to store those low-level wastes is required. Public resistance and refusal of the State Legislature to adopt waste siting legislation are cited as warranting a discussion of environmental significance. *Id.* at 12-16. Shipment of spent fuel off site (b.1.) is outside the bounds of the amendment at bar, and proscribed by 10 C.F.R. § 51.53(a). The low-level waste storage bases are rejected for the same reasons that we rejected Contention I, above.

In Basis b.4 Vermont discusses future need for power and possible economic alternatives, and asserts in b.5 the omission of discussion of “numerous viable options” to the action—analyses of alternatives that Vermont asserts are defective in Licensee’s environmental discussion accompanying its application. *Id.* at 13-15. Vermont discusses the asserted options, representing alternative power sources and conservation, in referenced Contention IV, presumably under Bases b.1–b.7 to that contention. *Id.* at 18-22. Bases b.4 and b.5 comprise issues proscribed by the Commission’s regulations in OL proceedings. 10 C.F.R. §§ 51.53(a), 51.95(a), 51.106(c).

Basis b.7 asserts that the categories of the “substantial environmental impacts that will occur from this proposal” include:

1. Potential failure to find any acceptable waste-disposal site in Vermont;
2. Potential impacts from accidents because of failure to address properly:

aging, inadequate maintenance and inadequate compliance with ASME codes and quality assurance criteria, and absence of an Individualized Probabilistic Risk Assessment for Vermont Yankee;

and

3. Additional environmental impact caused by the increased period of operation of the plant.

Supplement at 16-17. The waste disposal site basis fails for the same reason as Contention I, which it restates. The other bases similarly fail for the same reasons as the other contentions that they track. An exception is the allegation in b.7.2, above, referring to inadequate maintenance. It asserts environmental concerns that track Contention VII (which we admit). Our explanation of why it fails as a basis for Contention III is found below.

In Basis b.8 Vermont cites the now-expired Temporary Operating License provisions,¹¹ section 191 of the Atomic Energy Act of 1954, and a Statement of Consideration published with 10 C.F.R. § 50.55a as evidence equating even

¹¹ Presumably this refers to 10 C.F.R. § 50.57(d)(1)–(9), but the portions relevant to Intervenor’s length-of-operation argument are not specified. Authority under this part of § 50.57 to issue temporary operating licenses under section 192 of the Act expired on December 31, 1983.

short periods of operation to a "major federal action." *Id.* at 17. We find this basis to be overly vague and unspecific in that it fails to show any connection between the kinds of actions cited and the proposed operating period extension at bar. Clearly a short period of operation could be major, but this basis gives no reason why it is in this case.

Basis b.9 baldly restates Vermont's legal conclusion from its Contention II, that the Licensee must file a "complete environmental report" since it is seeking a renewal of its operating license. *Id.* That notion we have already rejected.

The Licensee objects to Contention III on the general grounds that it lacks requisite specificity and basis, and further, that the proffered bases raise questions that are inadmissible as a matter of law. Licensee at 15-23; Tr. 64.

The Licensee asserts that even if an amendment to recapture the construction period were a "major federal action," that alone would not require preparation of an EIS or ER. According to NEPA¹² the "formula" is that a major federal action with potential for significant adverse environmental impact equals EIS. Thus, in order to be successful, a contention must, *inter alia*, identify what the significant adverse environmental impacts would be, and they must be things that the Commission has not excluded from consideration at a point later than the construction permit stage. The only things upon which Vermont relies are topics that are not admissible in this proceeding, such as "need for power, alternate sites, alternate ways of doing power, and certain matters related to waste storage." Licensee, Tr. 63-64.

To that, Vermont replies that its Basis b.7 to Contention III goes through and discusses what it thinks are the significant impacts.

"[S]ubstantial," or "significant," is in the eye of the beholder. What [the Licensee] will call negligible, Vermont will call significant. That's an issue to be resolved, not one to be taken *ex cathedra*.

Tr. 128-29.

The Staff agrees that Vermont has provided no basis for contending that recapture of the construction period for Vermont Yankee should be considered a major federal action. Staff's argument is essentially legal.

The Staff states that the types of actions that require the preparation of an environmental impact statement are listed in 10 C.F.R. § 51.20(b). Amendment of the operating license to recapture the construction period and to allow for operation for the full 40 years, as contemplated by § 50.51, is not specified as one of these actions. An environmental assessment (EA) is required pursuant to 10 C.F.R. § 51.21 for those actions not requiring an EIS, or not categorically excluded by 10 C.F.R. § 51.22(c). Thus, the Staff argues that an environmental

¹² Presumably § 102(2)(C).

assessment is all that is required by the Commission's regulations for the action proposed here. Since an ER is required only for actions where an EIS is required by the Commission's regulations, there is no necessity for Licensee to submit an ER. Staff at 5-6.

The essential thrust of Contention III is that time extension of the operating period is a "major federal action" requiring an EIS and an ER. However, recitation of the kinds of environmental analyses and discussions that might be conducted *if* an ER were required, is not a basis for the claim that OL time extension is a major federal action requiring a Supplemental EIS/FES and ER. Further, there is no allegation of any resource involved that was not involved in the original operating license considerations (Staff, Tr. 114).

A contention that an EIS and ER are required would need to claim that the action presents potentially significant environmental impacts or unresolved issues of irretrievable commitment of resources, and the bases would need to identify impacts or resources, the litigation of which is not proscribed by the Commission's regulations. Only Basis b.7 attempts to do that. Basis b.7.2 pertains to a case where improper maintenance assertedly causes a high risk of accident. We are admitting Contention VII to cover just that point. If Vermont prevails on Contention VII, either proper changes will be made or no extension will issue. In either event, b.7.2 (maintenance) will be vitiated.

We agree with the Staff's legal argument that an ER is not required, because a construction period recapture amendment is not cognizably one of the types of actions listed in 10 C.F.R. § 51.20(b) requiring preparation of an environmental impact statement; instead, an environmental assessment (EA) is required pursuant to § 51.21. Vermont's reliance on 10 C.F.R. § 51.45 is incorrect, since § 51.45 specifically cites § 51.53 (application for license or for *renewal*) as the requirement for preparation of an ER, or a supplement to the ER.¹³ Contention III hinges on the same argument as Contention II (i.e., that OL construction period recapture is a license renewal application).

We observe that it is the clear intent of the regulations in 10 C.F.R. §§ 51.20, 51.21, and 51.22 to divide all actions into three categories: those always requiring an Environmental Impact Statement (EIS), those never requiring an EIS, and those requiring an Environmental Assessment (EA). In dealing with the final category, the regulations specify (10 C.F.R. § 51.31) that "[u]pon completion of an environmental assessment, the appropriate NRC staff director will determine whether to prepare an environmental impact statement." No such determination has yet been made.

The Staff points out that in all construction period recapture cases before this one, the Staff director has determined that no EIS was needed, and that

¹³ The other sections referring to types of licensing actions in § 51.45 that require an EIS clearly do not apply here; e.g., § 51.50 (construction permits), § 51.54 (manufacturing license).

the State has not shown any reason to believe that this case is different from the others (Tr. 93). Indeed, in response to that position, the only difference the State could educe was that the State had entered this case (Tr. 93-95). That is not a truly substantive difference.

We also observe that, when a hearing is held (as it is being held here) the final finding regarding significant impact is within the purview of the presiding Board (10 C.F.R. § 50.34(b)). Absent the EA that the Staff is preparing, we obviously cannot make that determination.

Thus we are led to reject Contention III, since no firm basis has been shown for believing that this case is substantively different from other cases where no EIS was required. The rejection is, of course, without prejudice to the State's attempting, once the EA is in hand, to establish a solid reason for believing an EIS is necessary, and attempting to introduce the contention late-filed, in accordance with 10 C.F.R. § 2.714(a)(1).

4. Contention IV

Contention IV reads:

Even if the proposal to extend the operating life of the Vermont Yankee plant for an additional four years and three months is not a major federal action, it nonetheless involves "unresolved conflicts concerning alternative uses of available resources" for which NRC must "study, develop and describe alternatives" within the meaning of 42 U.S.C. § 4332(2)(E) and for which the applicant must submit such a study as part of its environmental report pursuant to 10 CFR § 51.45.

Supplement at 17-18.

Proffered Bases

Referencing Contention I, Vermont's Basis a asserts that conflict exists concerning the use of land resources in Vermont to dispose of low-level radioactive wastes, land resources elsewhere to dispose of high-level wastes, and release of radiation from the plant during the proposed operating period of the Vermont Yankee plant after 2007. *Id.* at 18.

The seven numbered paragraphs of Basis b (i.e., b.1 through b.7) present Vermont's documentary support for its assertion that "[a] natural gas power plant, cogeneration and other qualifying facilities, an advanced nuclear facility, and conservation are feasible and realistic alternatives to the proposed action." *Id.* at 18-22.

Basis c states that "Vermont will provide testimony concerning a Comprehensive Energy Plan, which includes alternative means of energy production

and conservation," which will be available by January 1, 1991. "The plan shall be directed toward goals of protecting the environment, increasing energy efficiencies, and reducing overall energy costs." *Id.* at 22-23.

Because the NRC Staff has yet to issue an Environmental Assessment (or a supplement to the Vermont Yankee EIS), Licensee argues that Contention III is inadmissible as premature.¹⁴ Licensee also argues that this contention is inadmissible because it is too vague and insufficiently specific, and because the only alternatives in the statement of bases are matters that are precluded from admission by Commission regulations. Licensee at 24-26; Tr. 62.

The Licensee couches its objections in terms of "impact-avoiding" alternative assessments and "resource-conserving" alternative assessments. It argues that impact-avoiding alternative assessments are required only when an EIS must be prepared pursuant to NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C), and since such is not the case here, impact-avoiding alternative assessments are not litigable. Licensee at 24.

Licensee states that Vermont seeks to invoke the Commission's obligation to consider "resource-conserving" alternative assessments. Here, if the action involves the dedication of scarce natural resources, concerning the best use of which there is unresolved conflict, the agency must consider whether any alternative obviates the use-of-resources issue. This is required whether or not the proposed action involves significant environmental impacts. NEPA § 102(2)(E), 42 U.S.C. § 4332(2)(E).¹⁵ Licensee at 25. We note that Contention IV does, indeed, assert that only "resource-conserving" considerations are required.

Licensee objects to proffered Basis a of Contention IV (dedication of land resources for waste disposal) as inadmissible for the same reasons that proposed Contention I and the waste issues of Contention III are inadmissible. *Id.* at 25.

Licensee asserts that the only alternative assessments that Vermont refers to are proscribed by the Commission's regulations, in that they claim that power from Vermont Yankee is not needed and that, if needed, it can be produced in other ways. *Id.* at 26.

The Staff's position is that the only available resources involved in the proposed action are the Vermont Yankee plant and the land on which it is situated. Alternatives to using the facility for the purpose for which it was designed include terminating operation of the plant and using the plant and its grounds for another purpose. Vermont has raised no issue involving unresolved

¹⁴ It is clear that both the Licensee and the Staff argue that an EIS is not required here, and that the Staff is preparing an Environmental Assessment. Licensee at 19-23; Staff at 6, 8. *Also see* Roisman, Tr. 129.

¹⁵ This distinction may help to distinguish Vermont's Contentions III and IV. Licensee's argument seems to be that Contention III, with its assertion of the requirement of an EIS, might involve both "impact-avoiding" and "resource-conserving" alternative assessments. Contention IV, not premised on a "major federal action" requiring an EIS, could only involve "resource-conserving" alternative assessments.

conflicts concerning the alternative uses of the Vermont Yankee facility (the available resources). Staff at 8-9.

In the Staff's view, commitment of land to dispose of high-level or low-level radioactive wastes is not a resource commitment related to the license amendment at bar. The Staff objects to admission of Contention IV because it lacks the requisite basis. *Id.* at 8-10; Tr. 84-86, 114-18.

Because we agree with the first argument of the Licensee, above, that Contention IV is premature, we find that it is not admissible. Since the Staff has yet to produce its Environmental Assessment, prospective arguments as to its findings, if any, on dedication of scarce resources can only be speculative. Therefore, we reject proposed Contention IV as premature, without prejudice to its refiling in accordance with the provisions of 10 C.F.R. § 2.714(a)(1) upon availability of the Environmental Assessment.

5. Contention V

Contention V reads:

The application must be denied because the applicant (1) has not evaluated the difference between the Vermont Yankee licensing basis and the current licensing basis for plants originally licensed to operate through 2012, and (2) has not demonstrated the effect on the environment and public health and safety of each difference. One example of this is that the American Society of Mechanical Engineers (ASME) Codes and quality assurance requirements for reactor coolant pressure boundary (RCPB) pressure vessels, piping, and pumps and valves and the codes to which it has been constructed are inadequate for extended operation beyond 2007.

Supplement at 23.

Vermont's Supplement then goes on to list twenty-one separate subsections, designated "a" through "u," evidently intended to serve as bases for the contention. We treat each *seriatim* below:

Basis a simply alleges that "numerous" requirements were imposed by regulatory authority (then AEC) during the plant's construction period. Vermont then assumes that these requirements were intended to ensure safety beyond 2007, a notion we find unsupported and unconvincing, and one challenged by both Licensee and Staff (Licensee at 30; Staff at 11-12).

Basis b merely expresses the hope that Vermont will be able to develop these differences during discovery, a thought that may be comforting to Vermont but that scarcely forms a basis for the contention.

Basis c identifies specific codes that became effective in 1972 and would apply to plants licensed at that time to operate through 2012. Staff argues that the State of Vermont has "mischaracterized" the nature of code revisions—that in fact revisions are not always increases in stringency (Staff at 12) — and that

may be, but the contention is that no comparison has been made, and hence the question of which code is the more stringent goes not to admissibility but to the merits. Licensee argues that there is no reason to believe that codes are in any way definitive of useful life, and offers figures on current numbers of fatigue cycles and nil ductility shift (Licensee at 30). But that, too, goes to the merits. Licensee also asserts that a comparison of codes has already been carried out, and attaches (apparently as evidence) a list comparing such codes (Licensee, Attachment). Again this argues the merits, and we also note that the comparison was to codes proposed in a 1969 document. Whether these codes are the same as those of 1972 is again the sort of question a hearing might well answer.

Basis d cites an unspecified Commission document called “Notes of Consideration” (probably the Statement of Consideration that accompanied a proposed regulatory change) for the idea that the Commission attached some urgency to the code changes the new regulation would incorporate. Basis d then assumes that urgency was grounded upon a vaticination on the part of the Commission that discerned trouble by 2012 but not by 2007. We believe that assumption to be unjustified.

Basis e simply notes that the Licensee has applied to change the license’s expiration date to March 21, 2012.

Basis f notes the NRC’s policy (prior to 1982) of issuing operating licenses for 40 years from the date of the construction permit.

Basis g notes that that policy would have meant that an expiration date of March 21, 2012, would have corresponded to a construction permit date of March 21, 1972, at the time the current operating license issued.

Basis h argues that had NRC (actually AEC) known when issuing the operating license that the plant would seek to operate beyond 2007, it “might well have not been willing” to provide the full 40 years from the start of operation. This ostensible basis is so speculative we cannot give it weight.

Basis i contains three numbered subsections which recite the code requirements for reactor coolant pressure boundary components as those requirements are specified in regulatory revisions published in 36 Fed. Reg. 11,423. These requirements allegedly would have been in effect for any reactor granted a construction permit when Vermont Yankee received an operating license. We assume these are the requirements that Vermont believes the plant should — but does not — meet.

Basis j cites the Staff’s “Vermont Yankee Safety Evaluation Report” (VYSER) identifying the ASME Boiler and Pressure Vessel Code Edition to which the reactor vessel conforms and the USAS Power Piping Code to which the plant’s piping conforms. It alleges that the VYSER is silent on codes involving pumps and valves.

Basis k cites the Commission's "Notes of Consideration" accompanying the regulatory change as an indication that the Commission then considered the differences between the codes of Basis i and those of Basis j, above, to be differences with safety significance.

Basis l cites several *Federal Register* notices as indications that the Commission did not want then-current codes to continue "into the indefinite future." The basis does not, however, quote language that would make it clear that the concern was with end-of-license behavior rather than with then-present qualification.

Basis m identifies and addresses the codes for pumps and valves that became effective in 1971, and points out an added requirement — namely for Certified Materials Test Reports — that originated with those codes. It argues that the lack of such reports increases the likelihood of component failures, *inter alia*, failures dues to aging.

Basis n alleges that the piping code applicable to plants whose licenses will expire in 2012 is B31.7, that the code used for Vermont Yankee was B31.1.0, and that the former contains fatigue design requirements while the latter does not. The basis notes that fatigue design is directly related to aging.

Basis o cites the "BWR Plant Life Extension Study at the Monticello Plant: Phase 1" (EPRI NP-5181M) for the fact that construction codes prior to 1971 did not prescribe explicit fatigue evaluations.

Basis p alleges that the B31.7 Piping Code established "more reliable" nondestructive examination (NDE) requirements than those of B31.1.0. The basis alleges that such requirements are directly related to potential failure through aging and are therefore relevant to operation after the expiration of the current license.

Basis q cites Article 8 of section III of the ASME Code, which sets a requirement for quality assurance of Class I pumps and valves. The basis asserts that this requirement applies to plants licensed to run until 2012 but was not applied to Vermont Yankee. The basis also cites 35 Fed. Reg. 10,498 for the fact that the "18 Criteria of 10 C.F.R. 50 Appendix B" came into force after some of Vermont Yankee's components had been manufactured, and it concludes that Vermont Yankee may not meet the quality assurance (Q/A) criteria applicable to plants intended to operate until 2012.

Basis r cites General Electric's 1975 "Nuclear Reactor Study" (Reed Report) for the fact that the system in effect when Vermont Yankee was constructed did not "motivate vendors to produce . . . components to the level of reliability and durability justified"

Basis s traces the history of Vermont Yankee's Feedwater Check Valve V28B, which it alleges shows a safety problem involving flaws and possible cracking. The basis cites Staff and Licensee letters. It alleges that the flaws are a direct result of inadequate codes.

Basis t essentially repeats the statement in the contention to the effect that Licensee has not, in its request for extended operation, compared the codes to which its plant was built to those for plants originally licensed to run beyond 2012.

Basis u alleges that the plant has fallen below a minimally acceptable margin for safety because of inadequate and outdated licensing bases.

We must now address the Licensee's other major objection (Licensee at 27), an objection concurred in by the Staff (Staff at 12), viz., that the contention is a challenge to the Commission's regulations and hence is inadmissible under 10 C.F.R. § 2.758.

The Staff's citation in this regard, (*Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant, Units 1 and 2), ALAB-837, 23 NRC 525, 544 (1986)) is scarcely on point. In *Shearon Harris*, the Appeal Board applied 10 C.F.R. § 2.758 to exclude an environmental contention that directly challenges Table S-4, a feature of 10 C.F.R. § 51.52. Here we are faced with no such direct challenge. Here we confront an alleged safety shortcoming that simply suggests that those requirements of 10 C.F.R. § 50.55a (incorrectly cited by Staff as 10 C.F.R. 50.55(a)) that apply to plants whose licenses expire in 2012 should be applied to Vermont Yankee if its license is similarly conditioned.

The regulations themselves are silent on *whether* the new requirements placed upon later plants were grounded (as Vermont believes) on an anticipated expiration date. They may or may not have been. But the fact that the regulations prescribe one set of codes for plants of Vermont Yankee's vintage and another for later ones cannot be taken as clear indication that the later codes would apply if lifetime is extended.

Licensee, too, cites 10 C.F.R. § 50.55a (Licensee at 27). But while it is true that plants licensed when Vermont Yankee was licensed were required only to adhere to the earlier codes, it is unclear whether that waiver was based upon anticipated aging or not.

Finally, we address the notion, suggested in the Responses of both Staff and Licensee, and argued at the prehearing conference (Tr. 42 ff., 72 ff.) that to require more than is specifically set forth in the regulations is, *ipso facto*, to challenge the regulations.

The section of the regulations governing license amendments, 10 C.F.R. § 50.92, states that "[i]n determining whether an amendment to a license . . . shall issue the Commission will be guided by the considerations which govern the issuance of initial licenses. . . ." The issuance of an operating license is governed by 10 C.F.R. § 50.57. That section reads in pertinent part:

[A]n operating license may be issued . . . upon a finding that:

- (2) The facility will operate in conformity with the application . . . , the provisions of the Act, and the rules and regulations of the Commission; and

- (3) There is reasonable assurance . . . that the activities authorized by the operating license can be conducted without endangering the health and safety of the public . . . [Emphasis added].

The plain language of the regulation suggests that the paragraph numbered (3) is in addition to the one numbered (2). That is, that there is a requirement that we find "reasonable assurance" of safety *in addition to* finding conformity with the regulations. Neither Staff nor Licensee has pointed to case law that would require us to find otherwise. When asked to address the matter at the prehearing conference, the Licensee's attorney replied that "if the topic in question is one that is addressed by a substantive regulation" nothing further need be found, but if the topic is "something else" one might indeed need further assurance (Tr. 72-73). In our view the allegations at bar are "something else." The question whether failure to conform to codes that came into force in the construction period will affect safety at end of life is not directly addressed in the regulations.

We have carefully considered all of the above arguments. We cannot ignore the plain language of 10 C.F.R. § 50.55a(c)(4), which states:

For a nuclear power plant whose construction permit was issued prior to May 14, 1984 the applicable Code Edition and Addenda for a component of the reactor coolant pressure boundary continue to be that Code Edition and Addenda that were required by Commission regulations for such component at the time of issuance of the construction permit.

Clearly, Vermont Yankee is such a plant, and the Code Edition and Addenda to which it was built conform to those required by the regulation. We must find that the contention is inadmissible. However, as we have pointed out above, it is not clear to us just what the regulatory change was intended to accomplish. It is apparently Vermont's position that the provision requiring new codes was directed at assuring durability at the end of the plant's useful life. Section 2.758 bars any challenge to a Commission regulation except under very stringent procedures, viz., a party may petition, with affidavit, for a waiver of a particular provision on the ground that the rule would not accomplish its purpose in the particular case, the affidavit setting forth exactly why that purpose would not be accomplished; any other party may reply; the Board must find that, in its opinion, a *prima facie* case has been made for the idea that the regulation would not accomplish its purpose; and the Board must certify the question directly to the Commission for disposition.

In the present case, no such petition has been filed, no explanatory affidavit is at hand, and the matter has not been briefed. We therefore have no course open to us but to deny admission of the contention.

6. *Contention VI*

Contention VI reads:

The application should be denied because the applicant has failed to demonstrate that there is reasonable assurance that operation of the plant beyond the date for which operation was originally approved will provide adequate protection to the public health and safety due to the excessive aging of safety significant components and the absence of any effective and comprehensive program to detect the presence of such excessive aging.

Supplement at 33.

There follow twenty-three bases labelled a through w. We treat them below.

Basis a simply refers the reader to Contention II for a discussion showing that the original Licensing Board did not consider operation beyond 2007.

Basis b attempts to introduce obsolescence as a legitimate factor in aging, alleging that obsolescence begins at the time of manufacture, not at the time the operating license was issued. We cannot agree. Truly obsolete equipment is simply replaced.

Basis c puts forth the opinion of one of the Licensee's management consultants as support for the notion that obsolescence is aging, although the portion of the consultant's report that is cited says nothing about obsolescence. The citation, in fact, says that there is "no serious degradation in the safety status of Vermont Yankee," but that it may be prudent at this time to consider a program to detect such degradation. While we can certainly not argue with prudence, neither can we see how this basis supports either the contention or the notion that obsolescence is an aging mechanism.

Basis d names several aging mechanisms for transformers alleging that some of them begin before installation.

Basis e names aging mechanisms for motor stator insulation.

Basis f names aging mechanisms for switchgear, citing an EPRI report for some of them.

Basis g names aging mechanisms for cable.

Basis h names aging mechanisms for relays.

Basis i gives aging mechanisms for batteries.

Basis j names a basic failure mechanism for cathodic protection systems.

Basis k comments on aging mechanisms for structural materials and relates these mechanisms to aging in components.

Basis l asserts that EPRI has reported on other mechanisms of aging.

Basis m cites still another EPRI report for corrosion as an aging mechanism and notes the BWR components that it especially affects.

Basis n again cites obsolescence as an aging mechanism.

Basis o cites aging mechanisms for concrete.

Basis p names aging mechanisms for protective coatings.

Basis q describes drywell corrosion observed at Monticello.

Basis r ties construction period events to some forms of aging or shortening of component life.

Basis s cites Licensee's environmental qualification report for the notion that aging begins during construction, and we here note that virtually every basis dealing with aging of a component or with aging mechanisms asserts that the aging process begins with the manufacture of the component or the construction of the system affected.

Basis t asserts that the environmental qualification program at Vermont Yankee fails to meet the requirements of 10 C.F.R. § 50.49 because it evaluates a 40-year life by assuming that the life begins with initial operation.

Basis u reiterates that the aging process begins before issuance of the operating license.

Basis v asserts that improper aging control results in failure of the system to control a design-basis accident. The basis does not, however, explain the way in which aging yields that result. We can give such conclusory statements no weight.

Basis w is again simply conclusory; it asserts that aging has already made the plant's margin of safety fall below an acceptable minimum, but gives us no clue as to how or why.

Licensee argues that this contention is inadmissible because it lacks both "regulatory basis" (Licensee at 31) and "basis" (*id.* at 32). The first objection repeats, in essence, Licensee's objection to Contention V, viz., that the contention does not specify a regulatory requirement that the plant fails to meet. As we noted above, we believe that there is more to a finding of no undue hazard than simply a finding that no regulation is violated. Even Licensee notes that one of the bases (Basis t) alleges that a specific regulation, 10 C.F.R. § 50.49, is unmet, but Licensee dismisses that allegation, saying that it "might be admissible, but not in this operating license amendment proceeding" (Licensee at 33 n.37). Licensee avers that no basis has been shown for this alleged deficiency. The State attempts to show a nexus between environmental qualification (the subject of 10 C.F.R. § 50.49) and the extension of plant operation from 2007 to 2012 by stating that "[a]pplicant's program evaluates a 40-year equipment life," but Licensee asserts that the environmental qualification program does not make such an evaluation. Rather, the program simply seeks to replace each component it has evaluated at a time before it will wear out, selecting that time in a conservative fashion (*id.*). We agree. The State has not shown that there is any real connection between environmental qualification and life extension.

Licensee's second objection, that regarding lack of "basis" alone, hinges upon the notion that the State's list is simply a list of things that wear out, and that such a list ignores the fact that the phenomena operate uniformly over the plant's lifetime, thus a program that protects against wearout until 2007 will

work until 2012 also (*id.* at 32). This, too, is correct in our view. That is, while many of the statements in the sections that follow the contention make mention of the fact that degradation starts before operation, nothing has been presented that suggests that a proper program of surveillance and maintenance would not keep the components operable, despite the degradation that might have occurred before operation. Nor is there any reason to believe that environmental qualification is keyed to an exact 40-year span.

Staff, too, points out that a plant is not simply constructed and then left to deteriorate (Staff at 13). Staff also states that the program to prevent deterioration is adequate (*id.* at 14). We deal with that assertion below.

We see no reason to believe that it is the 40-year interval that fixes the ability of components to resist adverse environments. Still less do we see why an adequate maintenance and replacement program could not guard against deterioration, even if that deterioration had occurred in the period prior to operation.

We will not admit Contention VI for litigation.

7. Contention VII

The contention states:

The application should be denied because the applicant has failed to demonstrate that there is reasonable assurance that operation of the plant beyond the date for which operation was originally approved will provide adequate protection to the public health and safety due to the absence of a sufficiently effective and comprehensive program to maintain and/or determine and replace all components found to have aged to a point where they no longer meet the safety standards applicable to this plant and upon which this plant was originally granted its operating license.

Supplement at 42.

There follow supporting bases lettered a through s.

Basis a simply asserts that the Licensee relies upon its maintenance and surveillance program to assure that failure due to aging will not cause safety problems. That is clearly true; indeed, it is exactly what both Licensee and Staff argued in their opposition to Contentions V and VI, viz., that constant attention, not predicted durability, was the thing that assured safe operation.

Basis b notes and lists seven "weaknesses" that were identified by the Staff in an identified inspection report for Vermont Yankee.

Basis c cites the same inspection report for the fact that the Licensee's maintenance program depends "more on the stability of maintenance staff, their skill in their professions, and their knowledge of plant system characteristics . . . than on formally and clearly established management controls." The basis then argues that qualified replacement personnel will become harder to find

(citing a trade publication) and that a program that relies on worker experience rather than management controls is not satisfactory for extended assurance.

Basis d cites the Staff's inspection report for the fact that the Licensee's maintenance activities do not receive "timely" review.

Basis e cites the Staff's report for the fact that lack of effective policy and procedures for updating technical manuals is a current weakness in the Licensee's program.

Basis f cites the Staff's report for the fact that PRA concepts have not been incorporated in the Licensee's maintenance training program. (This appears to be a mere repeat of the "weakness" cited as number five of seven in Basis b.)

Basis g cites a portion of the Staff's report that, although quoted out of context and with ellipses, seems to suggest that proper notice will not be given to management of adverse data trends. It also cites the Licensee's Assessment, submitted with the application for extension, as claiming credit for just such data trending.

Basis h(1)¹⁶ asserts that Licensee does not have in place a program for Reliability-Centered Maintenance, despite the fact that a cited EPRI report recommends such a program as bearing upon life extension.

Basis h(2) cites an NRC proposed rule for the fact that maintenance has an effect upon safety.

Basis i asserts that Licensee has not incorporated lessons learned about maintenance from a draft NRC report NUREG-1333.

Basis j cites an early report by one of Licensee's consultants for the fact that some of the "weaknesses" noted by NRC Staff in its report had been earlier called to Vermont Yankee's attention without result.

Basis k cites a consultant's report issued after NRC Staff's report for the fact that the "program informality" seen as a weakness by NRC was left uncorrected.

Basis l cites an EPRI report for the fact that improper maintenance can adversely affect the life of plant systems, components, and structures.

Basis m presents a list of Licensee Event Reports (LERs) said to show that Vermont Yankee has a "history of maintenance induced problems." The basis also mentions specific failures of the uninterruptible power supply and the toxic gas monitors, and it alleges that INPO reports reflect adversely on Vermont Yankee without naming the specific reports.

Basis n names certain LERs concerning containment leakage monitoring as further indication of "the inability of applicant's maintenance and surveillance program to provide the reliance claimed."

Basis o alleges that the Licensee cannot show records of "adequate maintenance, surveillance and storage methods during the construction period." The

¹⁶There are two bases designated h. We refer to them as h(1) and h(2).

basis also cites previous Contention VI. As we noted in dealing with that contention, failures during construction do not seem to us necessarily to preclude proper care during extended life.

Basis p asserts that the “significance” of the maintenance and surveillance program is “heightened” by extension of the license. We see no connection.

Basis q simply repeats the bare allegation that the Licensee’s programs for maintenance and surveillance are “weak.”

Basis r asserts that one consequence of the failure to properly maintain equipment is the failure to meet ECCS criteria during a design-basis accident. That may well be, but the State has shown no specific connection.

Basis s asserts that the plant’s “margin of safety” has fallen below the minimum acceptable because of the lack of a sufficiently comprehensive and effective maintenance and surveillance program. The assertion is too nebulous to serve as a basis for any litigation.

The Licensee’s position is that Contention VII lacks regulatory basis (i.e., that the contention assumes that something more than compliance with the regulations is needed for authority to operate) and that no specific violation of the regulations has been alleged (Licensee at 34-35). As we explained above, we believe that something more than the regulations (or at least something more explicit) may indeed be required. Indeed, the need for something more has spawned the entire hierarchy of Regulatory Guides, Staff Technical Positions, NUREG Reports, Information Bulletins, and Generic Letters. In fact, the Staff itself admits that such matters represent a realm subject to our scrutiny (Tr. 103). And while we agree that one cannot require something the regulations forbid (and in fact we excluded Contention V on just that ground) we do not agree that an intervenor need necessarily cite a specific regulatory requirement violated in every contention.

The Staff also views Contention VII as both an attack on the regulations and a baseless allegation. It states that the inspection found the programs adequate, and it quotes from other portions of the Inspection Report cited in the contention to show that the overall report found the program adequate (Staff at 14-15). Staff also says that the term “weakness” used in the report is a term of art, and that the term does not indicate any serious problem (Tr. 105). We do not think the contention attacks the regulations. And, as to the exact meaning of the Inspection Report and the terms of art therein, we believe that the report and its significance are matters that we are empowered (even mandated) to examine when such matters are raised by an intervenor.

Clearly, Contention VII calls to question the very mechanisms — surveillance and maintenance — that the Licensee and the Staff assured us made the “durability” and “time limit” views of Contentions V and VI untenable. We find particularly troubling the Staff’s report that the programs hinge heavily upon the persons carrying them out. If true, that could call to question the effectiveness

of the programs in just the period of interest, for personnel attrition over 17 or more years can be substantial.

We will admit this contention for litigation, recognizing particularly the matters set forth in the bases designated b, c, d, e, g., h(1), h(2), j, k, m, and n.

8. *Contention VIII*

Contention VIII states:

Applicant has not demonstrated the capability of the Mark I containment used in this plant to withstand and mitigate design basis and severe accidents during the proposed period of extended operation. The most significant factor which has not been adequately analyzed by the applicant is the impact of aging during construction and during the proposed extended operation on the Mark I containment.

Supplement at 51.

There follow bases designated a through p.

Basis a purports to disagree with the Licensee's Assessment of the safety of the extension, citing two Generic Letters, three NUREG reports, and the notes of a meeting of the OECD Nuclear Energy Agency, for the fact that the Staff and experts in general have identified possible failure modes for the Mark I containment in a severe accident and the Staff has identified plant modifications to ameliorate some of these modes. The basis further asserts that all the failure modes are related to aging. In that regard it mentions that liner thinning will hasten liner melt-through (although, since the report mentioning that failure mode said it would occur "within minutes" it is difficult to see how thinning could make much difference). The basis also alleges that aging mechanisms will defeat systems relied upon for prevention and mitigation. This idea, of course, is grounded upon the fundamental assumption, rejected above, that these systems have a precisely determined finite lifetime.

Basis b lists aging degradation mechanisms for structural materials that may have been used in the Mark I, citing EPRI reports for the fact that such aging degradation mechanisms exist.

Basis c cites another EPRI report for the existence of additional aging mechanisms.

Basis d cites further aging mechanisms mentioned by EPRI and asserts that they begin with manufacture or construction.

Basis e cites concrete aging mechanisms that began "at construction."

Basis f cites an EPRI report for the fact that aging of protective coatings begins at construction.

Basis g cites an earlier-mentioned EPRI report for the fact that the Monticello drywell shell (a Mark I) has corroded.

Basis h cites EPRI for the fact that events during construction “may have an impact” on component life.

Basis i reiterates that the aging process began before the issuance of an operating license and cites Contention VI (rejected above) for further argument to that effect.

Basis j cites EPRI for the fact that aging degradation merits repair “where appropriate.”

Basis k asserts that containment isolation valves have aging failure mechanisms and cites an EPRI report identifying those mechanisms.

Basis l cites Contention VII (admitted above) for the fact that the Licensee’s maintenance program has “weaknesses” and asserts that some of those weaknesses impact upon containment without identifying any weaknesses that do so.

Basis m cites LERs for the fact that Vermont Yankee’s containment failed leak tests at various times over the years, and it asserts (without explanation) that these failures were due to poor maintenance and aging of valves.

Basis n alleges that there have been repeated failures of the “drywell paint system” citing a letter from the Licensee as evidence of these failures. Presumably the basis refers to chipping and cracking of the drywell paint.

Basis o states that failure of coatings can result in fouling of ECCS pump suction such that ECCS criteria will not be met. It further attempts to relate ECCS failure to operation or misoperation of a hardened vent system.

Basis p again asserts that the plant’s “margin of safety” has fallen below the “minimum acceptable.”

Licensee would reject this entire contention on the ground that it is without “regulatory basis” (i.e., that it alleges no violation of a specific section) (Licensee at 35). We have dealt with that objection above. Licensee also objects on the ground that the contention deals in the main with accidents beyond the design basis, and it sees this “lament” and that of Contention IX as a challenge to the regulations. In a footnote the Licensee recognizes *Limerick Ecology Action v. NRC*, 869 F.2d 719 (3d Cir. 1989), as permitting the admission of an environmental contention that deals with greater-than-design-basis accidents, but Licensee believes such permission is distinguishable here because the contention concerns a safety matter rather than an environmental one. And, of course, Licensee notes that this is not the Third Circuit (Licensee at 36 n.39). We see no need to reach this question since we reject the contention on other grounds, *infra*.

Staff, too, faults the contention for requiring more than the regulations and for failing to cite a specific regulation that has been violated (Staff at 17). Staff also alleges that the Generic Letters cited by Vermont have been satisfied (*id.* at

18), although, of course, that is a matter that goes to the merits of the contention rather than to its admissibility.

We reject Contention VIII. We accept the argument that we accepted in denying admission to Contention VI, viz., that a plant is not dependent upon precisely determined component lives for safety. Rather, it is the surveillance and maintenance program that ensures operability of safety-related equipment in the long haul. The idea that fundamentally underlies much of Contention VIII is that things have deteriorated and that a few extra years of such deterioration was not contemplated when the operating license was issued, ergo, the license cannot be extended. As we have explained above, we believe that notion is fundamentally incorrect. Deterioration occurs; but if it is properly noted and corrected the plant can continue to function safely.

We have, however, admitted a contention (Contention VII) to the effect that the program for surveillance and maintenance is weak. To the extent that Bases l, n, and o of Contention VIII may bear upon Contention VII, they may be cited and used.

9. Contention IX

Contention IX reads:

The Applicant cannot obtain an extension of its existing operating license until it satisfactorily completes a probabilistic risk assessment ("PRA") for this plant and determines and identifies in that PRA all modifications necessary for risk reduction of the plant, commits to implementation of these modifications before the beginning of the extended period and incorporates the cost of such modifications into economic evaluations.

Supplement at 59.

There follow bases labelled a through h. We treat them in turn.

Basis a simply notes that Generic Letter 88-20 requires that Licensee prepare an Individual Plant Examination (IPE) for Vermont Yankee. The State assumes that the IPE will be of the nature of a PRA, and, indeed, the Licensee represents that the IPE will be a Level 1 PRA (Tr. 120).

Basis b simply states that aging affects the considerations in an IPE, and asserts that the failure probabilities "must be greater" for plants built to older codes, although no reason is given for the latter assertion.

Basis c refers the reader to Contentions V, VI, and VII for a discussion of the impact of aging and inadequate design.

Basis d cites the same reports cited in Contention VIII, Basis a, calling the matters therein "unknowns and uncertainties which are affected by aging." It is unclear what relevance to PRA is intended.

Basis e alleges that the industry and the Licensee have been unable to assess the aging of plant equipment. It cites LERs (two of which were cited also in support of Contention VII) as examples of "unplanned failures" and lists the numbers of recent (this year's) LERs. It asserts that these failures occurred "[d]espite deterministic statements that systems, structures, and components are designed for certain qualified lives." The basis makes no effort to show relevance to PRA.

Basis f alleges that the Licensee's past history shows design errors, and that an IPE must account for such errors. It cites two LERs to show that design errors have existed.

Basis g asserts that all the matters of the earlier bases must be treated probabilistically in the forthcoming IPE (apparently an attempt to provide some nexus between those matters and PRA), and it lists four factors that it would require be included in PRA sequences: (1) age-failure factor, (2) older-plant (outdated fabrication code and licensing basis) factor, (3) age-corroded liner factor, and (4) design error factor. We are unsure exactly what such factors would be; presumably they would comprise some increase in projected failure rates for certain components. Vermont gives no hint as to how such factors could be obtained or exactly how they could be used to decide the risk of a few years' extension of the operating license.

Basis h simply makes the bald assertion that the license extension decision cannot be made until a PRA that includes the "above factors" is prepared.

Licensee objects to the contention's admission on three grounds. First the Licensee sees it as inadmissible because there is no Commission requirement for a PRA as a licensing document. Licensee cites two Licensing Board decisions (*Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), LBP-82-76, 16 NRC 1029, 1033 (1982); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-83-57, 18 NRC 445, 573-74 (1983)) and one Director's Decision (*Boston Edison Co.* (Pilgrim Nuclear Generating Station), DD-88-7, 27 NRC 601, 607 (1988)) for the fact that neither the performance nor the submittal of a PRA is a condition precedent to licensing for a nuclear power plant. We agree that is correct, but we are not sure that the fact that a PRA is not required before licensing precludes our examining such a document and taking account of it in considering a license extension.

Second, the Licensee pleads that the lack, in the contention and its ancillary text, of any hint of the nature of the "modifications necessary for risk reduction" that are mentioned in the contention leaves the Licensee without proper notice of what it must defend against. We agree that there is considerable uncertainty in the contention, but that uncertainty arises because the PRA has not yet identified what modifications may be necessary.

Third, the Licensee again objects to the contention as one that requires more than the regulations, seeing such a requirement as a challenge of the sort precluded by 10 C.F.R. § 2.758. As before, we reject that line of reasoning.

Staff objects to admission of the contention on what is essentially the Licensee's third ground: a PRA is not required and an assertion that something more than the regulations require is a challenge to those regulations.

We note that the Staff itself has by Generic Letter 89-20 required an IPE (though no requirement for an IPE exists in the regulations). We believe that the State has shown nothing in the matter of the IPE (or the PRA that it involves) that suggests that an extension of the operating license from 2007 to 2012 would be hazardous. Indeed, nothing of the sort could really be shown, for the PRA is not completed as yet. Nevertheless, we are aware that one of the most cogent and useful contributions of a PRA will be to seek out dominant sequences of failure and examine particular vulnerabilities for this specific plant. It is, of course, not inconceivable that some details of those sequences and vulnerabilities might bear some relation to failures occurring during the period in question.

We have decided to reject the contention as being unrelated to the question at bar. This is, of course, without prejudice to the State's possible application at a later date for admission of one or more contentions based upon the PRA, contentions that would then be considered under the standards for late-filed contentions set forth in 10 C.F.R. § 2.714(a)(1) if this litigation is still in progress. If we have finished the instant litigation, the State could, of course, seek other remedies under 10 C.F.R. § 2.206.

IV. ORDER

For all the foregoing reasons and upon consideration of the entire record in this matter, it is, this 26th day of January 1990, ORDERED:

1. That the State of Vermont's request for a hearing in this Operating License Amendment proceeding is *granted*;
2. That a Notice of Hearing will be published in the *Federal Register* (Attachment A);
3. That Contention VII in the State of Vermont's Supplement to Petition to Intervene filed on October 30, 1989, is admitted as an issue in controversy for litigation; and

4. That the State of Vermont's Contentions I, II, III, IV, V, VI, VIII, and IX are rejected.

**THE ATOMIC SAFETY AND
LICENSING BOARD**

**Robert M. Lazo, Chairman
ADMINISTRATIVE JUDGE**

**Jerry Harbour
ADMINISTRATIVE JUDGE**

**Frederick J. Shon
ADMINISTRATIVE JUDGE**

**Dated at Bethesda, Maryland,
this 26th day of January 1990.**

**[The attachment has been omitted from this publication but can be found in the
NRC Public Document Room, Gelman Bldg., 2120 L St., NW., Washington,
DC.]**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Marshall E. Miller, Chairman
Oscar H. Parls
Frederick J. Shon

In the Matter of

Docket Nos. 030-05980

030-05981

030-05982

030-08335

030-08444

(ASLBP Nos. 89-590-01-OM
90-598-01-OM-2)

SAFETY LIGHT CORPORATION, *et al.*
(Bloomsburg Site Decontamination)

January 29, 1990

The Licensing Board denies respondent's motion to dismiss for lack of jurisdiction, concluding that the failure of the original licensee to fully inform the Commission of corporate reorganizations and sales of controlling blocks of stock rendered all successor corporations liable for the costs of decontamination of sites previously under the control of the original licensee, and subject to the enforcement authority of the Commission and the jurisdiction of the Board.

ATOMIC ENERGY ACT: OWNERSHIP

By section 184 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2234, Congress established a strong public policy prohibiting the "transfer of control of any license" by every conceivable means, without the prior written and informed consent of the Commission. This broad and sweeping statutory

language was clearly intended to proscribe the alienation in any manner or form of any license or right to utilize or produce special nuclear material, without the specified Commission action.

ATOMIC ENERGY ACT: DUTIES OF LICENSEES

Any person or corporation that chooses to engage in licensed nuclear byproduct material activities, is not completely free to conduct itself in a business-as-usual manner. There are substantial constraints upon unfettered business actions and forms resulting from the high degree of regulatory oversights, direct or consequential. Not surprisingly, such limitations apply to issues involving the direct or indirect transfer of licenses, significant changes in corporate and other licensees, and matters related to the liability and responsibility for the decontamination of sites and facilities used in licensed activities.

ATOMIC ENERGY ACT: REPORTING REQUIREMENTS

The Atomic Energy Act of 1954, as amended, requires a full, fair disclosure to be made by licensees of actions involving the transfer or control of licensees, so that the NRC can make an informed judgment whether such actions are in accordance with the Act. Clearly, financial and other considerations related to decontamination of the site of licensed nuclear byproduct activities could and should be reviewed by the NRC in fulfilling its statutory responsibilities.

ATOMIC ENERGY ACT: OWNERSHIP

Where NRC is denied the opportunity to review the effect of significant changes in a licensee's corporate organization due to the licensee's failure to comply with statutory disclosure requirements, the transfers of control of a licensee by corporate restructuring were invalid as to the NRC which is obligated by statute to disregard them.

NUCLEAR REGULATORY COMMISSION: JURISDICTION

The prohibitions against unapproved transfers of control of licenses enacted by Congress cannot be ignored or avoided by licensees or by the NRC itself. Attempted transfers of ownership and control by a licensee were ineffective to eliminate NRC jurisdiction over the succeeding entities because the transfers were in violation of statutory requirements.

ATOMIC ENERGY ACT: OWNERSHIP

Massive transfers such as 100% of stock ownership and fundamental changes in corporate structure, ownership, and control are the same as attempted transfers or assignments of licenses.

ATOMIC ENERGY ACT: OWNERSHIP

The strong public policy enunciated by Congress in barring unapproved transfers of control of licensees is controlling, and hence there can be no avoidance of such mandatory reporting requirements by NRC acquiescence, delays, laches or equitable estoppel, notification of the SEC or the licensee's own shareholders, alleged proper business motivations, spinoffs, or the provisions of 10 C.F.R. Part 50.

ORDER

**(Denying Motions to Dismiss NRC Orders Issued March 16, 1989,
and August 21, 1989, for Lack of Jurisdiction)**

This proceeding involves two enforcement action orders issued by the Nuclear Regulatory Commission (NRC) Staff with regard to the Bloomsburg, Pennsylvania site decontamination. The named parties were Safety Light Corporation, United States Radium Corporation; the following five parties (known collectively as the "USR Companies") USR Industries, Inc., USR Lighting, Inc., USR Chemicals, Inc., USR Metals, Inc., USR Natural Resources, Inc., and Lime Ridge Industries, Inc., and Metreal, Inc.¹

On March 16, 1989, the NRC Staff issued an Order Modifying Licenses (Effective Immediately) and Demand for Information (March Order).² That order required all named parties to prepare plans for site characterization and decontamination of the site in Bloomsburg, Pennsylvania, and to specify the amount of funds that each party would provide for implementation of the plan. The March Order alleged that Safety Light Corporation (SLC) and the other corporations have misled the NRC regarding the nature and effect of certain reorganizations that were carried out in 1980. It further alleged that neither prior notice was given nor NRC written consent obtained regarding the 1980 restructuring and subsequent sale, which amounted to a transfer of licenses in violation of section 184 of the Atomic Energy Act and 10 C.F.R. § 30.34(b). It

¹ Originally Pinnacle Petroleum, Inc., was a named party, but it was dismissed from this action by the NRC by an Order dated April 24, 1989.

² 54 Fed. Reg. 12,035 (Mar. 23, 1989).

was further alleged that "these corporate transactions were a deliberate attempt to isolate the liability and responsibility for cleanup of the Bloomsburg facility . . . from other, presumably more profitable, aspects of U.S. Radium's, and later Industries', business ventures."³

On April 17, 1989, USR Companies filed an answer and request for hearing, raising questions among other things about the jurisdiction of NRC over the USR Companies and the appropriateness of an immediately effective order. SLC also requested a hearing on this order. The Commission's Secretary, pursuant to 10 C.F.R. § 2.772(j), referred both requests to the Atomic Safety and Licensing Board Panel, and this Board⁴ was established on June 15, 1989, to hear the appeals. The Board was reconstituted on January 18, 1990.

On June 2, 1989, a Joint Characterization Plan prepared by IT Corporation was submitted in partial response to the March Order, but it was rejected by the NRC on June 16, 1989, as not satisfying its requirements. However, a revised plan dated August 9, 1989, was approved by the NRC on September 11, subject to the correction of certain identified deficiencies.⁵

On August 21, 1989, the NRC Staff issued an Order Modifying Licenses (Effective Immediately) to the USR Companies to ensure that they would make available funds to comply with the March Order (54 Fed. Reg. 36,078 (Aug. 21, 1989)). The August Order alleged that the

Corporations' failure to provide assurance of adequate funding to complete implementation of a satisfactory site characterization plan, the uncertainty regarding the nature and extent of contamination at the Bloomsburg facility, and the statements made by the Corporations' principal officers as to the limited financial resources available for site characterization let alone decontamination, demonstrate that additional actions are immediately needed to protect public health and safety by assuring that sufficient resources are made available by the Corporations to initiate and complete the site characterization and take necessary immediate remedial action for any significant health and safety problems.

Answers and requests for hearing were again filed to the August Order, which were referred to the same Licensing Board. In addition, the USR Companies filed a Petition for Review of the August Order in the United States Court of Appeals for the District of Columbia Circuit on October 19, 1989.

On October 19, 1989, the Board held a prehearing conference to be apprised of the issues and to establish appropriate procedures. On October 27, 1989, the Board held a second prehearing conference by telephone, in which it temporarily stayed the immediate effectiveness of the August Order pending the receipt of briefs on the stay issue and the Board's ruling on the motion for stay.⁶

³ *Id.* at 12,036.

⁴ On January 23, 1990, Judge Marshall E. Miller was appointed to replace Judge Hoyt as Chairman of the Board.

⁵ August Plan to Characterize Radioactivity at Bloomsburg Site, dated September 11, 1989.

⁶ October 27, 1989 Prehearing Conference Transcript at 101.

On November 22, 1989, the Board issued an Order that converted its temporary stay of the immediate effectiveness of the NRC Staff orders, to a stay *pendente lite*. The November Order also directed USR Industries to file a statement within 30 days describing its plan to fund the costs of: (1) site characterization; and (2) decontamination of the Bloomsburg site if the Board should conclude that USR Industries and/or its subsidiaries are legally liable for such costs. The statement was to include the sources for the funds and whether derived from proceeds of insurance policies, current cash accounts not otherwise legally committed, and noncash assets.

By an Order dated December 1, 1989, the Board clarified that the November 22, 1989 Order imposed a stay *pendente lite* of both the March 16 and August 21, 1989 Orders, and that the stay included Safety Light Corporation as well as USR Industries. A hearing schedule agreed to by all parties at a prehearing conference on November 29, 1989, was also adopted by the Board in this order.

USR Industries submitted the funding information requested in the November 22 Board Order by a letter to the Board dated December 21, 1989. That letter stated that there was no funding plan because USR Industries maintains that NRC lacks jurisdiction over it; there are uncertainties regarding available insurance proceeds; and the corporation has patently inadequate financial resources in the absence of such insurance. If it were held liable for site characterization and cleanup it would "have no choice other than to seek protection under the bankruptcy statutes."

I. TRANSFER OF LICENSES

A. Applicable Statutes and Regulations

The controlling statute governing the transfer or disposition of licenses in any manner is section 184 of the Atomic Energy Act of 1954, as amended.⁷ In that section, Congress expressly provided that:

Sec. 184. Inalienability of Licenses.— No license granted hereunder and no right to utilize or produce special nuclear material granted hereby shall be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of any license to any person, unless the Commission shall, after securing full information, find that the transfer is in accordance with the provisions of [the Atomic Energy] Act, and shall give its consent in writing.

By section 184, Congress established a strong public policy prohibiting the "transfer of control of any license" by every conceivable means, without the

⁷ 42 U.S.C. § 2234 (1982).

prior written and informed consent of the Nuclear Regulatory Commission.⁸ This broad and sweeping statutory language was clearly intended to proscribe the alienation in any manner or form of any license or right to utilize or produce special nuclear material, without the specified Commission action. The integrity of the regulatory process in this regard can only be maintained by the most scrupulous adherence to such statutory requirements, in reality as well as in form.

The Commission has implemented these statutory requirements by the adoption of appropriate regulations. 10 C.F.R. § 30.34(b) states:

No license issued or granted pursuant to the regulations in this Part and Parts 31 through 35, and 39 nor any right under a license shall be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of any license to any person, unless the Commission shall, after securing full information, find that the transfer is in accordance with the provisions of the Act and shall give its consent in writing.

The above-quoted section 30.34(b) also implements section 183 of the Atomic Energy Act of 1954, which provides:

Sec. 183. Terms of Licenses. — Each license shall be in such form and contain such terms and conditions as the Commission may, by rule or regulation, prescribe to effectuate the provisions of [the Atomic Energy Act], including the following provisions:

. . . .
c. Neither the license nor any right under the license shall be assigned or otherwise transferred in violation of the provisions of [the Atomic Energy Act].⁹

In this case every license and amendment that has been issued by the Commission contained an express provision that the "license shall be deemed to contain the conditions specified in section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect. . . ."¹⁰ Such license conditions would also be constructively deemed to be part of all byproduct materials licenses under the terms of section 30.34(d). Accordingly, all persons and corporations that have dealt here with the byproduct materials licenses and licensees are charged with knowledge of the requirements of these statutes and regulations.

In interpreting and applying statutory restraints on license transfers or other dispositions, we must consider the context in which nuclear energy is closely regulated. "Byproduct material" which is the subject of the instant licenses

⁸ *Id.*

⁹ 42 U.S.C. § 2233(c) (1982).

¹⁰ *E.g.*, License No. 37-00030-02, Amendment No. 40 (January 25, 1979).

means any radioactive material yielded in, or made radioactive by exposure to the radiation incident to, the process of producing or utilizing special nuclear material.¹¹ The health and safety of the public and others exposed to radioactive materials is obviously of paramount importance. The whole history of the commercial utilization of nuclear energy and materials is fraught with deep public concern over the possible effects of any exposure to radioactivity. The entire subject has produced intensely emotional reactions by large segments of the population. Consequently, Congress has been very sensitive to the necessity of rigorous controls and close regulation of the entire nuclear industry. As a result, the regulatory framework it has established and charged the Nuclear Regulatory Commission with implementing is probably the tightest and most pervasive of any commercial or industrial activity in this country.

Against this background it is apparent that any person or corporation that chooses to engage in licensed nuclear byproduct material activities, is not completely free to conduct itself in a business-as-usual manner. There are substantial constraints upon unfettered business actions and forms resulting from the high degree of regulatory oversights, direct or consequential. Not surprisingly, such limitations apply to issues involving the direct or indirect transfer of licenses, significant changes in corporate and other licensees, and matters related to the liability and responsibility for the decontamination of sites and facilities used in licensed activities.

B. Licenses Issued to the United States Radium Corporation

On March 16, 1956, the Atomic Energy Commission (AEC) issued License No. 37-30-1 to the United States Radium Corporation (U.S. Radium) "[f]or preparation of sealed sources for experimental use within the laboratory and for resale to AEC licensed users."¹² On June 20, 1956, the AEC issued License No. 37-30-2 (now License No. 37-00030-02) (the 02 license) to U.S. Radium for "RESEARCH AND DEVELOPMENT as defined in Section 11(q) Atomic Energy Act of 1954. PROCESSING FOR REDISTRIBUTION to AEC licensed users."¹³ The 02 license replaced License No. 37-30-1. On May 16, 1962, the AEC issued License No. GL 122 (now License No. 37-00030-10G) to U.S. Radium, which provided that

[p]ursuant to Section 30.24(j), 10 C.F.R. 30, the licensee is authorized to manufacture the sealed self-luminous sources listed in Condition 10 below, and when such sources have been manufactured, tested, and labelled in accordance with the provisions of this license and

¹¹ 10 C.F.R. §30.4(d).

¹² License No. 37-30-1, March 16, 1956.

¹³ License No. 37-00030-02, June 20, 1956.

Sections 30.24(j) and 30.25 of 10 C.F.R. 30, to distribute the sources to persons generally licensed pursuant to Section 30.21(d) of 10 C.F.R. 30.¹⁴

On April 16, 1965, the AEC issued License No. 37-30-7 (now License No. 37-00030-07E) to U.S. Radium for "[a]pplication of tritiated luminous paint to timepiece hands and dials for sale or distribution to persons exempt from the requirements for a license pursuant to Section 30.10(a), Title 10, Code of Federal Regulations, Part 30, 'Licensing of Byproduct Material.'"¹⁵ On January 13, 1966, the AEC issued License No. GL 237 (now License No. 37-00030-09G) to U.S. Radium.¹⁶ The 10G, 09G, and 07E licenses authorize use, possession, and distribution of hydrogen-3 (tritium).

On April 25, 1969, U.S. Radium applied to renew License No. 37-00030-02.¹⁷ The license application requested a new license, or in the alternative, amendment of the 02 license to authorize new activities. The application also independently requested the AEC to renew the 02 license. U.S. Radium's proposed renewal of the 02 license would authorize possession of byproduct material at the Bloomsburg site for "[d]econtamination, clean-up and disposal of areas previously used for research, development and processing under this license."¹⁸ In response to this application, on August 5, 1969, the AEC issued License No. 37-00030-08 to U.S. Radium for "[p]rocessing for distribution to authorized recipients. Research and development as defined in 10 C.F.R. 30.4(q)."¹⁹ The AEC also renewed the 02 license for the purposes requested in the application.²⁰

On January 25, 1979, the NRC issued Amendment No. 40 to the 02 license. License conditions 13 and 14 of this license required U.S. Radium to submit a status report of decontamination work for each period beginning on July 1, as specified in applications dated June 7, 1977, and October 23, 1978. Each such report was due on the succeeding July 1. The incorporation of the October 23, 1978, letter into the license required U.S. Radium to take the actions listed on the schedule enclosed with that letter.

¹⁴ License No. 37-00030-10G, May 16, 1962.

¹⁵ License No. 37-00030-07E, April 16, 1965.

¹⁶ License No. 37-00030-09G, January 13, 1966. License condition 9 specified that "[p]ursuant to Section 32.51, Title 10, Code of Federal Regulations, Part 32, the licensee is authorized to manufacture luminous devices specified in Condition No. 10 of this license subject to the conditions and limitations contained herein and to distribute such devices to persons generally licensed pursuant to Section 31.5, Title 10, Code of Federal Regulations, Part 31, or equivalent provisions of the regulations of any Agreement State."

¹⁷ Application for Byproduct Material License, April 25, 1969.

¹⁸ *Id.*

¹⁹ License No. 37-00030-08, August 5, 1969. The AEC issued this license rather than amending the 02 license at U.S. Radium's request.

²⁰ License No. 37-00030-02, Amendment No. 36.

C. Corporate Restructuring by Licensee United States Radium Corporation

On May 14, 1980, United States Radium Corporation, a publicly held corporation and NRC licensee, created USR Industries, Inc. (USR Industries).²¹ Concurrently, USR Industries created Industries Merger Co., Inc. As the "Agreement and Plan of Merger" dated May 16, 1980 (Merger Plan)²² describes, as of May 16, 1980, these three corporations held interests in each other as follows: U.S. Radium,²³ an NRC licensee since 1956, which then owned, possessed, and operated the Bloomsburg facility, owned all the outstanding stock of USR Industries, Inc.²⁴ In turn, USR Industries owned all the outstanding stock of Industries Merger Co., Inc.²⁵ All these corporations were Delaware corporations. When U.S. Radium created USR Industries and Industries Merger Company on May 14, 1980, the Board of Directors of U.S. Radium was identical to that of USR Industries, and the same individual was Chairman of the Board of all three companies.²⁶ Moreover, neither USR Industries nor Industries Merger Company owned any assets other than those of U.S. Radium. Both USR Industries and Industries Merger Company were only nominally capitalized.²⁷

As described in the Merger Plan, on execution of the plan, each share of U.S. Radium (publicly held) would convert to a share of USR Industries. The share of Industries Merger Company, Inc. (held by USR Industries) would convert to shares of the "Surviving Corporation," i.e., the entity whose assets comprised all of U.S. Radium's assets prior to May 14, 1980. Finally, all shares of USR Industries outstanding prior to execution of the Merger Plan (held by U.S. Radium) would be cancelled.²⁸ In summary, U.S. Radium created its wholly owned subsidiary USR Industries and USR Industries' wholly owned subsidiary Industries Merger Company so that, on execution of the Merger Plan, U.S. Radium's ownership of USR Industries would cease and U.S. Radium would become a wholly owned subsidiary of USR Industries. In a sense the parent corporation would become the child, and vice versa. The Board of Directors of the former U.S. Radium would constitute the Board of Directors of USR Industries after execution of the Merger Plan.²⁹

²¹ American Stock Exchange, Inc., Listing Application No. 12145, dated August 21, 1980, at 1.

²² Agreement and Plan of Merger, dated May 16, 1980, Exhibit A to United States Radium Corporation Proxy Statement dated July 11, 1980.

²³ United States Radium Corporation (U.S. Radium) is denoted in the Merger Plan as "USR."

²⁴ *Id.* In the Merger Plan, USR Industries is denoted as "Industries."

²⁵ *Id.* The Merger Plan denotes Industries Merger Co., Inc., as "Merger Company."

²⁶ ASE Listing Application, *supra*, at 4; Proxy Statement, *supra*, at 4-6; Merger Plan, *supra*, at A-7.

²⁷ Proxy Statement, *supra*, at 16.

²⁸ *Id.*, Article II, at A-3.

²⁹ Letter dated July 11, 1980, from Ralph T. McElvenny, Jr., Chairman of the Board and Chief Executive Officer of U.S. Radium to the stockholders of U.S. Radium (accompanying proxy statement).

As further described in the Proxy Statement dated July 11, 1980, after the merger U.S. Radium, as a wholly owned subsidiary of USR Industries, would transfer all of its lines of business except for the safety lighting business to four other wholly owned subsidiaries of USR Industries. The Proxy Statement names these four companies as USR Chemical Products, Inc., USR Lighting Products, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc.³⁰

On August 27, 1980, U.S. Radium, USR Industries, and Industries Merger Company executed the Merger Plan.³¹ On execution of the Merger Plan, the members of the boards of directors of U.S. Radium and USR Industries did not change. The only assets that USR Industries acquired through execution of the merger were assets of U.S. Radium before the merger.³²

Subsequently, USR Industries reorganized the businesses of its now wholly owned subsidiary, U.S. Radium, into five wholly owned subsidiaries, with the safety lighting operations at Bloomsburg segregated from all other assets in a company named U.S. Radium. On November 24, 1980, USR Industries changed U.S. Radium's name to Safety Light Corporation. On January 21, 1981, Safety Light requested the NRC to change the name on its licenses to Safety Light. Aside from this request, none of the corporations involved in these complicated and extensive transactions informed the NRC of any of the above-described transactions. That 1981 letter of notification to the NRC stated:

Dear Sir:

This is to advise you officially that, effective 24 November 1980, our Company name was changed from United States Radium Corporation to Safety Light Corporation.

Our facility location is the same as before, with the exception that the mailing address has been modified to specify our actual building, rather than the general plant site. Therefore, in the future, kindly address all correspondence to the following:

Safety Light Corporation
4150-A Old Berwick Rd.
Bloomsburg, PA 17815

Our telephone number remains unchanged, as shown above.

Very truly yours,
SAFETY LIGHT CORPORATION

Jack Miller
President

³⁰ Proxy Statement, *supra*, at 15.

³¹ ASE Listing Application, *supra*, at 3.

³² Letter dated July 11, 1980, *supra*, at 2.

On March 7, 1983, in response to Safety Light's January 21, 1981 request, the NRC amended the licenses to change the name of the licensee from U.S. Radium to Safety Light.³³ When the NRC issued this amendment, the only information that it had indicated that Safety Light was identical to U.S. Radium before the 1980 restructuring. The NRC then had no knowledge that U.S. Radium had been a subsidiary of USR Industries, or that many of U.S. Radium's assets had been transferred to the other USR companies.

On May 24, 1982, USR Industries sold its wholly owned subsidiary, Safety Light, to three individuals.³⁴ No corporation or individual involved with this transaction requested or obtained the NRC's permission or approval to execute this transaction. The NRC has never given its written consent to this transaction.

On April 20, 1988, the NRC issued a Demand for Information to U.S. Radium, USR Industries, Safety Light, and their subsidiaries and successor corporation.³⁵ Based on the information obtained through this Demand, the NRC issued the March 16, 1989 Order.

D. The NRC Has Jurisdiction Over the USR Companies

The beginning and the end of any analysis of NRC jurisdiction over parties and alienability of licenses must rest upon the express statutory requirements established by Congress in section 104 of the Atomic Energy Act.³⁶ In mandatory language entitled "Inalienability of Licenses," it provided that no license or rights granted thereby shall be disposed of in any manner, *unless* the Commission shall

³³ Amendment No. 42 to the 02 license.

³⁴ Letter dated November 11, 1983, Exhibit B to the "Memorandum of Law in Support of the Motion of USR Industries, Inc., USR Lighting, Inc., USR Chemicals, Inc., USR Metals, Inc., and U.S. Natural Resources, Inc. to Stay the Order Issued August 21, 1989," dated November 6, 1989. The November 11, 1983 letter provided in pertinent part:

Gentlemen:

Safety Light Corporation has been requested by representatives of the Region I Office of the U.S.N.R.C. to clarify the following items:

1. As previously stated in correspondence of 21 January 1981 and properly incorporated into all our existing licenses, effective 24 November 1980, our Company name was changed from United States Radium Corporation to Safety Light Corporation. There were no organizational changes made due to the name change.
2. On 24 May 1982, USR Industries, Inc., 2203 Timberloch Place, The Woodlands, TX; finalized the sale of the stock of its wholly owned subsidiary Safety Light Corporation to a group of executive officers of Safety Light Corporation.

The following individuals now own 100% of the stock of Safety Light Corporation:

John T. Miller — President

David J. Watts — Vice President

Charles R. White — Vice President

³⁵ NRC Demand for Information, April 20, 1988.

³⁶ 42 U.S.C. § 2234 (1982). See our discussion of these statutory and regulatory provisions in Section I.A, pp. 120-22, *supra*.

after securing full information, find that the transfer is in accordance with the Atomic Energy Act, and shall give its *consent in writing*. None of these explicit requirements has been met by any of the corporate parties of this proceeding at any time.

The United States Radium Corporation was organized and chartered in Delaware in 1917. It was issued a number of licenses and renewals dealing with the use of byproduct or radioactive material starting March 16, 1956.³⁷ Apparently for many years it engaged in business involving licensed and non-licensed activities at its site in Bloomsburg, Pennsylvania.

Rather suddenly on May 14, 1980, the United States Radium Corporation initiated a series of complicated and interrelated corporate restructuring actions which fundamentally changed the form and status of this licensee.³⁸ At that time the United States Radium Corporation created its wholly owned subsidiary USR Industries, and the latter's wholly owned subsidiary Industries Merger Company. All three corporations had identical boards of directors, and the same individual was chairman of the board. None owned any assets except United States Radium Corporation.

On the execution of the Merger Plan, United States Radium Corporation's ownership of USR Industries would cease, and the parent corporation would become the wholly owned subsidiary of USR Industries. The only assets that USR Industries acquired through execution of the merger were the assets of United States Radium Corporation before the merger. Subsequently, USR Industries reorganized the businesses of its now wholly owned subsidiary United States Radium Corporation, into five wholly owned subsidiaries, with the safety lighting operations at Bloomsburg, Pennsylvania, segregated from all other assets in a company named U.S. Radium.³⁹ On November 24, 1980, USR Industries changed the name of its former parent, the United States Radium Corporation, to the Safety Light Corporation.

None of this elaborate and complex corporation restructuring was revealed to the NRC, although very detailed disclosures were made to others.⁴⁰ The only communication to NRC was a letter dated January 21, 1981, stating that the company name was changed from United States Radium Corporation to Safety Light Corporation, but the facility location was the same.⁴¹ There was absolutely no disclosure of the recent extensive corporate changes involving this NRC licensee.

³⁷ See Section LB, pp. 122-23, *supra*.

³⁸ See Section LC, pp. 124-26, *supra*.

³⁹ *Id.*, p. 125.

⁴⁰ Listing Application to American Stock Exchange, August 21, 1980 (Attachment 2, Staff's Nov. 16, 1989 Brief); Merger Plan, May 16, 1980, Attachment 4; Proxy Statement, July 11, 1980, Attachment 3.

⁴¹ *Supra*, p. 125.

There was no notice given of the transfers of controlling interest in the stock which could involve transfers of ownership and control of a license, requiring NRC written consent. In short, there was not even an attempt to comply with the mandatory requirements regarding "transfer of control of any license" upon written consent by the NRC after securing full information.⁴² The statute requires a full, fair disclosure to be made by licensees of actions involving the transfer or control of licenses, so that the NRC can make an informed judgment whether such actions are in accordance with the Atomic Energy Act. Clearly financial and other considerations related to decontamination of the site of licensed nuclear byproduct activities could and should be reviewed by the NRC in fulfilling its statutory responsibilities. However, the NRC never had an opportunity to review the effect of the significant changes in the licensed corporation because of the nondisclosure of the facts by the parties to this proceedings. As a result of noncompliance with the statutory requirements, the transfers of control of the licenses by corporate restructuring were invalid as to the NRC which is obligated by statute to disregard them.

On May 24, 1982, USR Industries sold 100% of its stock interest in its wholly owned subsidiary, Safety Light Corporation, to three members of its operating management. By letter dated November 23, 1983, Safety Light informed the NRC that:

The following individuals now own 100% of the Stock of Safety Light Corporation:

John T. Miller — President

David J. Watts — Vice President

Charles R. White — Vice President

That letter to the NRC further stated:

As previously stated in correspondence of 21 January 1982 and properly incorporated into all our existing licenses, effective 24 November 1980, our Company name was changed from United States Radium Corporation to Safety Light Corporation. There were no organizational changes made due to the name change.⁴³

Once again there was no affirmative disclosure of changes in 100% stock ownership and transfer of control over licenses, and no written consent by the NRC pursuant to the statutory mandate. The prohibitions against unapproved transfers of control of licenses enacted by Congress cannot be ignored or avoided by licensees or by the NRC itself. The attempted transfers of ownership and control by the USR Companies were ineffective to eliminate NRC jurisdiction over the succeeding entities because the transfers were in violation of statutory

⁴² 42 U.S.C. § 2234; 10 C.F.R. § 30.34(b)

⁴³ Brief of USR Industries dated November 20, 1989, Exhibit B.

requirements. The strong public policy established by Congress cannot be defeated or eroded by using corporate forms to shield licensees from their obligations to protect the public health and safety. USR Industries remain responsible for decontaminating the Bloomsburg site under the licenses, and the NRC has jurisdiction over them to compel compliance in this enforcement proceeding.

The USR Companies have advanced a number of arguments in support of their challenge to NRC jurisdiction over them in this proceeding. We have considered these contentions and hold that they do not bar NRC jurisdiction. For example, USR Companies argue that only ownership, not control, was transferred, and that stock may regularly be bought and sold without NRC prior approval.⁴⁴ Such arguments overlook the instant facts where massive transfers such as 100% of stock ownership are involved, and clearly control follows such deep-seated restructuring. Fundamental changes in corporate structure, ownership, and control are the same as attempted transfers or assignments of licensees. Such ownership and control transfers apply to both the 1980 restructuring and the 1982 sale of all the Safety Light stock to the three management individuals.

The validity of the Safety Light license, and the purposes for which NRC issued IN-89-25 on March 15, 1989, are unaffected by the license transfers attempted by changes of the licensees in this case.

The strong public policy enunciated by Congress in barring unapproved transfers of control of licensees is controlling, and hence there can be no avoidance of such mandatory requirements by NRC acquiescence,⁴⁵ delays,⁴⁶ laches or equitable estoppel,⁴⁷ notification of SEC or its own shareholders,⁴⁸ alleged business reasons as justification,⁴⁹ spinoffs,⁵⁰ or the provisions of 10 C.F.R. Part 50.⁵¹

⁴⁴ USR Brief dated November 6, 1989, at 13-15.

⁴⁵ *Id.* at 13.

⁴⁶ *Id.* at 20.

⁴⁷ *Id.* at 4, 13-14.

⁴⁸ *Id.* at 10-12.

⁴⁹ *Id.* at 11.

⁵⁰ *Id.* at 11-12.

⁵¹ USR Industries Brief dated January 3, 1990 at 9-12.

Accordingly, we hereby deny the motions by USR Companies to dismiss for lack of jurisdiction.

IT IS SO ORDERED.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Marshall E. Miller, Chairman
ADMINISTRATIVE JUDGE

Bethesda, Maryland
January 29, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kenneth M. Carr, Chairman
Thomas M. Roberts
Kenneth C. Rogers
James R. Curtiss
Forrest J. Remick

In the Matter of

Docket Nos. 50-448
50-449

HOUSTON LIGHTING AND
POWER COMPANY
(South Texas Project, Units 1
and 2)

February 8, 1990

The Commission denies the motion of Mr. John Corder for a protective order staying the enforcement of an administrative subpoena issued to him by the NRC Staff in connection with his concerns and allegations regarding the South Texas Project. The Commission believes that Mr. Corder is in a position to comply with the subpoena, notwithstanding the pendency of an FOIA request he filed with the NRC.

NRC: ENFORCEMENT OF SUBPOENAS

ENERGY REORGANIZATION ACT: SECTION 210 SETTLEMENT AGREEMENTS

The NRC Staff's request that an allegor provide to it any concerns that the allegor had not provided previously should not be construed as an invitation to allow an allegor the opportunity to review all prior NRC Staff actions on his previous concerns or allegations, or to pass judgment on the technical correctness of the NRC Staff's actions. Rather, the purpose of the request is to give the allegor the opportunity to express concerns to the Staff that he may have failed

to furnish previously because of the existence of a settlement agreement, entered into by the allegor and his former employer, which may have been read to restrict the allegor from bringing his concerns to the agency.

NRC: ENFORCEMENT OF SUBPOENAS

The Commission believes that an allegor need not await the processing of a pending FOIA request regarding his previous concerns and allegations in order to comply with an administrative subpoena requesting that he provide the NRC with information on whether he withheld safety concerns from the NRC, developed new concerns since his termination of employment with the Licensee, or has an interest in the manner in which his previously expressed concerns were addressed.

ORDER

I. INTRODUCTION

This matter is before the Commission on a motion by Mr. John Corder for a protective order staying the enforcement of an administrative subpoena issued by the NRC Staff on December 1, 1989. Mr. Corder asks that the Commission stay the subpoena until the NRC has responded to a request under the Freedom of Information Act ("FOIA") for all records "relevant to and/or generated in connection with [his] concerns and allegations about the South Texas Project ("STP") from June 1986 to the present." FOIA Request (Sept. 28, 1989) at 1. After due consideration, we deny the motion for protective order for the reasons stated herein.

II. FACTUAL BACKGROUND

In the spring of 1989, the NRC became aware of the possibility that settlement agreements in several Department of Labor ("DOL") employment discrimination cases might contain possible barriers to individuals bringing safety concerns to the NRC. Accordingly, on April 27, 1989, the NRC's Executive Director of Operations ("EDO"), issued a letter to all utilities, major architect-engineers, nuclear steam supply system vendors, fuel cycle facilities, and major materials licensees, concerning provisions in settlement or other agreements that might be interpreted to restrict a person or party from communicating safety concerns

to the NRC. Among other actions, this letter requested those entities to identify any such restrictive provisions in any settlement agreements to the NRC.

In response to the EDO's letter, the Bechtel Corporation, Mr. Corder's former employer, identified a settlement agreement between it and Mr. Corder resolving an employment discrimination dispute under section 210 of the Energy Reorganization Act as having potentially restrictive language. *See In the Matter of John A. Corder*, 88-ERA-9 (Oct. 28, 1988). In turn, an NRC Staff representative wrote Mr. Corder's attorney of record asking if Mr. Corder had any "information concerning potential safety issues which have not been provided to the NRC" and inviting him to bring any concerns that he might have to the NRC's attention. *See Letter from Dennis Crutchfield to Robert T. Rice, Esq.* (Sept. 5, 1989) (emphasis added). In the interim, Bechtel notified Mr. Corder's attorney that "the settlement [agreement] does *not* prevent nor should it discourage" Mr. Corder from asserting any safety concerns and that he was free to bring "to the attention of the appropriate agencies any information about nuclear power plant safety" *See Letter from H. Roger McPike to Robert T. Rice, Esq.* (June 29, 1989) at 1-2.

In response, Mr. Corder — through new counsel — did not allege that he had failed to provide information to the NRC. Instead, he indicated that he had "concerns that he believes the NRC has not evaluated" and sought to impose "terms" or "conditions" on his presentation of such information to the NRC. *See Letter from Billie P. Garde, Esq., to Dennis Crutchfield* (Sept. 28, 1989). Among those "terms" was a request that the Staff subpoena Mr. Corder "to protect him from a potential breach of contract action by Bechtel for violating the terms of his settlement," *id.* at 2, notwithstanding Bechtel's June 29th letter. On the same day, Mr. Corder's counsel filed the FOIA request noted above.

Negotiations between the parties continued until December 1, 1989, when the Staff issued the subpoena now before us. The subpoena called for Mr. Corder's appearance on December 19, 1989, at a location near his residence. On December 11, 1989, Mr. Corder filed a motion seeking (1) to modify the subpoena making it returnable at another location and (2) to delay the subpoena until after the Staff had responded to his FOIA request. Subsequent negotiations have resolved the first issue, the location of the interview. Accordingly, the parties agree that this issue is now moot. The NRC Staff has responded to the motion for protective order and Mr. Corder has filed a reply.

Briefly, Mr. Corder alleges that he has provided information to the NRC Staff on numerous occasions and that he "has no way of knowing without reviewing documents in possession of the NRC staff [*sic*] what issues were recorded by the NRC for inspection or investigation and what became of those issues." Reply at 4. He also alleges that he "is not satisfied that the issues he raised which have been previously evaluated by the Staff and apparently closed were even understood" *Id.* at 4-5. Finally, he alleges that he cannot be expected to

remember all the "specific details that have been previously provided to the Staff with any degree of accuracy or reliability" regarding the South Texas Project. *Id.* at 5. For all those reasons, Mr. Corder seeks to delay responding to the subpoena until after he receives and reviews the response to his FOIA request.

According to both Mr. Corder's Motion and his Reply, the NRC's FOIA Offices have responded to his request by asking that he pay the necessary search and copying fees. *See* 10 C.F.R. §§ 9.37-9.40. Mr. Corder also alleges that on December 11, 1989, he filed a request for a waiver of fees, 10 C.F.R. § 9.40, and that he filed a second FOIA request which he hopes will be exempt from the fee requirement.

III. ANALYSIS

Mr. Corder apparently confuses the purpose of the invitation issued to him on September 5 by the Staff. The purpose of the invitation was not to allow him the opportunity to review all prior NRC Staff actions on his previous concerns or allegations and to pass judgment on the technical correctness of the NRC Staff's actions. Instead, the purpose was to give him the opportunity to *present* any concerns to the Staff which he had not previously provided to the NRC. In sum, the Staff's request did not involve Mr. Corder's previously expressed concerns but was simply an opportunity for Mr. Corder to express concerns that he may have failed to furnish previously because of the existence of a settlement agreement that might have been read to restrict such communications.

Lest there be any doubt, the NRC Staff will listen to any concerns Mr. Corder wishes to express — whether they be concerns he withheld from the NRC, concerns he has developed over the years since his termination with Bechtel, or concerns he simply suspects may not have been adequately addressed. But independent of his FOIA request, Mr. Corder should be in a position to know whether he withheld concerns from the NRC, developed new concerns since his termination with Bechtel, or has an interest in the manner in which his previously expressed concerns were addressed. NRC records are not necessary for any of those purposes. Accordingly, we see no reason to delay Mr. Corder's compliance with the subpoena. We see no legal obstacle to Mr. Corder's presenting any safety concerns to the NRC at this time and we emphasize the need for the communication of safety concerns without delay. If Mr. Corder wishes to communicate other concerns or information after his FOIA request has been processed, he is welcome to do so.

IV. CONCLUSION

For the foregoing reasons, the motion for protective order is denied.
It is so ORDERED.

For the Commission

SAMUEL J. CHILK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of February 1990.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

G. Paul Bollwerk, III, Chairman
Alan S. Rosenthal
Howard A. Wilber

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(Offsite Emergency
Planning Issues)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

February 26, 1990

The Appeal Board denies an intervenor's motion to reopen a portion of the record in the operating license proceeding involving the Seabrook nuclear power facility as untimely and because it does not present an "exceptionally grave issue," within the meaning of 10 C.F.R. § 2.734(a)(1).

RULES OF PRACTICE: MOTIONS TO REOPEN RECORD

The Commission's Rules of Practice explicitly require the denial of an untimely motion to reopen a record unless the motion presents "an exceptionally grave issue." 10 C.F.R. § 2.734(a)(1).

RULES OF PRACTICE: MOTIONS TO REOPEN RECORD; MULTIPLE BOARD PROCEEDINGS

Where two licensing boards were considering different aspects of an emergency response alert and notification system, pendency of reopening motion before one licensing board based on a particular event does not excuse delay of three months in filing a motion to reopen before the second board based on the same event because the first board could not assess the impact of that event upon those matters that were within the jurisdiction of the second board. *Cf. Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-902, 28 NRC 423, 429 (licensing board can dismiss a party from only the part of the proceeding within that board's purview), *review declined*, CLI-88-11, 28 NRC 603 (1988). This being so, there was no potential for "the dual litigation of the same issue with possibly inconsistent results." *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-916, 29 NRC 434, 439 (1989).

APPEARANCES

Leslie B. Greer, Boston, Massachusetts, for the intervenor James M. Shannon, Attorney General of Massachusetts.

Thomas G. Dignan, Jr., George H. Lewald, Kathryn A. Selleck, and Jeffrey P. Trout, Boston, Massachusetts, for the applicants Public Service Co. of New Hampshire, *et al.*

Lisa B. Clark for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

Before us is the February 1, 1990 motion of the intervenor Attorney General of Massachusetts to reopen a portion of the record in this operating license proceeding involving the Seabrook nuclear power facility. The motion is founded upon a development said to have affected the adequacy of a segment of the alert and notification system for the Massachusetts communities within the plume exposure pathway emergency planning zone (EPZ) for the Seabrook facility. That development was the decision of radio station WCGY to repudiate a previous letter of agreement calling for the station's participation in the alert and notification system. That decision was memorialized in an October 20,

1989 letter from a station official to the applicants, a copy of which was sent to counsel for the Attorney General.¹

The Commission's Rules of Practice explicitly require the denial of an untimely motion to reopen a record unless the motion presents "an exceptionally grave issue."² In this instance, there can be little doubt that the motion is untimely. It is equally clear that the motion does not present an "exceptionally grave" issue. Accordingly, we agree with the applicants and the NRC staff that it must be denied.

A. Timeliness

1. Issues pertaining to the alert and notification system for Massachusetts communities were put before two separate Licensing Boards, one chaired by Judge Bloch and the other by Judge Smith. For its part, the Bloch Board was assigned the question of the efficacy of that portion of the system involving the applicants' proposal to use vehicles upon which sirens would be mounted (referred to as the VANS proposal). In a June 23, 1989 decision, that Board upheld the VANS proposal. In the course of doing so, the Bloch Board took note of the Emergency Broadcast System (EBS) component of the overall alert and notification system.³

The Smith Board's role in the alert and notification sphere was considerably broader than that of the Bloch Board. Its jurisdiction extended to all matters in that sphere other than the VANS issue specifically assigned to the Bloch Board. In this connection, on November 9 and 22, 1989, the Attorney General (in conjunction with other intervenors) filed reopening motions with the Smith Board. Those motions were based upon the WCGY repudiation action and requested the reopening of the record before the Smith Board to allow the introduction of a new contention addressed to the repudiation. According to the intervenors, the repudiation brought into question the adequacy of the overall emergency response plan for the Massachusetts portion of the EPZ. On January 8, 1990, the Smith Board denied the motions on a variety of grounds.⁴ That denial is now on appeal.

2. The Attorney General's motion to us seeks to reopen the record before the Bloch Board. Its theory is that that Board's decision last June was vitiated by the WCGY repudiation because the decision took into account an EBS for

¹ See letter from John F. Bassett to B. Boyd, Jr. (Oct. 20, 1989), appended to the Attorney General's February 1 motion as Exhibit C to Attachment F of Exhibit 2.

² 10 C.F.R. § 2.734(s)(1).

³ LBP-89-17, 29 NRC 519, 532-34 (1989), *appeal pending*.

⁴ LBP-90-1, 31 NRC 19 (1990), *appeal pending*.

the Massachusetts portion of the EPZ in concluding that the applicants' VANS proposal was acceptable.

Assuming the validity of that theory, the Attorney General should have raised it promptly upon learning of the WCGY action taken in October — rather than more than three months thereafter. The Attorney General attempts to justify the delay on the ground of the pendency of the reopening motion filed with the Smith Board, which rested upon the same event. That explanation will not do. It overlooks the fact that the Smith Board obviously could not decide whether the WCGY action had any impact (let alone the dire effect now suggested by the Attorney General) upon the Bloch Board's conclusion respecting the adequacy of the VANS proposal. Only the Bloch Board, or this Board or the Commission on appellate review, is in a position to pass judgment on that matter.⁵

Indeed, the Attorney General himself appears implicitly to acknowledge the line of separation existing between the jurisdiction of the two Licensing Boards. But for that separation, there would have been no need for him to file the February 1 motion in light of his then (and still) pending appeal from the Smith Board's denial of the motion filed with that Board.

B. Exceptionally Grave Issue

The motion at hand fails to raise such an "exceptionally grave issue" that we would be free to ignore its manifest untimeliness. We are unpersuaded from a reading of the Bloch Board's June 1989 decision on the VANS proposal that its approval of that proposal hinged to any significant extent on the participation of WCGY. On this score, it is noteworthy that the principal EBS relied upon by the applicants for the Massachusetts communities does not include WCGY but, rather, employs two stations (WHAV and WLYT) with which the applicants have a contractual arrangement.⁶

It may not necessarily follow that the WCGY repudiation is irrelevant to the issue of the overall adequacy of the emergency response plan for the Massachusetts EPZ. As earlier noted, the Attorney General is seeking our consideration of that matter on his appeal from the Smith Board's denial of the

⁵*Cf. Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-902, 28 NRC 423, 429 (licensing board can dismiss a party from only the part of the proceeding within that board's purview), *review declined*, CLI-88-11, 28 NRC 603 (1988). This being so, there was no potential here for "the dual litigation of the same issue with possibly inconsistent results." See ALAB-916, 29 NRC 434, 439 (1989).

⁶See Attachment A to Exhibit 1 of Exhibit 4 appended to the Attorney General's February 1 motion. In light of this consideration, it appears of no present moment whether there is an existing Commonwealth of Massachusetts (i.e., state) EBS for Seabrook. Thus, we need not concern ourselves here with the Attorney General's reliance on the fact that WCGY's repudiation of its letter of agreement calling for participation in the Seabrook alert and notification system rested (at least in part) on that station's conclusion that no such EBS is now in existence.

For all that appears, the Attorney General did not make a timely challenge before the Bloch Board to the ability of WHAV and WLYT, under their contractual arrangement with the applicants, to provide the necessary radio notification.

reopening motion filed with that Board. Such consideration is not foreclosed by our ruling here, which is simply that the section 2.734 requirements have not been met insofar as the Bloch Board's decision in LBP-89-17 is concerned.

The Attorney General's February 1, 1990 reopening motion is *denied*.
It is so ORDERED.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Marshall E. Miller, Chairman
Oscar H. Paris
Frederick J. Shon

In the Matter of

Docket Nos. 030-05980

030-05981

030-05982

030-08335

030-08444

(ASLBP Nos. 89-590-01-OM

90-598-01-OM-2)

SAFETY LIGHT CORPORATION, *et al.*
(Bloomsburg Site Decontamination)

February 8, 1990

The Licensing Board reconsiders and modifies its prior stay *pendente lite* of the immediate effectiveness of one of two Staff enforcement orders. The Staff order in question required the parties to begin monthly payments into a fund intended to defray the costs of a site characterization study, and made the monies in that fund immediately available for expenditure. In modifying its prior stay, the Licensing Board permits the requirement of payment to become immediately effective but stays any expenditure of such funds pending further order of the Board.

RULES OF PRACTICE: STAY OF AGENCY ACTION (CRITERIA)

The four-factor test was codified by the Commission with regard to requests for stays of immediately effective decisions in 10 C.F.R. § 2.788. Although the

regulation does not explicitly apply to decontamination enforcement orders, it is logical to apply those well-recognized standards in considering the equitable remedy of a stay of such orders.

RULES OF PRACTICE: STAY OF AGENCY ACTION (CRITERIA)

In a decontamination enforcement proceeding, the public interest is the most important consideration. This factor argues against a stay where the documentary record tends to establish that it is in the public interest for prompt action to be taken to require corporations and others responsible for polluting a site with nuclear contamination to clean up the site.

ORDER

(Reconsidering and Modifying Stay *Pendente Lite* of Immediate Effectiveness Orders of March and August 1989)

On November 22, 1989, this Board issued an Order that converted our temporary stay of the immediate effectiveness of the Staff's Order of August 21, 1989, to a stay *pendente lite*. Our Order also directed USR Industries to file a statement within 30 days describing its plan to fund the costs of (1) site characterization and (2) decontamination of the Bloomsburg site if the Board should conclude that USR Industries and/or its subsidiaries are legally liable for such costs. That statement was to include the sources of the funds, indicating what percentage of a sum equal to one-half of the necessary site characterization funds set out in the Director's Order Modifying Licenses (Effective Immediately) of August 21, 1989, would be derived from (a) proceeds of insurance policies, (b) current cash accounts not otherwise legally committed, and (c) noncash assets.

At a prehearing conference held on November 29, 1989, the Staff requested the Licensing Board to issue a memorandum discussing its application of the *Virginia Petroleum Jobbers* criteria to the facts of this proceeding.¹ By an Order dated December 1, 1989, the Board clarified that its November 22, 1989 Order imposed a stay *pendente lite* of both the March 16 and August 21 Orders, and that the stay included the Safety Light Corporation (SLC) as well as USR Industries.

USR Industries submitted the funding information directed by this Board in its November 22 Order by means of a letter from counsel dated December 21, 1989. That letter stated that there was no funding plan because "USR

¹Tr. 120-21.

Industries maintains that the NRC lacks regulatory jurisdiction over it, and considering the current uncertainties regarding available insurance proceeds and USR Industries' patently inadequate financial resources in the absence of such insurance . . . USR Industries currently does not have a plan to fund the costs of site characterization, much less the costs of site decontamination. Obviously, if, in the final analysis, USR Industries is held liable for characterization and cleanup of the Bloomsburg site, it will have no choice other than to seek protection under the bankruptcy statutes."

The Board on January 29, 1990, entered an Order denying the motions of USR Industries to dismiss the NRC orders of March 16 and August 21, 1989, for lack of jurisdiction over those parties. The March Order² required all of the named parties to prepare plans for site characterization and decontamination of the Bloomsburg, Pennsylvania site, and to specify that amount of funds that each party would provide for implementation of the plan. The August Order³ stated that the

Corporations' failure to provide assurance of adequate funding to complete implementation of a satisfactory site characterization plan, the uncertainty regarding the nature and extent of contamination at the Bloomsburg facility, and the statements made by the Corporations' principal officers as to the limited financial resources available for site characterization let alone decontamination, demonstrate that additional actions are immediately needed to protect public health and safety by assuring that sufficient resources are made available by the Corporations to initiate and complete the site characterization and take necessary immediate remedial action for any significant health and safety problems.

The August Order further directed USR Industries and SLC to establish a trust fund into which specified sums were to be deposited monthly from October 2, 1989, to September 4, 1990. These monthly deposits would total \$1,000,000, and the USR Industries were to be jointly and severally responsible for satisfying the payment schedule thus established. Disbursements could be made from the trust funds to designated contractors to implement an NRC-approved plan to characterize the type and extent of the radioactive contamination at the Bloomsburg facility, and to take immediate remedial action at any time such action was necessary.⁴ Both the March Order and the August Order were made "Effective Immediately."

The Board's Order of January 29, 1990, found that the NRC has jurisdiction over the parties as a result of their unauthorized transfers of control of licenses dealing with the use of byproduct or radioactive material. Section 184 of the Atomic Energy Act of 1954⁵ provides that no license or right to utilize

² 54 Fed. Reg. 12,035 (Mar. 23, 1989).

³ 54 Fed. Reg. 36,070 (Aug. 21, 1989).

⁴ *Id.* at 36,079-80.

⁵ 42 U.S.C. § 2234 (1982). *See also* 10 C.F.R. § 30.34(b).

special nuclear material, shall be transferred, assigned or disposed of in any manner, unless the Commission shall *after securing full information, find* that the transfer is in accordance with the Atomic Energy Act, and shall give its *consent in writing*. None of these explicit, mandatory statutory requirements was met at any time by any of the corporate parties to this enforcement proceeding. Accordingly, the NRC could disregard the "series of complicated and interrelated corporate restructuring actions which fundamentally changed the form and status of this license."⁶ The transfers of control of the licenses, by the fundamental and undisclosed restructuring of the corporate licensee, were invalid under section 184, *supra*, and should be disregarded by the NRC, which has jurisdiction over the corporate parties.⁷

This Order is intended to respond to the Staff's request for a discussion of the Board's reasons for granting a stay of the immediate effectiveness of the March and August Orders. However, there have been various changes of circumstances which have modified our conclusions regarding the previous stay *pendente lite* of the NRC Orders.⁸ Accordingly, the Staff's request will be treated as a motion for reconsideration of the stay order.

Briefs and memoranda of law filed by counsel for both USR Industries and the NRC Staff have stated that this Board has the power and authority to stay the immediate effectiveness of such orders.⁹ We concur in those conclusions. We also agree that in considering a stay a determination should be made regarding the four factors stated in *Virginia Petroleum Jobbers*.¹⁰ The Commission has codified the tests for consideration of stays of the immediate effectiveness of initial decisions regarding construction permits or operating licenses, issued under the provisions of 10 C.F.R. § 2.764.

The four factors test was codified by the Commission with regard to requests for stays of such immediately effective decisions, in 10 C.F.R. § 2.788. Although the latter regulation does not explicitly apply to enforcement orders such as are involved in the instant proceeding, it is logical to apply those well-recognized standards in considering the equitable remedy of a stay sought herein. The factors to be considered by the Board under § 2.788(e) are:

- (1) Whether the moving party has made a strong showing that it is likely to prevail on the merits;
- (2) Whether the party will be irreparably injured unless a stay is granted;
- (3) Whether the granting of a stay would harm other parties; and
- (4) Where the public interest lies.

⁶ Order Denying Motions to Dismiss NRC Orders Issued March 16, 1989, and August 21, 1989, for Lack of Jurisdiction, at 19-20.

⁷ *Id.* at 21-22.

⁸ Licensing Board Order issued November 22, 1989.

⁹ Briefs by both parties filed November 6, 1989, and Staff's Response of November 16, 1989.

¹⁰ *Virginia Petroleum Jobbers Ass'n v. Federal Power Commission*, 259 F.2d 921, 925 (D.C. Cir. 1958).

The first factor to be weighed is whether the moving party has made a strong showing that it is likely to prevail on the merits. By reason of our holding on the issue of jurisdiction in our January 29, 1990 Order, this factor is strongly against the movant, USR Industries. The entire record to date including numerous undisputed documents was reviewed in detail by the Board. Coupled with the mandatory but unfulfilled requirements of section 184 of the Atomic Energy Act, *supra*, it is not likely that USR Industries will prevail on the merits of this issue.

The second factor considers whether the moving party will be irreparably injured unless a stay is granted. USR Industries alleges that it does not have the financial means to comply with the August Order, and that the "result of that order is likely bankruptcy."¹¹ However, the fact that the company is in financial difficulty formed part of the very reason that the August Order was made immediately effective. It seems logical that NRC concern over the financial ability of USR Industries to meet its site decontamination responsibilities would cut against a stay. Any delay in setting aside funds monthly for site characterization could also result in this company's ultimate failure to discharge its site decontamination obligations.

The Staff challenges the showing of a likely bankruptcy by citing a verified letter from the Chairman and President of USR Industries stating that the companies had a consolidated worth of \$1.6 million.¹² That letter further stated that USR Industries was planning on completing a sale of interests in a limited partnership which owns a small commercial office building in Houston, Texas, "so as to provide immediate corporate liquidity."¹³ It disclosed that five primary insurance companies had previously "provided assistance of over \$2,000,000 pursuant to a Defense Agreement executed in 1985, between such insurers, Safety Light and These Respondents."¹⁴ Finally, the President of USR Industries stated that "[w]hile very small, These Respondents provide meaningful employment in a rural area of Pennsylvania, and are operating profitably on a monthly cash flow basis (*before* legal fees)."¹⁵

Since the alleged facts concerning the financial condition of USR Industries are in controversy, the Board cannot make findings on the present record. Such findings must await the evidentiary hearing in June 1990 to the extent that those issues may be relevant and material. However, on principle we note that in

¹¹ USR Industries Brief of November 6, 1989, at 20.

¹² Letter dated September 19, 1989, from Ralph T. McElvenny, Jr., President, to William T. Russell, Regional Administrator, NRC Region 1, at 4 (Attach. 9, Staff Brief dated November 16, 1989).

¹³ *Id.* at 2.

¹⁴ *Id.*

¹⁵ *Id.* at 3.

its various filings USR Industries has frequently raised the specter of incipient bankruptcy.¹⁶

If these threats of bankruptcy proceedings are merely tactical efforts to avoid the deposit of funds as ordered, then the short answer is that the NRC should not permit itself to be coerced thereby. On the other hand, if the financial condition of the company amounts to insolvency in the bankruptcy sense, then possibly the sooner the better as far as filing for bankruptcy is concerned either in a Chapter 11 reorganization or a liquidation proceeding. The record made by the company indicates that several million dollars were raised some years ago for litigation, but apparently none was spent for site characterization of decontamination.¹⁷ The company has resumed the present litigation with its resultant expenses but has failed or refused to make monthly payments for decontamination purposes. The second factor weighs against the stay requested by the moving party.

The third factor considers whether granting a stay would harm other parties. The Staff contends that soil, groundwater, and buildings on the Bloomsburg site are contaminated with various radioactive materials, and that latent site conditions may affect public health and safety. The Board views this factor as, in effect, coalesced with the fourth element discussed next. The Staff does not have nor does it plead an interest other than the public interest. We treat that interest *infra*.

The fourth factor concerns where the public interest lies. In a decontamination enforcement proceeding such as this, the public interest is the most important consideration. The present documentary record tends to establish for the purpose of considering a stay motion that it is in the public interest for prompt action to be taken to require corporations and others responsible for polluting a site with nuclear contamination to clean up the site. It appears in this case that continued delays will make ultimate decontamination efforts more difficult and more expensive. The companies here involved claim to be losing money, and litigation certainly contributes significantly to that result. By the time a decision on the merits has been made after a hearing and potential appeals, there may be no money left for any site decontamination,¹⁸ which is greatly contrary to the public interest.

The Board finds that upon weighing the four factors stated in *Virginia Petroleum Jobbers*, the motions to stay the immediate effectiveness of the NRC March and August 1989 Orders should be denied. However, we further find that all funds that are deposited by the USR Industries should be paid into an escrow fund but not be disbursed or committed until the evidentiary hearings requested

¹⁶ USR Industries' Brief filed November 6, 1989, at 20; Brief of November 20, 1989, at 4 n.4; and December 21, 1989 Letter from counsel of USR Industries to the Board at 2.

¹⁷ See note 12, *supra*.

¹⁸ We note that counsel for the Safety Light Corporation (SLC) has withdrawn her appearance in this proceeding on January 4, 1990, and no substitute appearance has been filed.

in these proceedings have been concluded and appropriate orders issued by the Board.

IT IS SO ORDERED.

FOR THE ATOMIC SAFETY
AND LICENSING BOARD

Marshall E. Miller, Chairman
ADMINISTRATIVE JUDGE

Bethesda, Maryland
February 8, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

John H Frye, III, Chairman
Dr. James H. Carpenter
Dr. Jerry R. Kline

In the Matter of

Docket No. 40-2061-ML
(ASLBP No. 83-495-01-ML)

KERR-McGEE CHEMICAL
CORPORATION
(West Chicago Rare Earths
Facility)

February 13, 1990

This Initial Decision directs Staff to issue a license amendment to Kerr-McGee Chemical Corporation which will permit it to dispose of certain thorium mill tailings in an engineered disposal cell to be constructed on its West Chicago, Illinois site. It follows LBP-89-35, 30 NRC 677 (1989), in which certain issues were resolved in Kerr-McGee's favor on cross-motions for summary disposition, and certain other limited issues were set down for hearing.

In this Initial Decision, the Licensing Board interprets Criterion 1 to 10 C.F.R. Part 40, Appendix A, finds facts following a hearing on those limited issues, and decides a motion for summary disposition of all other issues remaining to be decided. The Licensing Board concludes that Kerr-McGee's proposed disposal cell satisfies the requirements of 10 C.F.R. Part 40, Appendix A, by wide margins and that there is a high degree of assurance that no significant contamination will occur as a result of the disposal of the West Chicago mill tailings in it.

10 C.F.R. PART 40, APPENDIX A, CRITERION 1: OPTIMIZATION OF GOALS

Criterion 1 requires that the goals of remoteness from population and hydrologic factors must be optimized in choosing among alternative mill tailings disposal sites.

10 C.F.R. PART 40, APPENDIX A, INTRODUCTION: FLEXIBILITY IN APPLYING CRITERIA

The Introduction to Appendix A provides that consideration must be given to economic factors in choosing among alternatives and permits applicants to propose alternatives to specific requirements. These provisions dictate that the Appendix A criteria must be applied flexibly with due consideration of the costs of achieving certain benefits under the criteria.

10 C.F.R. PART 40, APPENDIX A, CRITERION 1: OPTIMIZATION OF GOALS

Where the evidence supports the conclusion that the proposed disposal cell will have only a negligible impact on groundwater quality, there is no justification for incurring the expense of disposing of the mill tailings at another site where the impact on groundwater might be less.

10 C.F.R. PART 40, APPENDIX A: NATURE OF ANALYSES SUPPORTING PREDICTIONS

Analyses of disposal cell behavior must have an appropriate degree of conservatism. They should permit realistic predictions of the impact of the proposed disposal cell which, to the extent they err, overstate that impact. However, they should not be so conservative as to be misleading, overstating that impact to the extent of calling the feasibility of the proposed cell into question.

INITIAL DECISION **(Ruling on All Remaining Issues)**

INTRODUCTION

Kerr-McGee seeks an amendment to its license for the West Chicago Rare Earths Facility that would authorize Kerr-McGee to permanently stabilize wastes arising from that facility's operations in an onsite disposal cell.

Operations at the facility were commenced in 1932 by the Lindsay Light and Chemical Company. The Lindsay Company was merged into The American Potash & Chemical Company in 1958, and American Potash merged into Kerr-McGee in 1967. In 1973, Kerr-McGee closed the West Chicago facility, and no production operations have been conducted at the facility since that time.

The facility produced rare earth compounds and thorium. Kerr-McGee believes that the waste remaining at the site following operations is section 11e(2) byproduct material.¹ 42 U.S.C. § 2014(e)(2) (1982). Roughly 376,400 cubic meters of materials at the facility or in the West Chicago environs must be stabilized. Staff points out that of this amount, 81,900 cubic meters is considered source material and may be the responsibility of the State of Illinois, citing CLI-88-6, 28 NRC 75 (1988).² Illinois points out that some of the waste at the facility and in the West Chicago environs is the subject of a proceeding now before the U.S. Court of Appeals for the District of Columbia Circuit and that, as a result, that waste may be classified either as § 11(e)(2) byproduct material or as source material.³

Kerr-McGee submitted a Stabilization Plan in support of its license amendment application in 1979. In 1986, Kerr-McGee submitted a twelve-volume Engineering Report.⁴ The Engineering Report, which fills twenty binders, provides detailed information about the West Chicago site, and the design and performance of the proposed disposal cell. Kerr-McGee's application is being processed under Title II of the Uranium Mill Tailings and Radiation Control Act of 1978.

The NRC Staff issued a Final Environmental Statement ("FES") relating to the Kerr-McGee application in 1983.⁵ In the FES, Staff concluded that onsite storage for a period of years, rather than permanent disposal, was appropriate and should be approved.

Illinois requested a hearing on Kerr-McGee's application and Staff's proposed action on it set forth in the FES. Illinois argued that the issue of permanent onsite disposal must be considered and rejected.

In response to Illinois' argument, we required Staff to consider whether permanent onsite disposal should be authorized, circulate its conclusions for public comment, and prepare a Supplemental Final Environmental Statement

¹ Kerr-McGee's Proposed Findings, ¶ 3.

² Staff's Proposed Findings, ¶ 3.

³ Illinois' Proposed Findings, ¶ 3.

⁴ Kerr-McGee Chemical Corp., *West Chicago Project Engineering Report* (April 1986) (hereinafter "Engineering Report").

⁵ NUREG-0904, "Final Environmental Statement Related to the Decommissioning of the Rare Earths Facility, West Chicago, Illinois" (May 1983).

("SFES")⁶ which considered that issue. LBP-84-42, 20 NRC 1296 (1984), *reconsideration denied*, LBP-85-3, 21 NRC 244 (1985).

Illinois, the City of West Chicago ("City"), and others commented. SFES, Appendix H. After considering the comments, Staff found in the SFES that the Kerr-McGee proposal is the "preferred course of action" with regard to the stabilization of the wastes arising from facility operations. SFES at 1-20.

After its issuance, the parties were afforded an opportunity to submit additional contentions based on the SFES. Illinois submitted additional contentions outlining its continuing objections to the Kerr-McGee plan. Many of these were admitted⁷ and considered by us, either in our earlier ruling on Kerr-McGee's and Illinois' motions for summary disposition,⁸ or in this Initial Decision.

Following the admission of the contentions, Staff advised us of a then-pending U.S. Environmental Protection Agency review of the SFES. Illinois subsequently advised us of certain specific EPA concerns. On August 24, 1989, we issued a Memorandum and Order calling for the parties to address five questions concerning the impact of this review. These questions sought the parties' views as to how EPA's concerns might impact the admitted contentions and, in the event they did impact the contentions, how those concerns should be taken into account. We also sought briefing on the extent of EPA's jurisdiction over Kerr-McGee's application, whether any EPA approvals are needed before the Staff's preferred alternative could be implemented, and whether NRC is subject to the provisions of 40 C.F.R. Part 1504, related to the resolution of interagency disagreements.

Illinois found a nexus between most of the EPA concerns and its own admitted contentions while the Staff and Applicant find the relationship remote. However, Staff and Applicant argue that none of EPA's concerns have a direct impact on the case unless the Board wishes to adopt them as issues to be addressed by all parties. Similarly, Illinois finds no direct impact but suggests amending its contentions to encompass EPA concerns or having the board adopt the concerns as its contentions.⁹

⁶ NUREG-0904, Supp. No. 1, "Supplement to the Final Environmental Statement Related to the Decommissioning of the Rare Earths Facility, West Chicago, Illinois" (April 1989).

⁷ See LBP-89-16, 29 NRC 508 (1989).

⁸ See LBP-89-35, 30 NRC 677 (1989).

⁹ Illinois states that EPA has regulatory authority to review the proposed action under section 309 of the Clean Air Act, 42 U.S.C. § 7609. However, Staff asserts that EPA permitted its time for bringing its Clean Air Act concerns to CEQ under 40 C.F.R. Part 1504 to expire so that the impact of a differing agency opinion is not an issue.

Kerr-McGee states that no approvals or permits for this project are required from EPA and no applications have been submitted to EPA. Staff agrees that no EPA permits are required. Illinois asserts that permits are required under the Clean Air Act because the proposed action constitutes a modification of an existing source of a hazardous air pollutant. The State also asserts that an NPDES permit is required but concedes that this is issued by the Illinois Environmental Protection Agency. EPA did not assert jurisdiction over any permits in its comments on the SFES.

We conclude that EPA's concerns constitute comments on the SFES which have no direct impact on the admitted contentions. Accordingly these concerns need not be considered in this proceeding.

In proffering its new contentions, Illinois represented that many of them could be decided on briefs. As a result, we directed Illinois to move for summary disposition on those contentions which we had admitted, or indicate why it could not do so.¹⁰ On July 31, Illinois filed a motion for summary disposition of most of its newly admitted contentions. Then, on August 22, Kerr-McGee also filed a motion seeking summary disposition of all of Illinois' newly admitted contentions, as well as many of its previously admitted contentions, omitting only some portions of Contention 2. In LBP-89-35, *supra*, we resolved all of the contentions that were the subject of those motions in Kerr-McGee's favor save two, Contentions 4(a) and 3(g)(2).¹¹ These two contentions were the subject of a hearing held in Chicago, Illinois, on December 14 and 15, 1989. In this Initial Decision, we resolve those issues in Kerr-McGee's favor.

On December 22, 1989, Kerr-McGee moved for summary disposition of those portions of Contention 2 that remained to be resolved. In this Initial Decision, we also resolve this motion in Kerr-McGee's favor. That action disposes of the last of the admitted contentions in this proceeding. Consequently, we direct Staff to issue a license amendment permitting onsite disposal of the West Chicago mill tailings.

THE HEARING ON CONTENTIONS 4(a) AND 3(g)(2)

Background

These two contentions were the subject of an unpublished Memorandum and Order of November 14, 1989. In it, we denied the motions for summary disposition on Contentions 4(a) and 3(g)(2) and required the parties to prepare and submit testimony concerning certain limited issues relating to the impacts of Kerr-McGee's proposed disposal cell on groundwater.¹² While we fully set forth our reasoning for the denial of the motion for summary disposition of Contention 3(g)(2) in the November 14 Memorandum and Order, we indicated that we would give our reasoning with respect to Contention 4(a) following the hearing on those limited issues. We do so here.

¹⁰ See LBP-89-16, 29 NRC at 515.

¹¹ In one instance, concerning Contention 4(f), we agreed with Illinois that Criterion 7A of 10 C.F.R. Part 40, Appendix A, requires that Kerr-McGee install a so-called detection monitoring system when the tailings are placed in the disposal cell. See LBP-89-35, 30 NRC at 691-92. However, this ruling does not challenge the acceptability under Appendix A of Kerr-McGee's proposal and thus does not stand as a barrier to the grant of the license amendment Kerr-McGee seeks.

¹² We added two issues to be so addressed in an unpublished Memorandum and Order of November 20.

Contention 4(a) asserts that Staff has misapplied Criterion 1, which states that the general goal of siting and design decisions is permanent isolation by minimizing dispersion by natural forces without the need for ongoing maintenance. This criterion mandates that remoteness from populated areas, natural conditions that contribute to the isolation of the tailings from groundwater, and the potential for minimizing dispersion by erosion be considered in judging alternative and existing sites. This contention goes to the heart of the ultimate issue to be decided: Is the West Chicago site acceptable for the disposal of the tailings? We begin our consideration with a review of the positions of the parties on the proper interpretation of Criterion 1 of Appendix A to 10 C.F.R. Part 40.

Goal of Criterion 1 to Part 40, Appendix A

Criterion 1 begins with the statement that:

The general goal or broad objective in siting and design decisions is permanent isolation of tailings and associated contaminants by minimizing disturbance and dispersion by natural forces, and to do so without ongoing maintenance.

Criterion 1 requires that, in either selecting among alternate sites or in judging existing sites, consideration must be given to the remoteness of the sites from populated areas, hydrologic conditions that will contribute to the isolation of contaminants from groundwater, and the sites' potential for minimizing erosion, disturbance, and dispersion by natural forces over the long term. This criterion requires the optimization of these factors to the maximum extent reasonably achievable. The criterion also states that isolation is to be given primary emphasis, not short-term considerations such as economics, and that siting considerations should be emphasized rather than engineering. It closes with the admonition that active maintenance must not be necessary.

Illinois Motion for Summary Disposition

In its motion for summary disposition, Illinois focuses primarily on Staff's approval of Kerr-McGee's proposal despite its recognition that the proposal conflicts with Criterion 1.¹³ Illinois notes that Staff justifies its position as follows:

¹³ Staff opposes Illinois' motion on two grounds. First, that Illinois has provided no support for the assertion in its supporting affidavit that human intrusion is more likely to occur at the West Chicago site than at a more remote site, and second, that Staff's supporting affidavit demonstrates that the contention is factually inaccurate in stating that Staff declared Criterion 1 to be inapplicable. See Staff's Opposition of August 22, 1989, at 14.

The West Chicago site does not meet the general goals contained in Criterion 1 because the site is not remote from populated areas and it does not possess hydrologic or other natural conditions that would provide isolation of contaminants from the groundwater. These objectives apply to the siting of a new facility but do not apply as strictly to existing sites. An alternative will be acceptable if it achieves a level of stabilization and containment at a site and a level of protection for public health and safety and the environment that, to the extent practicable, is equivalent to or more stringent than the level that would be achieved by strict compliance with all the criteria. The NRC staff believes that this level is met for the Proposed Action. The fact that the Proposed Action does not strictly conform to Criterion 1 does not disqualify the site for disposal. The Proposed Action conforms to all technical criteria and will achieve a level of protection for public health and safety and the environment that meets the intent of the criteria.

SFES at 2-24.

Illinois maintains that this justification is illogical and contrary to both the letter and intent of the Commission's regulations. It begins its argument by taking issue with the statement that the objectives in Criterion 1 apply to the siting of a new facility but "do not apply as strictly to existing sites." Illinois correctly points out that Criterion 1 expressly provides that remoteness from populated areas and hydrologic conditions "must be considered in selecting among alternative tailings disposal sites or judging the adequacy of existing tailings sites." From its reading of Criterion 1 and the statement of considerations that accompanied its promulgation in 1980,¹⁴ Illinois concludes that the Commission intended that, while it will not always be possible to provide all of the site features that contribute to the general goals of Criterion 1, the site-selection process should result in an optimization of these features. Illinois maintains that the Commission clearly intended that Criterion 1 should not be ignored by selecting a site, such as the West Chicago site, which fails to optimize any of the three specified features.¹⁵

Illinois takes issue with Staff's position that:

An alternative will be acceptable if it achieves a level of stabilization and containment at a site and a level of protection for public health and safety and the environment that, to the extent practicable, is equivalent to or more stringent than the level that would be achieved by strict compliance with all the criteria.

SFES at 2-24. Illinois notes that this position is based on the statement in the introduction to Appendix A which provides applicants and licensees flexibility to propose "alternatives to specific requirements in this Appendix" provided

¹⁴ Uranium Mill Licensing Requirements, 45 Fed. Reg. 65,521-38 (Oct. 3, 1980).

¹⁵ The third feature specified in Criterion 1, in addition to remoteness from population and hydrologic conditions, is the potential to minimize erosion. We have found Kerr-McGee's proposal acceptable on this ground. See LBP-89-35, 30 NRC at 686-89; unpublished Memorandum and Order of February 13 denying Illinois' motion for reconsideration.

those alternatives "achieve a level of stabilization and containment of the sites concerned . . . which is equivalent to, to the extent practicable, or more stringent than the level which would be achieved by the requirements of the Appendix" Illinois believes that Staff's reliance on this statement for its conclusion that the Kerr-McGee's proposal is acceptable is improper for two reasons.

First, Illinois points out that the language of the Introduction allows for "alternatives to specific requirements." Because the Commission believed that too much specificity in Criterion 1 would have been imprudent,¹⁶ Criterion 1, unlike other criteria, does not contain "specific requirements." Thus Illinois argues that the flexibility to propose alternatives to specific requirements does not allow for an alternative that does not meet the general goals of Criterion 1.

Second, Illinois points out that the language, on its face, does not support the NRC Staff's conclusion. For the Commission to approve alternatives to the specific requirements, the alternatives must achieve a level of stabilization and containment that is equivalent to that which would result from the specific requirements. Illinois maintains that, compared with the four alternatives postulated in the SFES, the Proposed Action is the only one under which the radionuclides from the wastes will not be contained within disposal site boundaries for 1000 years. Illinois cites the SFES at E-15, Table E-6, for this proposition.

Illinois expresses puzzlement with Staff's statement that:

The fact that the Proposed Action does not strictly conform to Criterion 1 does not disqualify the site for disposal. The Proposed Action conforms to all the technical criteria and will achieve a level of protection for public health and safety and the environment that meets the intent of the criteria.

SFES at 2-24. Illinois believes that Staff has confused compliance with the goal in Criterion 1 (permanent isolation of the wastes) with compliance with all of the requirements that contribute to the achieving of that goal. Moreover, Illinois views Staff's statement that the proposal "conforms to all technical criteria" as obviously incorrect and flatly inconsistent with other statements in the SFES.

Because of the inexactness of predictions 1000 years into the future, Illinois believes that the Commission did not adopt mill tailings regulations that would make approval of a disposal option dependent on dose rates or excess cancer deaths. Rather, the Commission adopted the criteria in Appendix A to 10 C.F.R. Part 40. Illinois submits that Criterion 1 is the most fundamental of the criteria, and that many of the other criteria (e.g., Criteria 3, 10, 11, 12) are actually corollaries of Criterion 1. Criterion 1, in Illinois' view, reflects

¹⁶45 Fed. Reg. 65,524.

the Commission's general concern for conservatism in the use and disposal of radioactive materials. It points to a statement made in promulgating Appendix A that "the problem of tailings disposal cannot be approached with the attitude that inadequate siting features can be compensated for by design,"¹⁷ and notes that, if inadequate siting features cannot be compensated for by design, surely they cannot be compensated for by ignoring them.

Illinois asserts that the Kerr-McGee proposal is deficient under Criterion 1 because it does not give "primary emphasis" to the site-selection process to achieve isolation of the wastes. In support of this assertion, Illinois cites Staff's conclusions that the West Chicago site is not remote from population areas and does not possess hydrologic or other natural conditions that would provide isolation of contaminants from the groundwater.¹⁸ Illinois believes that Staff completely reversed the priorities to be given to permanent isolation of the wastes on the one hand and consideration of short-term convenience or benefits (such as minimization of transportation costs) on the other hand. Finally, Illinois asserts that the proposal is inconsistent with Criterion 1 because under it the tailings would be disposed of in such a manner so as to require active maintenance to ensure their continued isolation over the years.

Kerr-McGee's Response and Cross-Motion for Summary Disposition

While it does not quarrel with Illinois' characterization of the West Chicago site, Kerr-McGee argues that the legislative history and judicial interpretation of the criteria, and, in particular, Criterion 1, support Staff's position. Kerr-McGee makes three basic points.

First, Kerr-McGee points to the requirement for cost-benefit balancing contained in section 84(a)(1) of the Atomic Energy Act, 42 U.S.C. § 2114(a)(1), which obligates NRC in its management of tailings to:

tak[e] into account the risk to the public health, safety, and the environment with due consideration of the economic costs and such other factors as the Commission determines to be appropriate.¹⁹

Kerr-McGee argues that NRC is thus obligated to ensure that the disposal of mill tailings is guided by a balancing of costs and benefits, an obligation that it

¹⁷ *Id.*

¹⁸ See SFES at 2-24, 4-23.

¹⁹ This requirement was added to § 84(a)(1) by NRC Authorization Act, Pub. L. No. 97-415, § 22(s), 96 Stat. 2067, 2080 (1983). The Conference Report explained that this provision was intended to ensure "that the economic and environmental costs associated with the standards and requirements established . . . bear a reasonable relationship to the benefits expected to be derived." H.R. Conf. Rep. No. 884, 97th Cong., 2d Sess., 47, reprinted in 1982 *U.S. Code Cong. & Ad. News* 3603, 3617.

maintains was reiterated in *Quivira Mining Co. v. NRC*, 866 F.2d 1246, 1252 (10th Cir. 1989).

Second, Kerr-McGee points to the requirement that the criteria be applied flexibly, contained in § 84(c) of the Atomic Energy Act, 42 U.S.C. § 2114(c), which permits a licensee to propose alternatives to the specific requirements adopted by the NRC where:

such alternatives will achieve a level of stabilization and containment of the sites concerned, and a level of protection for public health, safety, and the environment from radiological and nonradiological hazards associated with such sites, which is equivalent to, to the extent practicable, or more stringent than the level which would be achieved by standards and requirements adopted and enforced by [EPA and NRC].²⁰

Third, Kerr-McGee points to the need in administering UMTRCA to distinguish between new and existing sites. Kerr-McGee believes that the legislative history of UMTRCA and the provisions of § 84 of the Atomic Energy Act discussed above support this view.²¹

Kerr-McGee points out that after Congress added these provisions to § 84 in 1983, the Commission amended the criteria. 50 Fed. Reg. 41,852 (1985). Kerr-McGee and others asserted in the course of that rulemaking that the NRC should make specific changes to reflect the obligation to balance costs and benefits. The Commission chose to meet this obligation on a case-by-case basis. It adopted new introductory language in Appendix A which provides:

All site-specific licensing decisions based on the criteria in this Appendix or alternatives proposed by licensees or applicants will take into account the risk to the public health and safety and the environment with due consideration to the economic costs involved and any other factors the Commission determines to be appropriate. In implementing this Appendix, the Commission will consider "practicable" and "reasonably achievable" as equivalent terms. Decisions involved [sic] these terms will take into account the state of technology, and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to the utilization of atomic energy in the public interest.

50 Fed. Reg. at 41,862. Kerr-McGee maintains that this language requires costs and benefits to be considered in site-specific licensing decisions.

Similarly, the Commission implemented the congressional directive to permit applicants and licensees to propose alternatives to the criteria by paraphrasing that directive in the Introduction to the criteria as follows:

²⁰ This was added by NRC Authorization Act, Pub. L. No. 97-415, § 20, 96 Stat. 2067, 2079 (1983).

²¹ See Kerr-McGee's Motion at 23.

Licensees or applicants may propose alternatives to the specific requirements in this Appendix. The alternative proposals may take into account local or regional conditions, including geology, topography, hydrology, and meteorology. The Commission may find that the proposed alternatives meet the Commission's requirements if the alternative will achieve a level of stabilization and containment of the sites concerned, and a level of protection for public health, safety, and the environment from radiological and nonradiological hazards associated with the sites, which is equivalent to, to the extent practicable, or more stringent than the level which would be achieved by the requirements of this Appendix and the standards promulgated by the Environmental Protection Agency in 40 C.F.R. part 192, Subparts D and E.²²

Kerr-McGee and various other companies sought judicial review of the NRC's actions in a proceeding before the Tenth Circuit. *Quivira Mining Co. v. NRC*, *supra*. Kerr-McGee asserts that, although the Tenth Circuit ultimately found that the NRC's efforts to balance costs and benefits in promulgating the criteria were sufficient to support the rule, it emphasized the NRC's assurance that it would also achieve such a balance in site-specific decisionmaking. *Id.* at 1254. Similarly, Kerr-McGee points out that, while the court provided for challenges to specific NRC licensing actions, it assumed that the Commission would implement the criteria in such a way as to provide for the flexibility mandated by Congress. *Id.* at 1259. And, with respect to the need to distinguish between new and existing sites, Kerr-McGee believes that the court relied on the Commission's assurances that it would treat new and existing sites differently in concluding that the flexibility provided in the Introduction to the criteria meets that need.

In sum, Kerr-McGee believes that:

the history surrounding the promulgation and amendment of the criteria shows that the NRC has a fundamental obligation to construe the criteria so as to achieve a reasonable relationship between costs and benefits. This obligation is particularly important in this case. The staff has established — and the State does not challenge — that the cost of onsite disposal is roughly \$40 million less than any of the offsite alternatives. The State thus must carry the burden of demonstrating that extraordinary benefits would accrue from construing the UMTRCA criteria so as to require offsite disposal. But, other than a minor challenge to the staff's assessment of radiological impacts, the State has not even presented a contention to challenge the staff's assessment of costs and benefits.²³

In the context of the above arguments, Kerr-McGee defends Staff's construction of Criterion 1.²⁴ First, Kerr-McGee points to the language of the criterion which states that it expresses a "general goal or broad objective." Because, in

²² 50 Fed. Reg. at 41,862.

²³ Kerr-McGee's Opposition to Illinois' Motion and Kerr-McGee's Cross-Motion for Summary Disposition at 19-20 (footnote omitted).

²⁴ Staff supports Kerr-McGee's cross-motion. See Staff's Response in Support, September 20, 1989 at 2.

Kerr-McGee's view, its proposal will be more protective of groundwater than any of the alternatives,²⁵ is not subject to erosion or intrusion,²⁶ and will not require active maintenance, Staff's conclusion that the criterion is satisfied cannot be seriously challenged.

Second, Kerr-McGee states that Illinois has ignored Congress' intent that the criteria be applied with due regard for the differences between new and existing sites, as well as the Commission's statement that it will recognize this difference.

Finally, Kerr-McGee notes that Illinois has not disputed that the costs of offsite disposal exceed those of onsite disposal and has not demonstrated that significant benefits would arise from offsite disposal. Thus, argues Kerr-McGee, even if its proposal is a departure from Criterion 1, it is a departure in keeping with the flexibility that Congress intended would guide the management of tailings.

Illinois' Response to Kerr-McGee's Cross-Motion

Illinois believes that the cornerstone of Kerr-McGee's argument is its position that a cost-benefit analysis is required in applying the Appendix A criteria. Illinois believes that Kerr-McGee would make industry cost the overriding consideration in judging whether the proposed action meets the criteria.

While it recognizes that the 1983 amendment to the Atomic Energy Act mandated that cost be considered, Illinois maintains that Kerr-McGee's interpretation runs afoul of congressional intent, case law, and public policy. Illinois cites H.R. Rep. No. 884, 97th Cong., 2d Sess. 471 (1982), for the proposition that Congress intended that its directive to consider costs should not "divert EPA and NRC from their principal focus on protecting public health and safety nor . . . require that the Agencies engage in cost benefit analysis or optimization." Illinois believes that *Quivira Mining, supra*, supports its view of Congress' intent. Illinois sums up its position as follows:

the linchpin to Kerr-McGee's arguments falls. Neither legislative intent nor case law dictates that costs are the determinative factor in this case. The NRC minimum compliance requirements, as embodied in Appendix A Criteria, have already considered costs as a factor. Kerr-McGee's self-serving extension of cost-benefit interpretation is not warranted. Indeed, as Congress has directed, the NRC and this Board must be mindful of its primary role — that of protecting the public health and safety and the environment.²⁷

Further, Illinois states that:

²⁵ Kerr-McGee cites SFES at 5-28 to 5-32, 8-7, Appendix E.

²⁶ Kerr-McGee cites *id.*, B-6 to B-11, H-123.

²⁷ Illinois' Opposition to Kerr-McGee's Cross-Motion for Summary Disposition at 8.

Kerr-McGee has ignored the express language of Criterion 1, has ignored the NRC staff's factual statements in the SFES about the West Chicago site, has misstated the NRC staff's findings about the failure of the West Chicago site to comply with specific provisions in Criterion 1, and has totally ignored the People's demonstration that the NRC staff has misinterpreted Criterion 1.²⁸

In support of this statement, Illinois points out that Kerr-McGee does not contest Staff's recognition in the SFES that the wastes would not be permanently isolated if Kerr-McGee's proposal is implemented. Indeed, Illinois notes that Kerr-McGee did not respond to the reference to this statement in the SFES. Illinois states that Kerr-McGee has ignored the site features identified in Criterion 1 — remoteness from population, hydrologic conditions, and the potential to minimize erosion or intrusion — which must be considered, as well as the admonition that, to the extent reasonably achievable, the site-selection process must be an optimization of these features.

Kerr-McGee to the contrary notwithstanding, Illinois asserts that it has never argued that Criterion 1 must be "rigidly" applied, either to new or existing sites. Rather, Illinois has recognized that it is not necessary that a disposal site have all of the features identified in Criterion 1. Rather, Criterion 1 states that the site-selection process must optimize these features. The West Chicago site has none of the features, and therefore optimizes none of them.

In responding to comments on the proposed criteria in 1980 that existing sites should be treated more leniently than new sites, the Commission stated that while some requirements can and must be met in all cases, objectives concerning remoteness from people, below-grade burial, and transferring ownership of sites "may not be met to the same degree at an existing site as at a new site."²⁹ In Illinois' view it is significant that the Commission did not indicate that new sites and existing sites should be evaluated differently for geological conditions. Illinois believes that there is no basis in Criterion 1 or its history to approve disposal at the West Chicago site when the geologic conditions at that site do not contribute to continued immobilization and isolation of contaminants from groundwater. It views Kerr-McGee's suggestion that geologic conditions in West Chicago are actually good for a waste disposal site as both creative and outrageous, and as highlighting a fundamental problem. The reason that the West Chicago site may be able to comply with regulatory concentration limits for contaminants is that there is such a great movement of groundwater to carry the contaminants off site:

According to the model results (Table E.7), peak concentrations in the groundwater in the 1,000-year period are predicted to be lower for most chemical species for the Proposed

²⁸ See Illinois Opposition at 30.

²⁹ See 45 Fed. Reg. 65,523.

Action than for Alternatives A-D. This is mainly due to the fact that the pore water velocity and diffusion coefficient for the groundwater are much higher at the West Chicago site than at the other disposal sites, which results in more diffusion and dilution of leach in the groundwater at the West Chicago site than at the other sites.

SFES at E-13 through E-14. Illinois asserts that Kerr-McGee may not argue that "dilution is the solution to pollution," and that Kerr-McGee has not even addressed the provision of Criterion 1 that requires that primary emphasis be placed on isolation of the tailings rather than minimization of transportation or land acquisition costs.

Analysis

Essentially, Kerr-McGee argues that we may look at cell performance and doses to arrive at the conclusion that the West Chicago site is acceptable under Criterion 1, while Illinois argues that we may not. Kerr-McGee correctly points out that the 1983 NRC Authorization Act amended § 84(a)(1) to require the Commission to take into account risks to public health and safety and the environment while giving due consideration to economics.³⁰ The Commission responded by inserting language in the Introduction to Appendix A which requires that all site-specific decisions take economics into account.³¹ This language goes on to state that in interpreting the terms "practicable" and "reasonably achievable" (which are to be considered equivalent), consideration must be given to, among other things, "the economics of improvements in relation to the benefits to the public health. . . ."

Illinois is correct in its observation that Criterion 1 requires consideration of remoteness from population and hydrologic factors in choosing among alternatives, as well as that it directs that the site-selection process should result in an optimization of these goals. Were this proceeding concerned with the siting of a new facility so that cost differences among potential sites were minor, Criterion 1 clearly would result in the disapproval of the West Chicago site because of its population density. But this proceeding concerns the disposal of an existing tailings pile located on the West Chicago site. Kerr-McGee correctly points out that, like it or not, we must deal with that site. We believe that the amendments to the Introduction to Appendix A, which require that consideration be given to economics in all siting decisions and permit applicants to propose

³⁰ Illinois points out that the House Conference Report accompanying this act stated that this provision was not to divert EPA or NRC from their primary tasks of protecting the public health and safety. See House Rep. No. 884, 97th Cong., 2d Sess. 47, reprinted in 1982 U.S. Code Cong. & Ad. News 3603, 3617.

³¹ See 50 Fed. Reg. at 41,855.

alternatives,³² require that we approach this case with due regard for the fact that West Chicago is an existing site. If those provisions were not in place, Illinois' position would be correct and it would be necessary to reject the West Chicago site at the outset.³³ The requirement to consider economics as well as alternatives means that West Chicago may be rejected only after consideration is given to the costs and benefits that would be incurred by moving the tailings to another site. Criterion 1, when read in conjunction with the Introduction to Appendix A, clearly requires this result. Criterion 1 requires optimization of its enumerated goals "to the maximum extent reasonably achievable. . . ." The Introduction to Appendix A directs that we interpret "to the maximum extent reasonably achievable" in light of the costs and potential benefits that would be achieved by moving the tailings to another site which would optimize those goals.³⁴

While Illinois' arguments concerning hydrology are somewhat varied, essentially they boil down to the proposition that the West Chicago site is the only site that will not isolate the tailings from groundwater. Staff recognizes and Kerr-McGee does not contest this proposition. Illinois believes that there is no basis in Criterion 1 or its history to approve disposal at the West Chicago site when the geologic conditions at that site do not contribute to continued immobilization and isolation of contaminants from groundwater.³⁵

Both Staff and Kerr-McGee take the position that the fact that the West Chicago site will not completely contain the tailings is not a problem. Given

³² Illinois' argument that because Criterion 1 does not contain specific requirements, one may not propose alternatives to it is incorrect. Illinois is correct that the Commission in amending Part 40 in 1980 stated that too much specificity in setting siting requirements was not good and thus refused to provide specific rules in Criterion 1. Illinois overlooks the fact that the Commission subsequently added the language that clearly contemplates a weighing of costs and potential benefits in seeking an optimization of the Criterion 1 goals. Thus Criterion 1 permits applicants to propose alternatives. For the same reason, Illinois' argument that we may not consider such things as dose rates or excess cancer deaths in judging Kerr-McGee's proposal against Appendix A must fail. Clearly, considering the economic costs and potential public health benefits of optimization of the Criterion 1 goals requires that we address such matters.

³³ Because of these provisions, we are not troubled by the *non sequitur* that Illinois finds in Staff's position that, despite the fact that the West Chicago site does not meet the goals enumerated in Criterion 1, it nonetheless is acceptable. See Illinois' October 2 Opposition to Staff's Response in Support of Kerr-McGee's Cross-Motion.

³⁴ This decision disposes of Contention 7. That contention relies on LBP-84-42, 20 NRC 1296, 1323 (1984), and LBP-85-3, 21 NRC 244, 255 n.16 (1985), for the proposition that Staff may not properly select the West Chicago site as the best of those considered under NEPA if that site does not meet the Appendix A criteria. This proposition is correct. However, Appendix A requires that the detriments of disposal at West Chicago must be weighed against the costs of moving to another site. This cost-benefit analysis may, independently of NEPA, dictate the selection of the West Chicago site. Contention 7 is dismissed as moot. Cf. LBP-89-35, *supra*, 30 NRC at 697.

Similarly, this decision provides the rationale for our disposition of Contentions 3(b)(i), 3(b)(ii), and 3(g)(1). These contentions assert that Staff improperly failed to apply uniform criteria to potential alternative sites and the West Chicago site. Kerr-McGee's Cross-Motion for Summary Disposition of these contentions was granted in LBP-89-35. See *id.* at 694, 696.

³⁵ Despite its interest in groundwater quality, Illinois did not file a contention challenging Kerr-McGee's compliance with Criterion 5 which sets specific water quality standards. We find this particularly interesting in light of Illinois' lengthy litigation with Kerr-McGee concerning the latter's compliance with Illinois' water quality standards.

that the site will not contain the wastes, we were troubled by the inconsistent hydrogeological analyses by Kerr-McGee and Staff, which predict quite disparate groundwater concentrations of some heavy metals and anions. This prevented our approval of Kerr-McGee's cross-motion.

In our unpublished November 14 Memorandum and Order, we noted that we must decide what degree of groundwater quality changes should be expected at the West Chicago site, including an understanding of the degree of confidence associated with any particular forecast. There, we stated that:

These predictions are a major element in this proceeding because they are essential in weighing the extent of the benefit which would be obtained by moving to another site against the cost of such a move. We find the SFES and the Kerr-McGee Engineering Report inconsistent in the respects enumerated below. The error bounds on the results of both Kerr-McGee's and Staff's analyses are apt to be large. While the results of Kerr-McGee's analyses are small enough to permit the conclusion that the West Chicago site is acceptable, we find that the analyses contained in the SFES are too close to the line between what is acceptable and what is not to permit us to approve the West Chicago site with an appropriate degree of confidence in the correctness of that result. These disparate results prevent our reaching a favorable conclusion on Kerr-McGee's cross-motion on Contention 4(a).

Consequently, we scheduled a hearing that was limited to certain issues that we enumerated. The hearing was held in Chicago on December 14 and 15, 1989.

Findings of Fact on Contention 4(a) Issues

Kerr-McGee submitted testimony by a panel consisting of Charles W. Fetter, Jr., James L. Grant, and John C. Stauter. Dr. Fetter is a professor in the Department of Geology at the University of Wisconsin Oshkosh; he is an expert in hydrogeology. Dr. Grant is President and Chief Executive Officer of James L. Grant & Associates, Inc., a consulting engineering firm; he has been extensively involved in the preparation of hydrogeological assessments. Dr. Stauter is the Director, Environmental Affairs, Kerr-McGee Corporation; he is an expert in a variety of chemical and sampling issues relating to the Kerr-McGee wastes.

Illinois submitted testimony by Dr. Don L. Warner. Dr. Warner is Dean of the School of Mines and Metallurgy at the University of Missouri-Rolla.³⁶ Dr. Warner is an expert in hydrology. He has been a consultant on many projects involving landfill disposal. Illinois also submitted the testimony of Dr. Gerald Thiers, but this testimony was stricken on motion of Kerr-McGee in which

³⁶ Kerr-McGee filed a motion to strike the testimony of Dr. Warner with respect to Contention 3(g)(2) which was granted. Tr. 488.

the Staff concurred.³⁷ Illinois also filed four motions at the beginning of the hearing.³⁸

The NRC Staff submitted testimony by various officials from Argonne National Laboratories who had assisted in the preparation of the SFES. The NRC witnesses were Dr. Paul Benioff, Dr. Charley Yu, and Dr. Jeffrey P. Schubert. Dr. Benioff is an environmental chemist and served as project manager in the preparation of the SFES. Dr. Yu is an environmental systems engineer/radiological analyst with responsibilities for developing pathways analysis computer codes and performing site-specific environmental impact assessments. Dr. Schubert serves as a Scientific Associate in the Environmental Research Division at Argonne and has engaged in a variety of the projects involving the assessment of the geochemical evolution and transport of contaminants in subsurface systems.

Both the Kerr-McGee and Staff witnesses were cross-examined by Illinois. We granted a request by the City of West Chicago that it be allowed to participate in the proceeding pursuant to 10 C.F.R. § 2.715(c) and directed that the City was to be added to the official service list.³⁹ Counsel representing the City attended depositions of witnesses and participated in the hearing. Counsel for the City also cross-examined both the Kerr-McGee and the NRC witnesses.

In our November 14 Memorandum and Order, we limited the issues to be explored at hearing. We posed specific questions with regard to the following subjects encompassed by Contention 4(a): (1) infiltration; (2) hydrogeologic properties; (3) fluoride concentrations; (4) groundwater flow; (5) recharge of the Silurian aquifer; and (6) groundwater usage.

In an unpublished Memorandum and Order of November 20, 1989, we requested testimony on two additional issues: (1) the estimation of leachate concentrations; and (2) the conclusion by the NRC Staff that cyanide might be present in the wastes.

Kerr-McGee and Staff Groundwater Models

Our orders did not open a general inquiry into the groundwater models used by Kerr-McGee and Staff. Despite this, Illinois filed Contention 10 two days

³⁷ See our unpublished Memorandum and Order of December 6, 1989.

³⁸ The first of these motions requested that we visit the West Chicago site; we denied it as moot in light of our previous site visits. Tr. 462-63. Similarly, we denied Illinois' motion to submit a new Contention 10 concerning the adequacy of the groundwater models employed by Kerr-McGee and Staff and its motion *in limine* which would have prevented Kerr-McGee from introducing evidence of any sampling and laboratory analyses conducted after November 20, 1989. The latter motion was denied without prejudice to Illinois conducting its own sampling and analyses for cyanide and advising us of the results by January 16, 1990. Tr. 488-89; unpublished order of December 20, 1989. Illinois did not avail itself of this opportunity. Finally, we denied Illinois' motion to strike the testimony of John Stauter on behalf of Kerr-McGee. Tr. 468.

³⁹ See our unpublished Memorandum and Order of September 5, 1989.

before the hearing, seeking to litigate the adequacy of Kerr-McGee's and Staff's groundwater models.⁴⁰ Specifically, that contention alleged that,

[i]n order to accurately model the vertical movement of chemical and/or radiological constituents through the disposal cell, the parties should have used a three dimensional, site specific model. Neither the NRC Staff model nor the Kerr-McGee model provides results upon which it can be concluded that groundwater in the Silurian Dolomite aquifer will be protected.⁴¹

Both Kerr-McGee and Staff objected to this contention. In part, we rejected it because, within the framework of the issues we had identified, Illinois was free to demonstrate that the models actually used were flawed. We observed that if Illinois did so, it would prevail regardless of the merits of a site-specific three-dimensional groundwater model.

In its proposed findings, Illinois has attempted to show that a three-dimensional groundwater model was necessary to accurately predict the effects that the Kerr-McGee proposal would have. While Illinois points to the advantages of a three-dimensional model, it totally failed to demonstrate that the models actually employed were flawed.

Although Kerr-McGee submitted general testimony on modeling, some of which went beyond the scope of our order, no motion to strike those portions was made, and all parties have addressed it in their proposed findings. We view this testimony as providing valuable background for the issues that we identified, and, in particular, for the issue of the degree of confidence to be placed in disparate groundwater analyses by Kerr-McGee and Staff. Consequently, we address it first.

a. Kerr-McGee Analyses

The Kerr-McGee model of impacts of the disposal cell consists of three elements: (1) estimation of infiltration through the cover; (2) estimation of leachate that would be generated by water passing through the wastes; and (3) prediction of the impact of leachate on groundwater quality at the site boundary. KM Exh. 2 at 4-5.

Kerr-McGee estimated infiltration through the cell cover by the use of a computer model, the Hydrologic Evaluation of Landfill Performance model ("HELP" model). The model was developed by the U.S. Army Corps of Engineers' Waterways Experiment Station for the U.S. Environmental Protection

⁴⁰ See note 38, *supra*. We also struck that portion of the testimony of Illinois' expert, Dr. Warner, which sought to raise the issue of three-dimensional groundwater models in connection with Contention 3(g)(2). See note 37, *supra*.

⁴¹ See Illinois' Motion for Leave to Submit Contention 10, December 12, 1989.

Agency. The model is well documented; it is often used to design landfill covers. *Id.* at 5-6.

Kerr-McGee performed groundwater modeling using a model developed by the U.S. Geological Survey. The model has been verified in the published literature and has been successfully employed in the evaluation of contaminant transport. It is known to be accurate in actual applications. *Id.* at 11-12.

The topmost aquifer at the site is the E stratum. That aquifer would be the first and most significantly affected stratum that could be impacted by leachate from the cell. Kerr-McGee estimated the potential post-closure impacts of the cell on water quality in the E stratum using the groundwater model. *Id.* at 4, 13.

The values of various parameters that enter the model were estimated from the data that had been collected at the site. Numerical values for transmissivity were adjusted by trial and error until the model results matched the observed potentiometric surface in the E stratum. The dispersivity factor was adjusted until model results for dissolved solids and sulfates were similar to the observed dispersion at the site. *Id.* at 12-13; Tr. 844-45 (Grant); Tr. 764 (Schubert).

The Kerr-McGee model was a two-dimensional model that allowed the observed variability in hydraulic properties at the site to be accommodated. KM Exh. 2 at 11-13, 25-26; *see* Tr. 733-39 (Schubert); Tr. 822-23 (Grant). The model does not specifically calculate vertical movement of leachate or mixing in the E stratum. Rather, it is assumed that leachate mixes instantaneously in the E stratum after emerging from the bottom of the waste cell. Tr. 543-45 (Fetter); Tr. 822 (Grant).

The Kerr-McGee model does not include the effects of retardation of solute movement through strata underlying the cell. Retardation of solute movement will occur in actuality and will delay impacts predicted by the model. At the best estimate of infiltration (0.1 inch per year), radium will not enter the groundwater system from the wastes for over 6000 years, and uranium will not enter the groundwater for 3000 years. KM Exh. 2 at 16, Appendix 5; *see also* Tr. 712, 752 (Schubert); Tr. 813 (Yu).

Dr. Warner, Illinois' expert, criticized the Kerr-McGee model because that model assumed instantaneous vertical mixing in the E stratum. Tr. 669-70 (Warner). Dr. Warner stated, however, that he did not know whether this assumption produced unrealistic modeling results. Tr. 670 (Warner).

The assumption of vertical mixing is a consequence of the fact that Kerr-McGee applied a two-dimensional groundwater model. The assumption of vertical mixing is reasonable because Kerr-McGee has verified that complete vertical mixing will occur within a short distance after the leachate reaches the top of the water table. Tr. 822-23 (Grant); Tr. 591 (Fetter); *see also* Tr. 543-46 (Grant, Fetter). In the modeled area the aquifer is from 5 to 30 feet thick, and the dimension of the source is nearly 1000 feet in the flow direction. Calculation

shows that complete vertical mixing will occur within about 25 feet from the point at which the leachate enters the groundwater system. The mixing is enhanced at the West Chicago site because the aquifer thins in the downgradient direction to about 5 feet at the site boundary, enhancing the mixing that will occur. Tr. 824-26, 828-32 (Grant); KM Exh. 3.

The modeling conducted by Kerr-McGee provides a characterization of the effects of the cell on the groundwater system. The model results show that the disposal cell will have negligible effects on groundwater. KM Exh. 2 at 16; *see* Tr. 620 (Grant); Tr. 621 (Fetter).

b. Staff Analyses

The NRC performed an independent assessment of the groundwater impacts of the Kerr-McGee proposal and of various alternative sites. It chose a model that would facilitate the comparison of alternative sites. Quantitative site comparison for the SFES was made difficult because of the lack of hydrological data at the alternative sites. The NRC groundwater model was simpler than the one used by Kerr-McGee but it permitted approximate conservative analyses to be made where detailed site-specific data were not available. The NRC Staff used the same model at all of the sites including West Chicago because of its judgment that differences among sites obtained under uniform methodology would reasonably reflect the relative properties of the sites even if fully accurate calculations could not be made at all of them. Although detailed hydrological data were available for the West Chicago site, Staff felt that a simplified approach was necessary and appropriate for its study of alternative sites including the West Chicago site. KM Exh. 2 at 17; Tr. 768-69 (Benioff).

The NRC used its simplified model to assess the suitability of the West Chicago site. The Staff could have used a more detailed groundwater model at the West Chicago site because data were available that would permit it to do so; however, it decided that such an analysis was unnecessary because the results from the simplified model using conservative assumptions showed that groundwater under the proposed cell would conform to regulatory limits. The simplified model was used to provide a bounding analysis rather than a realistic estimate of water quality beneath the cell. Because the model showed impacts on groundwater below regulatory limits with highly conservative assumptions, the Staff concluded that more detailed modeling was unnecessary. Tr. 691, 768-69, 772 (Benioff).

The NRC Staff applied a standard model — the AT123D model developed by the Oak Ridge National Laboratory — to estimate the impacts of the cell on groundwater. The model represents the application of an analytical solution to the groundwater flow equations. Although the model embodies certain simplifying assumptions, the NRC chose values for aquifer parameters that

would provide a conservative estimate of cell performance. KM Exh. 2 at 18, Table 6.

The Staff modified its model to account for the passage of leachate from the cell through the unsaturated zone above the groundwater system. The modification allows the estimation of retardation effects on solutes as they pass through the unsaturated zone. KM Exh. 2 at 39-40.

Staff approached its modeling in an entirely different fashion from Kerr-McGee. Staff's effort was a bounding or worst-case assessment, while Kerr-McGee's effort was a more detailed attempt to obtain a realistic assessment. Both independent approaches reach the same conclusion that the impacts of the cell on groundwater will be small and within applicable regulatory limits. However, the differences in approach are helpful in explaining the apparent disparities in the results obtained by Kerr-McGee and Staff which concerned us.

The NRC model shows that with the exception of cyanide ion the Kerr-McGee proposed cell will satisfy IEPA general-use standards by wide margins at both the site boundary and the edge of the wastes. SFES at E-15, E-16.⁴²

Dr. Warner, Illinois' expert, agreed that the NRC groundwater model represented an appropriate mathematical solution to the equations governing groundwater flow. Tr. 663 (Warner). However, Dr. Warner thought that the NRC model had been unrealistically applied at the West Chicago site so that leachate was introduced into the groundwater by the lowering of a single block of contaminants into the groundwater system, rather than allowing the continuing leaching of contaminants into the groundwater system over a period of time. Tr. 662, 666 (Warner).

Dr. Warner's observations as to how contaminants were introduced to the groundwater system in the NRC modeling were incorrect. The NRC model used a three-dimensional model that did not rely on an assumption of instantaneous vertical mixing in the E stratum. Rather, it calculated the mixing that would occur as leachate entered the aquifer from above. Tr. 766, 810-11 (Yu); Tr. 843 (Grant). Moreover, the NRC model did not introduce the contaminants as a single slug, but allowed the continuing leaching of contaminants from the waste over a period of time. Tr. 843-44 (Grant).

Dr. Warner also thought the NRC model was unrealistic in that it allowed a uniform release of leachate from all parts of the cell, whereas in reality more concentrated leachate might be released from certain parts of the cell. Tr. 662 (Warner). Although the NRC model did assume the uniform release of leachate from all parts of the cell, this assumption is not unrealistic. Kerr-McGee analyzed the effect of the placement of different types of waste in the cell and

⁴² As appears *infra*, we do not accept Staff's finding on cyanide.

showed that the leachate from one part of the cell did not differ significantly from the leachate generated in other parts of the cell. KM Exh. 2 at 8-9. Moreover, the Kerr-McGee analysis showed that even if all the leachate were released from one point in the cell, the impacts on groundwater were not significantly affected. *Id.* at 15, Table 4 (Case 11).

Dr. Warner found the results of the NRC modeling to be physically unrealistic in that the model predicted extensive dilution of leachate at the downgradient edge of the waste. Tr. 665-66 (Warner).

The cell extends in the upgradient direction for nearly 1000 feet, and leachate is released to the aquifer over that entire length. A simple calculation using the actual aquifer dimensions shows that vertical mixing would be complete within about 25 feet of the point of release. Thus, less than 1% (in fact, 0.25%) of the leachate would be released within the mixing-zone distance of the downstream edge of the waste. The remainder of the leachate would be fully mixed with the groundwater well before it reaches the downstream boundary of the waste cell. Extensive dilution of leachate is to be expected at the downgradient edge of the waste. Tr. 829-32, 835-37 (Grant, Fetter).

Dr. Warner testified that the NRC model showed the same dilution at the edge of the waste as at the boundary of the site and that he found this to be physically unreasonable. Tr. 665 (Warner).

The NRC calculations show a slight dilution between the center of the downgradient edge of the waste and the center of the downgradient site boundary. Tr. 839 (Grant); KM Exh. 5. The dilution between the edge of the waste and the edge of the site would be slight because the downstream edge of the cell is close to the edge of the site. Peak concentrations would not be expected to diminish significantly at the edge of the site in these circumstances because there is little opportunity for dilution by water from beyond the edge of the waste cell. Tr. 839-40 (Grant).

We conclude that the NRC groundwater model was unrealistic in some respects but not as alleged by Illinois. Lack of realism in NRC modeling resulted from the exceptionally conservative approach to analysis that was adopted by the Staff. The Staff conclusions erred in the direction of overstating possible impacts by a wide and in some cases misleading margin.

Specific Issues Under Contention 4(a)

a. Infiltration

Our inquiry with regard to infiltration was as follows:

According to the Kerr-McGee Engineering Report, the estimate of cell infiltration is 0.025 cm per year. (Vol. II, p. 2-80). However, the solute transport analysis in the SFES assumes an

infiltration rate of 3 cm per year. (SFES, p. E10). We need to resolve this 100 fold difference in the estimated source strength in terms of a most probable value and its uncertainty.

The normal percolation through natural soils in the West Chicago area to the top-most aquifer, which is found in the E stratum, is about 3.7 inches per year. The HELP model shows that a waste cell cover built according to the Kerr-McGee design would allow infiltration of less than 0.001 inch per year. However, cell infiltration was calculated to be about 0.1 inch per year. KM Exh. 2 at 6-7, Table 1. Kerr-McGee made adjustments of the hydraulic conductivity of the topsoil layer to account for weathering and the effects of roots. This adjustment yielded an infiltration rate of roughly 0.1 inch per year (0.25 cm/yr). Kerr-McGee used an infiltration rate of 0.1 inch per year in its modeling as its conservative best estimate of infiltration. *Id.* at 7, 21.

Most of the groundwater in the E stratum at the site flows horizontally and discharges, after significant dilution, into Kress Creek. *Id.* at 34. Some minor amount of leachate released from the cell could move downward. Constituents in any downward migrating groundwater could be sorbed onto soils and, in any event, would be significantly diluted before reaching deeper aquifers. Impacts in deeper aquifers will be less than in the E stratum and insignificant in comparison. Tr. 571 (Grant); Tr. 610-11 (Fetter); Tr. 738-39, 747 (Schubert).

Kerr-McGee calibrated its groundwater model in order to ensure that the model accurately represents the behavior of groundwater at the site. Nonetheless, after model calibration was completed, the model was applied in a number of simulations of post-closure site behavior in which the sensitivity of the results to changes in parameters could be identified. KM Exh. 2 at 14-15, 25-28.

The calibrated model was used to estimate the post-closure impacts of the disposal cell. If the best estimates of infiltration and aquifer parameters are applied, the cell is shown to have negligible impacts on groundwater quality at the site boundary. *Id.* at 15. If significant variations of the assumed parameters are assumed — increasing infiltration by a factor of 50, assuming that the leachate has the properties of the maximum leachate, or reducing transmissivity by a factor of 10 — the IEPA general-use standards are still generally satisfied by wide margins. *Id.* at 15, Table 4.

The predicted infiltration is insensitive to increased rainfall after an infiltration of about 0.1 inch per year is achieved. This is because the amount of infiltration during wetter years is controlled by the low-permeability barriers in the cell cover, including in particular the 2-foot clay cap that forms the lowest layer of the cover. *Id.* at 24-25; Tr. 628-30 (Grant). The determination that the cell will yield infiltration of about 0.1 inch per year is therefore robust.

Kerr-McGee assessed the sensitivity of its estimate of infiltration by performing groundwater modeling with various assumed infiltration rates. The range of rates spanned from 0.01 inch per year to 5 inches per year. The upper

limit gave no credit for the effectiveness of the cover; it exceeds the regional average annual infiltration rate that Kerr-McGee gave of 3.7 inches per year.⁴³ Infiltration through a constructed cover like that proposed by Kerr-McGee would be less than the local average. Tr. 699-700 (Schubert); Tr. 710 (Yu). With assumed infiltration of 5 inches per year, the cell would have only a small impact on groundwater quality at the site boundary, and applicable water quality standards would not be violated. KM Exh. 2 at 22, Table 4 (Case 3).

The NRC used an infiltration into the cell of roughly 1.2 inches (3 cm) per year. The NRC estimate was not the result of computer modeling but was developed through a water-balance calculation. Infiltration was determined by subtracting estimates of evapotranspiration and surface runoff from annual precipitation. The NRC estimate reflects subjective consideration of possible changes in infiltration in the proposed cell as a function of time but does not rely quantitatively on properties of the layers overlying the waste cell. It is likely to be a high or worst-case estimate. Tr. 700-04 (Yu); Yu Testimony on Contention 4(a), ff. Tr. 688, at 2-3; Tr. 767-68 (Benioff).

Illinois' witness, Dr. Warner, had not performed any calculations of infiltration through the cell cover. He accepted that estimates calculated by Kerr-McGee from the HELP model were realistic based on the assumptions that were the input to the model. However, he challenged the assumption that the clay cap would retain its integrity and initial low infiltration rate over the life of the cell as assumed by Kerr-McGee. Tr. 647 (Warner).

Observations elsewhere show that engineered caps like that proposed by Kerr-McGee are effective in limiting infiltration. Tr. 704-05 (Yu); *see also* Tr. 717-18 (Benioff); Tr. 721 (Schubert).

Dr. Warner suggested that cracks might form in the clay cap over a sustained period of time and that infiltration rates through the cell might be much larger than estimated by Kerr-McGee. Mechanisms for cracking in the cap might be freezing and thawing, wetting and drying, and subsidence within the cell. He could not state with certainty that the cover proposed for the West Chicago site would fail to perform as predicted. His general experience suggested to him that such failure could occur. Tr. 647-56 (Warner).

Dr. Warner urged the Board to accept infiltration of 3.6 inches per year as a worst-case assessment of annual infiltration through the cell. This is the regional average infiltration and assumes that the cell cover will fail entirely to restrict infiltration because of the possible failure mechanisms listed by Dr. Warner. State Exh. 1 at 1.

Kerr-McGee's assessment of the impacts of 5 inches of infiltration exceeded Dr. Warner's recommendation for a worst-case assessment of infiltration. Tr. 648

⁴³ Staff gave an infiltration rate of 3.5 inches per year, while Illinois' expert, Dr. Warner, used 3.6 inches per year.

(Warner). Kerr-McGee's analysis showed that the prediction of small impacts to groundwater is not dependent on the effectiveness of the cell cover in limiting infiltration. KM Exh. 2 at 15, Table 4 (Case 3); Tr. 550 (Fetter).

Kerr-McGee has considered mechanisms of possible degradation of cell performance. The 2-foot clay layer at the base of the cover is protected from freezing and thawing and from wetting and drying by the overlying layers. The protection of the clay layer minimizes the likelihood that cracks might develop as a result of freezing and thawing or wetting and drying. Tr. 527 (Fetter); Tr. 612-13 (Grant).

Dr. Warner asserted that cracking of the clay cap might result from consolidation or compaction (subsidence) of underlying layers of the cell. The assertion was expressed as a physical possibility not as the result of an analytical process. Tr. 653-54. (Warner). Dr. Warner had not examined the analysis of consolidation presented in the Kerr-McGee Engineering Report. Tr. 669 (Warner).

Kerr-McGee considered the possibility of subsidence in its analysis of cell performance. Most subsidence would be expected in the early years after placement of the wastes. The final cap at the Kerr-McGee site will not be installed until several years after waste placement commences, to allow subsidence to occur. After the initial compaction period, the likelihood of cracking of the cap as a result of subsidence is small. Tr. 531 (Fetter); Tr. 614 (Grant); Tr. 722, 811-12 (Schubert).

The Board finds that the most likely infiltration rate for the Kerr-McGee waste disposal cell falls in the interval of 0.1 to 1.2 inches per year as proposed respectively by Kerr-McGee and Staff. Because the Staff deliberately chose values of parameters that would cause estimates of impacts to be overstated, the Board concludes that Kerr-McGee's estimate of infiltration rate is likely to be more realistic than the Staff's. In formulating their estimates, Kerr-McGee and Staff considered possible increases in permeability of the capping layers of the cell from roots and from subsidence. There is no genuine hazard of cap failure from freezing and thawing or wetting and drying of a deeply buried clay layer. The estimates of infiltration provided by applicant and Staff already include conservative assumptions as urged by Illinois. The Staff estimate of infiltration rate may have been unnecessarily conservative since it did not take account of the low conductivity of the clay layer.

The Board rejects Illinois' assertion that we should accept an infiltration rate of 3.6 inches per year because that rate is unnecessarily and unrealistically conservative. That rate requires the assumption that the cell cap will fail entirely to retard infiltration. Although we accept that cell cap performance could be degraded during its design life we find that Applicant and Staff have taken account of that possibility and that no basis exists for concluding that the cap will fail totally in its design function. Nevertheless, even under that assumption,

Kerr-McGee's sensitivity analyses show that Illinois' general-use standards for groundwater would not be exceeded.

The Board concludes that its concern for apparent disparity between Kerr-McGee and Staff concerning infiltration rates has been resolved. The range of estimate shows a variance of a factor of 10 — not 100 — and the analyses by Kerr-McGee show that its final conclusion of no impact on groundwater is not sensitive to the infiltration rate used in the model. A conclusion of small impact on groundwater therefore stands robustly against a broad range of possible uncertainty in infiltration rates into the cell.

b. Hydrologic Properties

We sought testimony concerning the following issue:

Both the SFES and the Engineering Report analyses are predicated on similar values for the hydraulic gradient and hydraulic conductivity of the E stratum groundwater zone. However, neither report clearly describes the uncertainty in these values. Moreover, neither report provides any insight as to the probable variations in the groundwater flow during the next several centuries, in response to periods of either wet or dry climatic episodes.

Kerr-McGee analyzed the potential effects of climatic fluctuations over a period of centuries, as well as the potential effects of residual uncertainties or variations in the hydraulic properties of the site. The results show that the cell poses no threat to groundwater even if there were changes in climate or significant alteration of the observed or predicted aquifer properties. KM Exh. 2 at 22-28.

The cover of the Kerr-McGee disposal cell is designed to minimize the amount of rainwater that can infiltrate below the zone of evapotranspiration. Kerr-McGee ran the HELP model to estimate infiltration based upon simulated weather conditions representative of the site area over a 100-year period. Although the average annual percolation through the disposal cell is about 0.1 inch, the maximum calculated infiltration through the cell was about 0.14 inch. During wet years the percolation through the cell is governed by the low-permeability barriers in the cell's cover. Climatic changes thus do not significantly change cell percolation because the capacity of the low-permeability barriers and the drainage layer in the cover will not be exceeded even by extreme climatic fluctuations. KM Exh. 2 at 24-24; Tr. 626-30 (Grant).

The Kerr-McGee simulations indicated that the predicted concentrations in the groundwater were sensitive to transmissivity. Smaller transmissivity resulted in larger concentrations of constituents in the aquifer. Simulations assuming an order-of-magnitude decrease in transmissivity were performed. It is highly improbable that actual transmissivity at the site would vary so

much. Nonetheless, even with this change, the cell does not seriously threaten groundwater quality. KM Exh. 2 at 26.

The hydraulic gradient was not varied during the Kerr-McGee or NRC simulations. Hydraulic gradient at the West Chicago site is governed largely by the geometry of the E stratum. Thus, the hydraulic gradient will not vary significantly because the physical circumstances do not permit significant variations. *Id.* at 26-27.

Dr. Warner criticized the NRC model for groundwater flow because the NRC model did not allow for the variability in the thickness and hydraulic conductivity of the E stratum at the site. State Exh. 1 at 1. The NRC chose values for parameters in the model that would provide a bounding or worst-case analysis of the site. Tr. 691, 768-69, 772 (Benioff). The Warner criticism is inapplicable to Kerr-McGee's modeling because the Kerr-McGee model incorporated variability in transmissivity. KM Exh. 2 at 25-28. (Transmissivity is defined as the product of thickness and hydraulic conductivity. Schubert Testimony on Contention 4(a), ff. Tr. 688, at 3.

The Board finds that infiltration through the cell is not a sensitive function of climate because percolation through the cell is governed by the low-permeability barriers and the drainage layer in the cover. There is therefore reasonable assurance that the cell will not have an adverse impact on groundwater quality because of possible climate change during its design life.

c. Fluoride Concentrations

We requested testimony on the following point:

Staff view that there has been no decrease in fluoride concentrations with time (SFES, p. 4-99 and figure 4.34) needs to be resolved with the Kerr-McGee Engineering Report, Volume II statement that fluoride concentrations are decreasing (p. 2.61).

Chemical analyses of groundwater samples permit a characterization of the major ion chemistry of groundwater at the site and its change over time. In general, a time-dependent decline is observed in the concentration of the major chemical species. The decline arises from the continuous removal of constituents by natural leaching processes. KM Exh. 2 at 28. As a result, these analyses sometimes provide a valuable indication of groundwater flow.

Fluoride observed in the glacial aquifer is presumably an artifact of hydrofluoric acid used in the ore-refining process at the facility. The hydrofluoric acid in the discharged waste waters underwent a chemical reaction in the soil to produce substances such as calcium fluoride and magnesium fluoride. Compared with other constituents, the fluoride compounds are relatively insoluble and thus are expected to leach from the soil more slowly. The decline in fluoride concen-

tration in groundwater should proceed more slowly than that observed with the other more soluble constituents. *Id.* at 29.

Staff's interpretations as to the absence of a decline in fluoride concentrations are based on the averaging of certain data (wells B-1 through B-5) and the plotting of the averages. Staff's statement appears to be based on a visual analysis which concluded that the average of the data appear to be generally constant (with the exception of the first two data points). SFES at 4-99, Fig. 4.34. If a linear regression is performed on the average (including the first two data points), the concentration of fluoride in fact does decline, and the downward trend is statistically significant. KM Exh. 2 at 30.

Kerr-McGee's interpretations as to the decline in fluoride concentration were based on a well-by-well analysis of fluoride concentrations. Declines are observed in all wells with the exception of B-1. The results of the statistical analysis show that the downward trend is statistically significant in wells, B-2, B-4, B-5, and B-7 and is statistically indeterminate for wells B-3 and B-6. *Id.* at 31, Table 8. Illinois offered no testimony with regard to fluoride concentrations.

Discrepancies in the interpretations of Staff and Kerr-McGee with regard to fluoride concentrations result from differences in the way the data were analyzed. Benioff Testimony on Contention 4(a), Issue 3, ff. Tr. 688, at 4; KM Exh. 2 at 29-30. Because of the formation of insoluble fluoride compounds in soils, fluoride concentrations in groundwater have no direct utility in characterizing groundwater flow. Thus whether the wells are showing constant or slowly declining fluoride concentrations has no bearing on resolution of Contention 4(a).

d. Groundwater Flow

We requested testimony on the following issue:

The reports do not describe what groundwater flow is indicated by the observed decrease with time in the sulfate[s] chloride and fluoride concentrations in the glacial drift strata.

In order to use the observed data on solute concentration to estimate groundwater flow, it is necessary to know the mass of the solute in the source and its rate of release. Because this information is not known at the West Chicago site, it is not possible to use the observed decline in concentrations as a tool to estimate groundwater flow. Benioff Testimony on Contention 4(a), Issue 4, ff. Tr. 688, at 2-3; KM Exh. 2 at 31-32.

Illinois offered no testimony with regard to the estimation of groundwater flow from the observed decrease in solute concentrations. The Board finds that there is no issue in controversy on this matter and that Staff's and Kerr-McGee's

answers resolve our uncertainty. The referenced solute concentrations have no bearing on estimation of groundwater flow or resolution of Contention 4(a).

e. Recharge of the Silurian Dolomite

We requested testimony on the following issue:

The SFES states that "about 38% of recharge water enters the Silurian" dolomite aquifer (p. 4-91). In contrast, the Engineering Report states that "only a very small percentage of the water entering the glacial aquifer from the surface finds its way to the dolomite aquifer." (Vol. I, p. 5). We need to understand the reasons for these discrepant statements.

There is no quantitative discrepancy between the SFES and the Engineering Report with regard to the estimate of water that recharges the glacial dolomite aquifer. Both the NRC and Kerr-McGee estimate the recharge in the general area to the Silurian dolomite to be about 1.33 inches per year. Moreover, both the NRC and Kerr-McGee estimate the recharge to the glacial aquifer in the general area to be about 3.7 inches per year. (The NRC estimates the recharge as 9 cm (3.5 inches) per year.) Thus, both NRC and Kerr-McGee agree that about 36% of the recharge to the glacial aquifer in the general area reaches the dolomite aquifer. KM Exh. 2 at 32-33.

The statement in the Engineering Report that "a very small percentage" of the water entering the glacial aquifer finds its way to the dolomite is a qualitative characterization of the data as to recharge that are presented in the Engineering Report. *Id.* at 33.

The recharge to the dolomite in the general area does not reflect the recharge to the dolomite from the surface of the West Chicago site. Groundwater in the E stratum under the site is flowing predominantly horizontally toward discharge into Kress Creek. Because the site is near Kress Creek, the horizontal component of flow is enhanced, as in the vicinity of any discharge point. The tendency to horizontal flow is accentuated at the West Chicago disposal site by the clay strata (B and D strata) which serve as a barrier to vertical flow. Thus, less than 36% of the water entering the glacial aquifer from the surface of the disposal site enters the dolomite. *Id.* at 33-34; Tr. 594-98, 618-19 (Grant, Fetter).

The Board's concern about recharge rates to the Silurian Dolomite has been resolved by Kerr-McGee's answer. There is no inconsistency between Kerr-McGee and Staff technical position on recharge rate of the aquifer. Illinois does not contest the rate accepted by Kerr-McGee. The Board finds that there will be no significant recharge of the Silurian Dolomite from waste water leaching from the proposed waste cell.

f. Groundwater Usage

We requested testimony concerning the following point:

The SFES states that 60 wells were identified within a 2 mile radius of the Kerr-McGee site (p. 4-91) but does not tell the reader how much water is being withdrawn nor is there any indication of the extent to which such withdrawal contributes to the movement of recharge surface waters down into the dolomite aquifer. Further, there is no discussion of possible and/or probable increases in the withdrawal and the resulting effects on the groundwater kinematics. As a matter of first impression, we take this issue to be quite consequential for both Staff and Kerr-McGee analyses (modelling).

The SFES states that there are sixty-four wells within a 3-kilometer radius of the Kerr-McGee site. Some fifty-two of these wells draw water from the Silurian dolomite aquifer, seven withdraw water from the deeper Cambrian-Ordovician aquifer, and four withdraw water from the Pleistocene sand-and-gravel aquifer. SFES at 4-91⁴⁴ ; KM Exh. 2 at 35.

The effects of these wells have been included in Kerr-McGee's modeling by the matching of the predicted potentiometric surface with the observed potentiometric surface in the process of model calibration. KM Exh. 2 at 35-36; *see also* Schubert Testimony on Contention 4(a), ff. Tr. 688, at 6).

The water in the E stratum at the disposal site is separated from the Silurian dolomite aquifer by two confining layers, the B stratum and the D stratum. The deeper Cambrian-Ordovician aquifer in West Chicago is further confined by the overlying Maquoketa shale. The E stratum is thus hydrologically separated from both the Silurian and the Cambrian-Ordovician aquifers. KM Exh. 2 at 36.

The isolation of the E stratum is demonstrated by the fact that the potentiometric surface of the E stratum is much higher than the potentiometric surface of the Silurian dolomite aquifer. Because the average head difference across the B-stratum aquitard is greater than unity, the Kerr-McGee experts testified that any additional pumping of the Silurian aquifer will have no impact upon downward movement of water from the E stratum. Thus, further pumping from new wells would have no impact on the results of groundwater modeling. *Id.* at 36-37; Tr. 600-04 (Fetter).

Illinois' expert, Dr. Warner, testified that further pumping of the Silurian might cause further downward leakage. He agreed with Kerr-McGee's experts, however, that there would be a limit on the amount of downward leakage as a result of hydraulic-gradient effects. Tr. 656-59 (Warner).

There are only four wells in the glacial drift aquifer within 3 kilometers of the Kerr-McGee site. All of these wells are private wells and are further than 1200 meters away from the Kerr-McGee site. FES at 4-64; Tr. 777-78 (Benioff). An

⁴⁴The SFES is inconsistent with regard to the total number of wells.

assessment of the wells shows that none of these wells has an effect on or is affected by the Kerr-McGee site. KM Exh. 2 at 37-38, Appendix 6.

Because of the limited yield of the glacial aquifer, the widespread and expected contamination of that aquifer from a multitude of sources in an urban area, and the available alternative sources of supply, it is highly improbable that the use of the glacial aquifer will grow. It is thus not reasonable to expect significant changes in pumping of the glacial-drift aquifer in the West Chicago area that would affect the modeling results. *Id.* at 38.⁴⁵

Regardless of future groundwater use, we find that increased pumping of groundwater from the Silurian dolomite off site would have no significant impact on the rate of infiltration of leachate from the waste cell because the E stratum is isolated from the Silurian Dolomite by intervening low-permeability strata.

g. Leachate

In our November 20 Memorandum and Order, we requested testimony from the parties which would clarify and explain the contrast between Kerr-McGee's and Staff's estimates of concentrations of cyanide and of the chemical constituents in leachate. We deal with leachate first.

In its Engineering Report, Kerr-McGee estimated the concentrations of constituents in leachate through laboratory measurements. The Kerr-McGee estimates were based on chemical extractions of waste material in a mildly acidic solution. The tests were done according to EPA toxicity specifications and were used to estimate the concentration of leachate that could be generated by each waste type (e.g., tailings, sludges, pond wastes). Acidic extraction would tend to overstate the concentration of constituents in leachate relative to that expected in rainwater leachate from the actual waste cell. KM Exh. 2 at 41; Tr. 632-33 (Stauter); Tr. 781-82 (Benioff).

Kerr-McGee also tested the effects of neutralization of the wastes and the effects of the relative volumes of liquid and waste in characterizing the leachate quality. KM Exh. 2 at 8.

Kerr-McGee considered the effects of waste placement during cell construction on the expected leachate. Guided by estimates of where the types of wastes would be placed, Kerr-McGee calculated the leachate concentration that would be produced in various portions of the cell. Because the variation of leachate

⁴⁵ Kerr-McGee's witness, Dr. Fetter, gathered some information to the effect that reliance on groundwater for water supply in general will decline in the area. According to Dr. Fetter's information, DuPage County is now constructing a pipeline to carry water from Lake Michigan to the county. When the pipeline is finished, many communities now using groundwater may switch to surface water. This change should serve to alleviate reliance on groundwater supply in the area and, if anything, reduce the possible impacts of the West Chicago disposal cell. KM Exh. 2 at 38. Although West Chicago is not now planning to switch to surface water supply, it may have the opportunity to apply for surface water supply in the future. Tr. 605 (Fetter).

quality across the cell proved not to be large, Kerr-McGee assumed that a uniform-quality leachate would be released from the cell. In its subsequent modeling, Kerr-McGee used a so-called "composite" leachate that was made up of the largest concentrations calculated for any portion of the cell. The composite leachate is a conservative estimate of leachate quality. *Id.* at 8-9.

In order to bound its analysis, Kerr-McGee also estimated a "maximum" leachate. The maximum leachate is the highest concentration of a constituent that was observed in the analysis of the various waste types (e.g., tailings, sludges, soils). The maximum leachate assumes that all the wastes yield concentrations at the level of the most leachable waste component. The maximum leachate highly overestimates leachate constituents expected for the actual cell. *Id.* at 9.

Kerr-McGee recently conducted further analyses to estimate the concentration of the leachate that might be generated by the wastes. A large number of samples were collected from the various waste materials at the site. A master composite of the samples was prepared in rough proportion to the amount of wastes of each type (e.g., tailings, sludges, soils) on the site. The leachate was generated by stirring a mixture consisting of 20% solids and 80% water while maintaining the slurry pH between 8 and 9 with reagent grade calcium hydroxide. The water used in the test had been drawn from the E stratum and represents the chemical properties of water that might percolate through the cover. The recent tests showed lower leachate concentrations than were given in the Engineering Report. The values for leachate concentrations in the Engineering Report overstate significantly the concentrations of constituents that would be released from the cell and thus the impacts of the cell on groundwater. *Id.* at 10-11; Tr. 632-38 (Grant, Stauter); Tr. 845-46 (Grant).

The NRC estimated leachate quality by calculating the concentration in leachate based on the concentration of a constituent in the waste. The calculation uses distribution coefficients drawn from the literature. The distribution coefficients given in the literature vary by orders of magnitude for each constituent. The NRC selected conservative values for each coefficient for the purpose of estimating concentrations of constituents in leachate. The technique served to overstate the concentrations in leachate relative to those that would be generated by actual wastes in the cell. KM Exh. 2 at 42-43; Tr. 784-87 (Benioff). The NRC concentrations for most constituents in leachate are about 10 to 100 times higher than the estimates made by Kerr-McGee. KM Exh. 2 at 43, Table 3. Illinois submitted no testimony with regard to the estimation of leachate concentration.

Because of the complicated chemistry associated with the dissolution process and the consequent difficulty in calculating leachate concentrations from simple equations, the actual measured values are likely to be more reliable than the values calculated by the NRC. *Id.* at 43; *see* Tr. 786-87 (Benioff). The NRC estimates were intended to provide a bounding or worst-case assessment of

leachate quality and not to predict leachate concentration accurately. Tr. 800-02 (Benioff).

We find that the NRC leachate values were unnecessarily conservative. Staff's intent was to produce a bounding analysis; however, the bounds it adopted deviated so far from realistic possibility as to be misleading. Staff declined to use Kerr-McGee's leachate values given in the Engineering Report because they might be unrealistically high by virtue of the weakly acidic extraction method used to obtain them. The Staff then performed its own analysis using distribution coefficients selected from the literature which gave even higher results than found by Kerr-McGee. The general concept of performing conservative analyses when data sets contain substantial uncertainty may well be valid. However, in this case the Staff pursued conservatism to the point of misleading the Board to pursue unfounded concerns.⁴⁶

The best estimate of leachate quality is provided by Kerr-McGee's recent leachate test. The determination of leachate quality was performed under circumstances that approximate the actual leaching process in the cell. Tr. 638 (Grant, Stauter); see Tr. 789-90, 814-16 (Benioff). The recent leachate test yields concentrations that in general are well below even the composite leachate defined by Kerr-McGee in its Engineering Report and used in the groundwater modeling. KM Exh. 2 at 10-11, 43, Table 2-3.

The recent leachate tests support a conclusion that the small impacts on groundwater quality appearing in the Engineering Report may be overstated. Actual impacts are likely to be less than Kerr-McGee has previously estimated.

The Board finds that Kerr-McGee's estimates of leachate water quality were obtained by reasonable methods and that the data are a reliable basis for assessing the impacts of the proposed waste cell on the groundwater of the West Chicago site.

h. Cyanide

As part of its waste characterization process, Kerr-McGee determined the concentrations of priority pollutants in the waste material at the West Chicago site. The concentrations of cyanide in the wastes were generally below the detection limits. However, a single sample from the pond 2 wastes had a reported cyanide concentration of 2.2 parts per million (ppm). The other sample from the pond 2 wastes had a concentration below the detection limit.

The Staff estimated the cyanide concentration in the pond 2 wastes by averaging the cyanide concentration in one sample of 2.2 ppm and in the other at

⁴⁶For example, for lead, to reject the Kerr-McGee leachate data as being unrealistically too high and then to pick a distribution coefficient that does not apply to the West Chicago materials and which produces a calculated value for lead in the leachate even higher than the Kerr-McGee experimental value defies logic.

the detection limit of 1 ppm. In its subsequent modeling, Staff further assumed that cyanide was present in all the wastes — not just the pond 2 wastes — at the resulting average level of 1.6 ppm. SFES at 2-14, Tables 2.5, E.1. Based on this assumption, the peak value of cyanide at the site boundary was found by the NRC to exceed the IEPA general-use standard. SFES at E-15. The Staff conclusion was based on a single positive result that was applied to the projected groundwater contamination attributable to the entire waste cell.

Cyanide was not used to process ore at the West Chicago facility, and none of the processes would be expected to produce cyanide as a by-product. KM Exh. 2 at 44-45. If significant quantities of cyanide are present in the wastes, cyanide should be seen in groundwater samples, but it was not. Sampling for cyanide conducted by Weston-Gulf Coast Laboratories, Inc. ("Weston"), on November 27 and 28, 1989, found no cyanide in the groundwater at the disposal site. The analyses had a detection limit of 0.010 milligrams per liter (mg/L). KM Exh. 1. The Weston data are consistent with data collected by Illinois in 1986 which showed no cyanide above the detection limit of 0.001 mg/L level in groundwater samples. SFES at 4-97. The absence of cyanide in the groundwater at West Chicago demonstrates that cyanide is also not present in the waste materials at the site. KM Exh. 2 at 45. Illinois submitted no testimony on this issue and did not avail itself of the opportunity that we afforded it to conduct its own analyses for cyanide and advise of the results.⁴⁷

The waste sample with a reported concentration of cyanide above the detection limit probably represents a laboratory reporting error. *Id.* at 44; *but see* Tr. 791-98 (Benioff). The Board concludes that Staff calculations in the SFES showing a possible short-term violation of Illinois water quality standards for cyanide were based on unreliable data and were unnecessarily conservative and misleading. Cyanide would be expected to undergo hydrolytic decomposition or biodegradation in the environment; however, the NRC Staff did not consider these effects in its modeling. Tr. 794 (Benioff).

Based on the preponderance of cyanide analyses, the Board finds that cyanide is not present above chemical detection limits in the waste material at West Chicago. If a waste cell were constructed as proposed, there would be no significant likelihood that Illinois water quality standards for cyanide would be exceeded even temporarily as asserted in the SFES.

Conclusion with Regard to Contention 4(a)

We find that Kerr-McGee's analyses have an appropriate degree of conservatism that permits us to make realistic predictions of the impact that its pro-

⁴⁷ See note 38, *supra*.

posed disposal cell will have on groundwater quality which, to the extent they err, overstate that impact. In contrast, Staff's analyses were so conservative as to be misleading, overstating the impact to the extent of calling the feasibility of Kerr-McGee's proposal into question. We conclude that it is reasonable to expect that Kerr-McGee's proposed cell will have only a negligible impact on groundwater quality, and that consequently no justification exists for incurring the expense of disposing of these mill tailings at another site. Kerr-McGee's proposal satisfies the requirements of 10 C.F.R. Part 40, Appendix A, Criterion 1; we resolve Contention 4(a) in Kerr-McGee's favor.

Findings of Fact on Contention 3(g)(2)

Contention 3(g)(2) states:

The evaluation of the alternative sites was not done on a standard evaluative basis and was otherwise improper in that

- (2) The modified solute transport analysis of the Proposed Action and Alternative D was not benchmarked.

In our November 14 Memorandum and Order, we noted that certain comments by the Illinois Department of Nuclear Safety on the SFES provide further explanation of the thrust of this contention:

The computer model used for the solute transport analysis was originally written for modeling saturated zone transport. SFES at 5-16. . . . The NRC Staff assumed that the West Chicago site and the Alternative D site would have an unsaturated zone directly beneath the disposal cell. The NRC Staff modified the computer program for unsaturated zone modeling. *Id.* No discussion of benchmarking of this program was provided in the SFES. IDNS submits that the modified computer model could not accurately model the Proposed Action and Alternative D sites.⁴⁸

We found that neither Staff's nor Kerr-McGee's affiants had validated the challenged equation by derivation from first principles or cited observational data that empirically confirm the equation. Moreover, we had some difficulty in reconciling Dr. Fetter's statement in his affidavit that such an equation "is typically used by professionals" with his statement that, for unsaturated flow, "the flow equations are nonlinear and not subject to easy solutions." (C.W. Fetter, Jr., *Applied Hydrogeology*, Merrill Pub. Co., 1980, at 89) Therefore, we found that a dispute of material fact existed and denied Kerr-McGee's motion.

⁴⁸ Illinois' Reply to Kerr-McGee's and Staff's Response to its Motion to Amend Contentions, Attach. A, at 5-6 (June 15, 1989).

Kerr-McGee has submitted a derivation of the challenged equation. The equation is shown to be readily derived from first principles. KM Exh. 2 at 39, Appendix 7.

Staff's modification of the computer code did not require any modification of the basic AT123D code. The modification introduced time dependence into the source term to reflect the fact that the dissolved constituents from the cell will have a delayed impact on groundwater. The effect of the modification is to permit estimation of the time at which the maximum concentration of a constituent will be observed in the groundwater. The calculation does not estimate the maximum concentration level that is predicted. The modification has no bearing on predicted groundwater quality or predicted performance of the waste cell during its design life. KM Exh. 2 at 40.

Illinois submitted no admissible testimony in support of its position on Contention 3(g)(2). Although Illinois raised the contention, Illinois made no effort to show that the modification of the AT123D code was inappropriate.

In light of Kerr-McGee's derivation of the equation from first principles and Staff's explanation, we find that the equation could accurately model the groundwater flow under the West Chicago site and alternative site D. Staff's use of a solute transport equation adds an apparent element of realism to its modelling by taking account of the effects of the unsaturated zone underlying these sites. Contention 3(g)(2) is resolved in Kerr-McGee's favor.

Kerr-McGee's Motion for Summary Disposition of the Remaining Contentions

On December 22, Kerr-McGee moved for summary disposition of the remaining contentions. These contentions were initially advanced in 1983 prior to the publication of Kerr-McGee's Engineering Report (April 1986) and the SFES (April 1989). Kerr-McGee believes that the matters raised by these contentions have been adequately addressed in the above documents, reflect a misunderstanding of Kerr-McGee's proposal, or are misguided. Illinois and Staff responded on January 19, 1990. On January 29, Kerr-McGee moved for leave to file a reply to Illinois, attaching its reply to its motion. That motion is granted.

Contention 2(a)(i)

This contention provides:

With respect to levels of inorganic containments [sic] in the onsite wastes, the applicant has conceded (Stabilization Plan 3.43) that because the sludge and tailings piles are nonhomogeneous, averaging the results of the samples does not yield numbers which are necessarily representative of the mass of the wastes. The applicant did, however, use averages

in calculating the concentrations of inorganic contaminants released from the disposal cell. In order to provide conservative and reliable estimates of dispersion and dilution effects, the applicant should base its calculation on the hot spots in the wastes.

Kerr-McGee maintains that this contention is misdirected for several reasons.⁴⁹ First, Kerr-McGee asserts that it has conducted exhaustive random sampling in order to accurately characterize the wastes at the West Chicago site.⁵⁰ Illinois disputes that the sampling was either "exhaustive" or "random." Illinois points out that, according to Kerr-McGee, the samples were "screened" prior to analysis and that it is not shown that this "screening" was proper.⁵¹ Illinois also notes that while Kerr-McGee conducted 906 EP Toxicity test, only 612 of those samples were used in the analysis of the wastes, and questions why not all tests were used. Kerr-McGee counters that it employed a "statistically based random sampling protocol prescribed by the EPA for characterizing sites containing hazardous waste," and notes that all samples from areas where disposal is known to have taken place were given EP Toxicity tests.⁵²

Illinois furnishes no citations to the Engineering Report in support of its claims but does discuss them in ¶¶ 4 and 5 of the Enno affidavit. Mr. Enno states that "Kerr-McGee has not demonstrated that it has not screened out the grossly contaminated samples thus leaving the less contaminated samples for the more detailed analysis."⁵³ However, a perusal of VIII Engineering Report 8-14 reveals that Kerr-McGee has indicated how the screening was conducted and what criteria were employed to determine whether further analysis was required. These criteria did not screen out the grossly contaminated samples. Mr. Enno also states that Kerr-McGee has reported the results of only 612 of 906 EP Toxicity tests. It appears that the 612 EP Toxicity test results referred to by Mr. Enno were performed on samples taken from locations where disposal is known to have taken place, not those that were tested as a result of the screening procedure, which Mr. Enno apparently has overlooked.⁵⁴ Mr. Enno alleges that

⁴⁹ Staff supports Kerr-McGee. See Staff's Response at 3.

⁵⁰ Kerr-McGee's Motion for Summary Disposition at 2-3. The procedures for the sampling and chemical analysis of the waste are reported in Volume VIII of the Engineering Report. VIII Eng. Rep. at 8-5 to 8-12, 8-14 to 8-16, 8-18 to 8-21; *id.*, Exh. 1. The sampling program was performed to conform with EPA procedures for the sampling of wastes. It was designed to ensure that a sufficient number of samples were collected so as to produce a statistically accurate characterization of the materials. To that end, some 330 boreholes were drilled at the site. The pattern of borehole placement and the selection of samples from each borehole were based on statistical techniques that are designed to provide a representative sampling. Chemical screening tests were then performed on over 1800 samples, including some 906 EP Toxicity Leach Tests, 234 infrared analyses, and numerous priority pollutant analyses. VIII Eng. Rep. 8-2, 8-6 to 8-15.

⁵¹ Illinois' Response at 3. Illinois relies on the affidavit of Thomas A. Enno, an environmental protection specialist at the Illinois Environmental Protection Agency, set out in Exhibit C to its response.

⁵² Kerr-McGee's Reply at 2.

⁵³ Illinois also relies on this argument in questioning Kerr-McGee's use of both a "composite" leachate and a "maximum" leachate to estimate groundwater impacts. Illinois' Response at 4.

⁵⁴ VIII Engineering Report at 8-14; *id.*, Exh. I, 2-1, 2-2, 2-6, Tables 2.6 through 2.13, 5-1, Appendix A.

Kerr-McGee has not taken sufficient samples from the tailings and sludge piles but offers no rationale for this position. Such an unsupported allegation provides an inadequate basis on which to question Kerr-McGee's sampling procedures.⁵⁵ We conclude that Illinois has not demonstrated that a genuine issue of material fact exists on these points and that Kerr-McGee is entitled to a favorable ruling on this contention.⁵⁶

Contention 2(a)(ii)

This contention provides

The applicant's dispersion model assumes uniform dispersion of leachate from the disposal cell and does not take into account the possibility of channelized flow. Given the historical experience concerning channelized flow at the Sheffield, Illinois low-level radioactive waste disposal site, and given the inhomogeneous character of the West Chicago Kerr-McGee site subsurface, the possibility and impact of channelized flow must be addressed.

Kerr-McGee relies on the affidavit of Charles W. Fetter, Jr., Concerning Contention 2(a)(ii),⁵⁷ for the proposition that the occurrence of channelized flow at the Sheffield disposal site has no bearing on the situation at West Chicago. Dr. Fetter states that groundwater at Sheffield is found in a pebbly-sand unit that is found in a channel in material of much lower hydraulic conductivity. The pebbly-sand channel principally defines groundwater drainage. Dr. Fetter points out that the geology at the West Chicago site is entirely different. There the water table is found in a sand-and-gravel layer, termed the E stratum, which exists under the entire disposal site, so that no subdrain effects like those seen at Sheffield are observed. Channelized flow simply does not exist at the West Chicago site in the aquifer that would be first and most significantly affected by the disposal cell.

Illinois does not dispute Dr. Fetter's statements. Rather, it points to similarities between the E stratum and the pebbly-sand channel at Sheffield.⁵⁸ Assuming that these similarities exist, they do not provide reason to believe that channelized flow exists at the West Chicago site. Kerr-McGee's motion is granted.

⁵⁵ Moreover, we are shocked at the general lack of foundation for Mr. Enno's allegations. One signing an affidavit should take care to ensure that there is some basis in fact for his allegations. Here that basis was totally lacking.

⁵⁶ Illinois also argues that, because of channelized flow, Kerr-McGee's claim that mixing or averaging of the wastes will eliminate site hazards must be disregarded. However, Illinois has failed to provide reason to believe that channelized flow exists at the West Chicago site. See our ruling on Contention 2(a)(ii), *infra*.

Mr. Enno also attacks Kerr-McGee's modelling of releases from the cell, although Illinois makes no such argument in its response. We find that Mr. Enno's arguments are, in any event, outside the scope of this contention which attacks the input into the model, not the model itself.

⁵⁷ Exhibit 2 to Kerr-McGee's Motion.

⁵⁸ See Exhibit C to Illinois' Response, Enno Affidavit, ¶ 11.

Contention 2(d)

This contention provides:

The applicant's proposed groundwater monitoring system is insufficient to detect the kind and quantity of contaminant migration. Among other things, the stabilization plan does not describe the methods for sample collection, preservation, analysis, and custody; the plan unhelpfully states only that "standard procedures will be followed for sampling and analysis." Plan, 7-3. Similarly, the plan does not describe how groundwater data obtained from the samples will be statistically analyzed; without proper statistical analysis, significant changes in groundwater quality can go undetected. (The plan states only that "Results will be examined for trends by a professional hydrologist." *Id.*) Nor does the plan specifically indicate the depths, locations, and screen lengths of monitoring wells; without this information the applicant cannot show that screen settings are related to the probable path contaminants would take as they migrated offsite. Nor is the number of wells certain.

Furthermore, the proposed system does not include analysis for organic waste constituents or indicators of organic waste constituents. Such analysis must be undertaken because residuals of organic solvents used in the industrial process may be present in leachate.

The applicant has not shown that it will install a background groundwater monitoring system capable of establishing the quality of groundwater which has not already been contaminated by leachate from the site. Groundwater contamination maps in the FES indicate that pollution originating at the Kerr-McGee site spreads offsite in all directions. Samples from improperly located background wells may yield water that has been contaminated by site pollutants rather than water that is representative of the general area.

The applicant does not propose to monitor groundwater for an adequate length of time following closure. Regulations under the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 *et seq.* ("RCRA"), require, in this case, post-closure monitoring for around 60 years. However, given the fact that the proposed disposal site is located above, and has already seriously degraded, the major groundwater source in the area, RCRA's monitoring requirements should be treated as a minimum only.

This contention principally attacks the adequacy of Kerr-McGee's groundwater monitoring plan which Kerr-McGee refutes with references to its Engineering Report, the SFES, and Exhibit 3 to its motion.⁵⁹ In its response, Illinois mounts an attack on specific aspects of the monitoring plan.⁶⁰ Specifically, Illinois raises the following points.

⁵⁹ Kerr-McGee's Motion for Summary Disposition at 9-10.

⁶⁰ Illinois' Response at 7-8 and Exhibit C at 7-10. Kerr-McGee answers these points in its Reply to Illinois' Response at 4-5.

First, Illinois offers the opinion of Mr. Enno that Kerr-McGee's monitoring program is inadequate for a sanitary landfill, let alone a hazardous waste site. We judge this conclusion in light of the specific shortcomings that Illinois alleges.

Second, Kerr-McGee proposes to use monitoring wells that are of questionable integrity as well as upgradient monitoring wells that will improperly sample groundwater which was previously contaminated by site operations. However, Illinois' reference in support of the assertion that the wells are of questionable integrity states that one well (B-5) was found to be constricted. Kerr-McGee points out that this well is in the center of the disposal site and consequently will not be used for monitoring.⁶¹ With regard to the sampling of contaminated upgradient groundwater, Kerr-McGee correctly points out that Criterion 5B requires the earliest practicable warning that the impoundment is leaking. As a consequence, it is necessary to compare samples taken from the groundwater immediately upgradient from the cell with those taken immediately downgradient. Comparing the latter samples with samples of uncontaminated groundwater could be misleading in that it could indicate cell leakage when none was occurring.

Third, the plan ignores contamination in the A and C strata as well as the fact that organic solvents were used in the manufacturing process. Kerr-McGee correctly points out that, under Criteria 7A and 5B, the proper focus of monitoring is the E stratum because it directly underlies the disposal cell and would be the first stratum affected by leakage. Moreover, Illinois' allegation that organic chemicals were used in the process is unsupported and counter to the information given in VIII Engineering Report at 8-21, and the SFES at 2-14 to 2-17, that no significant quantities of organic pollutants are present in the wastes. Kerr-McGee maintains that Illinois conceded as much when it withdrew Contention 2(b) related to organic chemicals.

Finally, Illinois asserts that the 10-year monitoring period proposed by Kerr-McGee is too short. The contention cites a 60-year monitoring period allegedly required under the Resource Conservation and Recovery Act, and Mr. Enno offers his opinion that the 10-year period proposed is too short, but provides no reasons. Kerr-McGee points out that there are no wastes that are regulated under RCRA which will be placed in the cell. Staff concurs. It points out that it has found the 10-year period adequate, and that, until Kerr-McGee's license is terminated, Kerr-McGee will be responsible for any monitoring.⁶²

Illinois has provided no basis to conclude that there are genuine disputes of material fact with respect to this contention; Kerr-McGee is entitled to a decision in its favor on it.

⁶¹ II Engineering Report at 2-50, Figs. 2-1B and 2-73.

⁶² Staff's Response at 5-6.

Contention 2(h)

This contention provides:

The decommissioning proposal does not include specific and adequate measures for excluding human beings from the site over the long-term. Given the 14-billion-year half-life of thorium, the NRC's acknowledgement that perpetual care of the site will be necessary, and the site's proximity to residences, commercial establishments, and public schools, discussion of such measures is crucial to evaluating the feasibility of onsite disposal.

Kerr-McGee maintains that Illinois' contention is unfounded, pointing out that the thickness of the cell cover, including the intrusion barrier, will make it unlikely that casual digging would proceed far enough to penetrate the wastes. Kerr-McGee also points out that we have already addressed the allegations of this contention.⁶³ Illinois relies on the affidavit of Dr. Gerald R. Thiers for the proposition that the cell will invite digging by humans which when combined with rain storms will result in a breach of the disposal cell.⁶⁴

In LBP-89-35, in ruling on Contentions 4(e) and 4(g), we found that "the site would [not] constitute an attractive nuisance, so as to make intrusion probable," and that there is no "credible basis for the proposition that the cell will not adequately resist . . . human intrusion."⁶⁵ We also found that the kind of damage postulated by Dr. Thiers could be repaired without violating the prohibition on active maintenance.⁶⁶ Illinois does not directly confront these findings, but repeats its previous arguments with one variation. Illinois now postulates that human intrusion when followed by the probable maximum precipitation (PMP) event will result in breach of the cell. However, in LBP-89-35 we ruled that it was not necessary to have considered the PMP event and have adhered to that ruling in denying Illinois' motion for reconsideration in our unpublished Memorandum and Order of today's date. Moreover, Illinois has offered no reason to question our previous conclusion that damage caused by such events can be repaired without active maintenance. Kerr-McGee's motion is granted.

Contention 2(1)

This contention provides:

⁶³ Kerr-McGee's Motion for Summary Disposition at 11-12. Staff concurs. See Staff's Response at 6.

⁶⁴ See Illinois' Response at 9-10 and Exh. A.

⁶⁵ See LBP-89-35, 30 NRC at 689-90, 701-02.

⁶⁶ *Id.* at 689, 690.

The applicant has not demonstrated that it will adequately control radioactive dust releases from both mobile and stationary sources during stabilization activities, or that the applicant's dust control measures will achieve NRC's ALARA requirement.

Kerr-McGee refers to volume IX of the Engineering Report which sets forth the dust control program that will be employed during stabilization activities,⁶⁷ and maintains that the program is more than adequate to deal with dust releases during the stabilization period. Kerr-McGee also points out that it has gained experience in controlling dust emission during the demolition activities at the West Chicago site, and provides an explanation of the control measures.⁶⁸

Illinois asserts that the assurances contained in the Engineering Report are so vague as to be meaningless, that there is no mention of complying with state opacity limits, and no indication of what criteria will govern the cessation of operations in windy conditions. Thus Illinois argues that there is no clear demonstration that Kerr-McGee will adequately control dust emissions during stabilization activities.⁶⁹ In its reply, Kerr-McGee notes that it will comply with the Commission's ALARA requirements and any applicable Illinois regulations. Staff notes that it will inspect to ensure compliance with Part 20.⁷⁰

Illinois is correct that the statements in the Engineering Report are vague. However, this does not provide a reason to deny the motion for summary disposition. Kerr-McGee points out that it is committed to meeting the requirements of Part 20 and any applicable Illinois regulation and that it has had considerable experience in dust suppression at the West Chicago site. Staff represents that it will ensure that the requirements of Part 20 are met. Under these circumstances, we do not believe that more detail is required. However, we condition our grant of summary disposition of this contention in Kerr-McGee's favor on the implementation of the mitigative measures specified in ¶ 5.9.4.1 of the SFES.

Contention 2(m)

This contention provides:

The applicant has not demonstrated that radiological air hazards will be adequately monitored after closure. Type and model of instrumentation, location of monitoring points, and frequency of reading or sample collection are not discussed. Because of the demographic setting of the proposed site, adequate post-closure radiological air monitoring for an appropriate time period must be carried out.

⁶⁷ See IX Eng. Rep. at 9-3, 9-18, 9-23 to 9-25.

⁶⁸ See Kerr-McGee's Motion for Summary Disposition at 12-13.

⁶⁹ See Illinois' Response at 11-12.

⁷⁰ See Kerr-McGee's Reply at 6-7; Staff's Response at 6-7.

In its motion, Kerr-McGee states that the applicable regulations establish a *design* standard, noting that it is required to design a cover that will limit radon flux to 20 pCi/m²s. 10 C.F.R. Part 40, Appendix A, Criterion 6 (1989); *see* 40 C.F.R. §§ 192.32(b)(1), 192.41 (1989). Kerr-McGee expects that the flux from the cell will be more than 50 times below the regulatory limit. XII Eng. Rep. at 12-4; *see also* SFES at 5-57. Kerr-McGee also points out that, although Criterion 6 explicitly does not require post-closure monitoring, it nonetheless plans to conduct post-closure radiological air monitoring.⁷¹

Illinois does not contest any of Kerr-McGee's assertions, but instead points to 40 C.F.R. Part 61, Subpart T, "National Emission Standards for Radon Emissions from the Disposal of Uranium Mill Tailings," which was published on December 15, 1989. Illinois points out that this subpart requires post-closure testing for radon emissions. Kerr-McGee counters that Subpart T does not apply to thorium mill tailings, and hence does not apply to the West Chicago site.⁷² Kerr-McGee's motion for summary disposition of this contention is granted.

Contention 2(o)

This contention provides:

The applicant has not demonstrated that the disposal onsite of 11,000 cubic feet of rare earth compounds will not harm the environment. The applicant must address the toxicity and mobility of these compounds as well as their potential effect on the clay liner.

In its motion, Kerr-McGee points out that it possesses some 1825 drums of rare-earth compounds resulting from facility operations which, if they cannot be otherwise disposed of, will be placed in the disposal cell. The total volume of the rare earth compounds is less than 1% of the total volume of wastes that are to be disposed of in the cell. The rare-earth compounds have a strong tendency to become sorbed onto soil particles, so that the releases of rare-earth compounds from the cell will be negligible. Moreover, the rare-earth compounds have an exceptionally low order of toxicity. Kerr-McGee relies on the affidavits of John C. Stauter and Edwin T. Still. Staff supports Kerr-McGee's factual assertions, relying on the affidavit of Dr. Paul A. Benioff. Illinois has not controverted these assertions.⁷³ Kerr-McGee's motion for summary disposition is granted.

⁷¹ Kerr-McGee's Motion for Summary Disposition at 13-15. Staff agrees with Kerr-McGee. *See* Staff's Response at 7.

⁷² Illinois' Response at 12-13; Kerr-McGee's Reply at 7.

⁷³ *See* Kerr-McGee's Motion for Summary Disposition at 15-16; Staff's Response at 7-8; Illinois' Response at 14.

Contention 2(q)

This contention provides:

Based on the calculations in the FES (Table 5.5), the applicant has not shown that during stabilization activities it will meet applicable radiological exposure and emission standards, because unjustifiable assumptions have been made which effectively minimize the calculated dose. Specifically:

(i) The FES assumes that the individual at the nearest residence will spend only 10 percent of his time outdoors. However, since the applicant's earth-moving activities are planned for the warm months, it is unlikely that individuals, especially children, will spend 10 percent of their time outdoors. Underestimation of outdoor time results in underestimation of dose received.

(ii) The FES assumes that radon and thoron will be uniformly released over eight weeks of earth-moving operations. To the contrary, releases will most likely occur as puffs of high concentrations when crusted waste materials are breached. The assumption of uniform release serves to minimize the calculation of dose received.

The contention states that the Staff assessed the radiological dose to the maximally exposed individual on the basis that the person would spend only 10% of his time outdoors. Kerr-McGee relies on the Affidavit of Douglas B. Chambers to demonstrate that the dose was calculated on the assumption that the maximally exposed individual is outdoors 100% of the time.⁷⁴

Kerr-McGee also relies on the Chambers Affidavit for the proposition that it is the cumulative exposure, rather than the peak exposure, that is relevant for purposes of assessing radiological impacts of radon and thoron, as well as for the factual assertion that earth moving will occur more or less continuously during the stabilization period so that uniform emissions of radon and thoron may accurately reflect the nature of releases from the site. Staff has furnished the affidavit of YuChien Yuan who performed the calculations and defends their conservatism.⁷⁵

In its response, Illinois steps outside of the allegations of the contention and alleges that the dose to the maximally exposed individual from waste-handling activities set out in Table 5.11 of the SFES is an annual rather than a committed dose.⁷⁶ This allegation overlooks the fact that the SFES states that, "[u]nless otherwise stated, the term 'dose' in this report represents the committed 50-year effective dose equivalent."⁷⁷ SFES, ¶ 5.9 at 5-43. Kerr-McGee is entitled to a favorable ruling on this contention.

⁷⁴ Kerr-McGee's Motion for Summary Disposition at 17-18, and Exh. 7. Staff concurs and has submitted the affidavit of YuChien Yuan who performed the calculations. *See* Staff's Response at 9.

⁷⁵ Kerr-McGee's Motion for Summary Disposition at 18-19; Staff's Response at 9.

⁷⁶ Illinois' Response at 14-16.

⁷⁷ Kerr-McGee's Reply at 8.

Contention 2(r)

This contention provides:

The applicant did not conduct any tests utilizing representative tailings solutions and representative clay materials to determine whether significant deterioration of permeability or stability properties will occur in the proposed clay liner. Indeed, the applicant has not yet decided what type of clay to use at the site, thus making such tests impossible.

Kerr-McGee asserts that Illinois' contention is completely misguided, pointing out that the disposal cell design does not rely on the clay liner for any long-term purpose. Moreover, Kerr-McGee points out that it has in fact conducted a test to determine the effect of continued exposure of the clay to leachate derived from the waste materials. The test results confirm that no significant deterioration of the permeability or stability of the clay liner will occur.⁷⁸ *Id.*, ¶¶ 5-9.

In its response, Illinois submits "that Kerr-McGee has failed to eliminate any real doubt as to whether exposure to the leachate from the wastes will result in the deterioration of the clay liner."⁷⁹ Illinois has failed to raise an issue for hearing. We are satisfied that summary disposition of this contention in Kerr-McGee's favor is required.

CONCLUSIONS OF LAW

Contentions 2(a)(i), 2(a)(ii), 2(d), 2(h), 2(l), 2(m), 2(o), 2(q), 2(r), 2(w), 3(g)(2), 4(a), and 7 are resolved in Kerr-McGee's favor in this Initial Decision. Thus, subject to the conditions set forth below, all contentions admitted in this proceeding have now been resolved in Kerr-McGee's favor. On the basis of our findings and rulings contained in this Initial Decision and in LBP-89-35, we conclude that Kerr-McGee's proposed disposal cell satisfies the requirements of 10 C.F.R. Part 40, Appendix A, by wide margins and that there is a high degree of assurance that no significant contamination will occur as a result of the disposal of the West Chicago mill tailings in it.

ORDER

Pursuant to 10 C.F.R. § 2.764(b), Staff is directed to issue the license amendment that Kerr-McGee seeks, subject to the following conditions:

⁷⁸ Kerr-McGee's Motion for Summary Disposition at 19-20 and Exh. 8. Staff concurs. See Staff's Response at 10.

⁷⁹ Illinois' Response at 16-17.

1. During stabilization activities, Kerr-McGee is to implement the mitigative measures against radioactive dust specified in ¶ 5.9.4.1 of the SFES; and

2. Kerr-McGee must institute a detection monitoring system pursuant to Criterion 7A of Appendix A to 10 C.F.R. Part 40 when the tailings are placed in the disposal area.

Pursuant to 10 C.F.R. §§ 2.762(a) and 2.785(a), any party may take an appeal of this Initial Decision by filing a notice of appeal with the Atomic Safety and Licensing Appeal Board within 10 days of service of this Initial Decision. Pursuant to 10 C.F.R. § 2.764, this Initial Decision shall be effective immediately, and, pursuant to 10 C.F.R. § 2.760(a), shall constitute the final action of the Nuclear Regulatory Commission 45 days after its date unless appealed.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Dr. Jerry R. Kline
ADMINISTRATIVE JUDGE

Dr. James H. Carpenter
ADMINISTRATIVE JUDGE

John H Frye, III, Chairman
ADMINISTRATIVE JUDGE

Bethesda, Maryland
February 13, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kenneth M. Carr, Chairman
Thomas M. Roberts
Kenneth C. Rogers
James R. Curtliss
Forrest J. Remick

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(Offsite Emergency
Planning)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Statlon, Unlts 1
and 2)

March 1, 1990

The Commission addresses a certified question from the Appeal Board seeking guidance on whether testimony concerning particular accident scenarios and their projected dose consequences is admissible for purposes of judging the adequacy of an emergency plan. The Commission determines that such testimony is inadmissible. The Commission reiterates that emergency plans are to be evaluated against the sixteen planning standards of 10 C.F.R. § 50.47(b), which are directed toward reasonable assurance of protective measures for a broad spectrum of accidents.

EMERGENCY PLANNING: BASIS FOR REQUIREMENT

The rulemakings of 1980 and 1987 establish that emergency planning as a general matter is considered part of first-tier ("adequate") protection.

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.47(b))

For the purpose of deciding whether proffered testimony on dose reduction in a specific scenario should be admitted as relevant to evaluation of emergency planning, it is immaterial whether the emergency planning regulations are considered first-tier ("adequate") or second-tier ("extra-adequate") protection.

EMERGENCY PLANNING: OBJECTIVE

Emergency planning is "essential." But it is only common sense to acknowledge that emergency plans are a backstop, a second or third line of defense that comes into play only in the extremely rare circumstance that engineered design features and human capacity to take corrective action have both failed to avert a serious mishap.

EMERGENCY PLANNING: BASIS FOR REQUIREMENT; REQUIREMENTS

In the text of its emergency planning regulations, in rulemakings on the subject of emergency planning, and in adjudicatory decisions interpreting those regulations, the Commission has made clear that judgments on the adequacy of emergency planning are to be based on conformity with the planning standards set forth in 10 C.F.R. § 50.47(b).

EMERGENCY PLANNING: REQUIREMENTS

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.47)

Nothing in 10 C.F.R. § 50.47 contains any suggestion that calculations of dose consequences are intended to play a role in the evaluation of an emergency plan's adequacy. Consideration of specific accident sequences and their potential dose consequences has been rendered unnecessary by the promulgation of generic guidance that incorporates and synthesizes data on a range of accidents and their consequences.

EMERGENCY PLANNING: REQUIREMENTS

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.47)

It is by applying the generic guidance of the sixteen planning standards of 10 C.F.R. § 50.47(b) to the review of individual emergency plans — not by attempting to predict the effects of particular hypothetical accidents occurring under particular hypothetical conditions of weather, time of year, and time of

day — that the NRC satisfies itself that the goal of achieving dose reductions is met.

EMERGENCY PLANNING: REQUIREMENTS

EMERGENCY PLANS: FEMA FINDINGS (REBUTTABLE PRESUMPTION)

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.47)

The final emergency planning rule, as amended in 1987, should have left little doubt as to the Commission's intent, which may be summarized as follows: Emergency plans are to be evaluated on their own merits, against the sixteen planning standards of 10 C.F.R. § 50.47(b), with presumptive validity accorded to FEMA's expert judgments on offsite planning; that the evaluation does not entail consideration of the dose consequences that might be calculated under various hypothetical circumstances; and that a plan judged adequate against those planning standards is considered generally comparable to any other plan that has been found adequate.

ADJUDICATORY HEARINGS: CONSIDERATION OF ISSUES INVOLVED IN RULEMAKING

RULES OF PRACTICE: CHALLENGE TO COMMISSION REGULATIONS; WAIVER OF RULES OR REGULATIONS

A determination of standards of decisionmaking, made by rule, is not for individual adjudicatory boards to alter. Parties dissatisfied with the rule's approach may petition to change the rule, or they may attempt, by requesting a waiver of the rule, to show why it should not be applied to a particular case.

MEMORANDUM AND ORDER

I. INTRODUCTION

In ALAB-922, 30 NRC 247, issued on October 11, 1989, the Appeal Board certified a question to the Commission for resolution, pursuant to 10 C.F.R. § 2.785(d), under which the Appeal Board may "certify to the Commission for its determination major or novel questions of policy, law or procedure." The question certified was the following:

whether the MassAG's [Massachusetts Attorney General's] testimony, which seeks to address the dose reductions/dose consequences that will arise under the NHRERP [New Hampshire Radiological Emergency Response Plan], . . . is admissible as relevant to a determination of whether, in accordance with the Commission's *Shoreham* guidance, the NHRERP will achieve "reasonable and feasible dose reduction under the circumstances" so as to provide "reasonable assurance that adequate protective measures can and will be taken" in accordance with 10 C.F.R. § 50.47(a).

30 NRC at 259.

For the reasons that follow, we have determined that the testimony proffered by the Massachusetts Attorney General was admissible neither for the purpose mentioned by the Appeal Board nor for any other. To explain the basis of our decision requires us to set forth in some detail the context in which the admissibility of the proffered testimony was considered by the two Boards.

II. PROCEEDINGS BEFORE THE BOARDS

A. Licensing Board

The Massachusetts Attorney General, in a contention first offered in 1983 and resubmitted in 1986, charged that the New Hampshire plan did not, as required by 10 C.F.R. § 50.47(a), provide "reasonable assurance that adequate protective measures can and will be taken" in an emergency, because on a summer weekend, with the nearby beaches densely populated by transients, evacuation would fail to protect persons on the beach under many plausible meteorological conditions, and inadequate provisions had been made for sheltering these persons. The Applicants objected to this contention on the grounds, first, that the NRC's emergency planning regulations were not intended to guarantee absolute protection or a given level of protection, and second, that to litigate the contention would in effect be to relitigate the decision to site the plant at Seabrook. The Staff opposed the contention to the extent that it could be interpreted as seeking to litigate the dose consequences of any specific accident or as asserting that emergency planning must achieve a particular level of dose protection to the public, but would have allowed its admission to the extent that it constituted a challenge to the adequacy of the sheltering provided for the beach population.

The Licensing Board rejected the proposed contention on April 29, 1986. The Commission's rules, it said, did not require a zero-risk standard, but rather the development of emergency plans with the flexibility to ensure response to a wide spectrum of accidents. The Massachusetts Attorney General, said the Licensing Board, was seeking to have each of the responses within the range of protective responses provide absolute assurance, whereas the intent of the rules was to ensure that any one or a combination of responses would provide

the requisite reasonable assurance. The Licensing Board agreed with the Staff that particular postulated accidents were inappropriate for litigation, and that the regulations did not require that any particular level of radiological dose reductions be achieved.

The Massachusetts Attorney General sought review by the Appeal Board, but the Appeal Board, in ALAB-838, 23 NRC 585 (1986), held the appeal to be interlocutory, since Massachusetts could continue to participate in the proceeding as an interested state. As an interested state, therefore, the MassAG tried again in September 1987, offering testimony as to the technical basis for the NRC's emergency planning rules, radiation doses to the public that would result from an accident at Seabrook, the potential for an atmospheric release, and the probable health consequences of the foregoing.

The MassAG argued that this testimony was germane, since it illuminated the actual level of protection afforded the public, a necessary part of a "reasonable assurance" finding. The regulations, said the MassAG, called for a range of protective measures, but here, the plan did not provide for sheltering. The MassAG urged that while the Board was not required to make specific dose-savings findings, or to calculate the number of people who would be injured in an accident, it was nevertheless required to accept evidence on those issues in order to determine the adequacy of the protective measures provided by the emergency plan.

Applicants objected to the offer of proof, arguing that it was an effort to reintroduce the contention rejected earlier, and that the evidence was irrelevant, since it purported to show dose savings and consequences in absolute terms, whereas the regulation only required a showing that the emergency plan "is designed to achieve reasonable and feasible dose savings given the circumstances of the site in question." The Staff agreed with the Applicants.

In a bench ruling on November 17, 1987, the Licensing Board determined that the proposed testimony was outside the scope of the Commission's emergency planning requirements, as outlined in three Commission pronouncements on emergency planning. Tr. 5594. First, the Licensing Board said, the 1983 *San Onofre* decision (*Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 533), had emphasized that with regard to emergency planning,

The emphasis is on *prudent* risk reduction measures. The regulation does not require dedication of resources to handle every possible accident that can be imagined. The concept of the regulation is that there should be core planning with sufficient planning flexibility to develop a reasonable *ad hoc* response to those very serious low probability accidents which could affect the general public. [Emphasis in original.]

Second, the Licensing Board looked to the Commission's 1986 decision in *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-86-13, 24 NRC 22, where the Commission said:

The root question becomes whether the LILCO plan can provide for "adequate protective measures . . . in the event of a radiological emergency."

This root question cannot be answered without some discussion of what is meant by "adequate protective measures." Our emergency planning regulations are an important part of the regulatory framework for protecting the public health and safety. But they differ in character from most of our siting and engineering design requirements which are directed at achieving or maintaining a minimum level of public safety protection. *See, e.g.*, 10 C.F.R. § 100.11. Our emergency planning requirements do not require that an adequate plan achieve a preset minimum radiation dose saving or a minimum evacuation time for the plume exposure pathway emergency planning zone in the event of a serious accident. Rather, they attempt to achieve reasonable and feasible dose reduction under the circumstances

Id. at 29-30 (footnote omitted).

Finally, the Licensing Board cited the then newly issued final rule in the 1987 rulemaking on emergency planning, where the Commission said:

The final rule makes clear that every Emergency Plan has to be evaluated for adequacy on its own merits, without reference to the specific dose reductions which might be accomplished under the plan, or to the capabilities of any other plan.

52 Fed. Reg. 42,078, 42,084 (Nov. 3, 1987).

The Licensing Board concluded that the proffered testimony, despite sincere efforts to argue otherwise, involved "specific assumptions of doses, dose consequences, health effects, and the entire array that the Commission stated is not part of consideration." Tr. 5608.

B. Appeal Board

The issue of the exclusion of the proffered testimony came before the Appeal Board on its review of the Licensing Board's December 30, 1988 Partial Initial Decision (LBP-88-32, 28 NRC 667) on the New Hampshire emergency plan. In ALAB-922, issued on October 11, 1989, the Appeal Board provided a different analysis of the issue from that of the Licensing Board. It declared that the focal point of the dispute was where the emergency planning regulations, with their requirement of "reasonable assurance," fit into the two-tiered regulatory scheme of the Atomic Energy Act. The Appeal Board explained that the Commission's safety regulations are either standards necessary to provide first-tier "adequate protection" (as authorized by section 182(a) of the Atomic Energy Act) or are second-tier "extra-adequate protection" (measures over and above what is needed for adequate protection) as authorized by sections 161(b) and (i) of the Atomic

Energy Act. The distinction between the two was recognized, said the Appeal Board, in *UCS v. NRC*, 824 F.2d 108 (D.C. Cir. 1987) (*UCS I*).

The Intervenor, said the Appeal Board, claimed that 10 C.F.R. § 50.47 was a first-tier "adequate protection" standard, and that the Commission could not determine whether "adequate protection" was provided without evaluating the degree to which the emergency plan still left the public at risk. This argument, said the Appeal Board, was "promptly dispelled" by an examination of the 1980 rulemaking that promulgated 10 C.F.R. § 50.47. In that rulemaking, the Commission cited as its authority sections 161(b), (i), and (o) of the Atomic Energy Act. In the Appeal Board's words, "[i]t is hard to imagine a more compelling indication that . . . emergency planning requirements are intended to be second-tier, AEA section 161 safety provisions rather than first-tier, 'adequate protection' requirements under AEA section 182." ALAB-922, *supra*, 30 NRC at 256-57. Thus the Appeal Board had "no difficulty" rejecting the Intervenor's argument that the proffered testimony was admissible to show that even with the New Hampshire emergency plan in place, operation of the plant presented such risks as to fail the "adequate protection" test. *Id.* at 257-58.

The Appeal Board found "more compelling" the argument that the evidence should be admitted to show (in accordance with *Shoreham's* guidance that emergency plans should seek to achieve "reasonable and feasible dose reductions") whether the dose reductions achievable by the New Hampshire plan were "reasonable." Clearly, said the Appeal Board, the reductions would be "feasible," since the plan had been prepared by state officials; but a "more compelling case" was presented by the argument that those dose reductions would not be "reasonable," if, as contended by the Massachusetts Attorney General, they would result in little realistic dose reduction and lead to doses with serious health consequences. To this, the Appeal Board noted, Applicants and Staff answered that all information on dose consequences and dose reductions was beside the point, since the Commission had made clear in *Shoreham* that no preset dose reductions or evacuation times were called for, and the 1987 rule had declared that plans were to be evaluated for adequacy "without reference to the specific dose reductions which might be accomplished under the plan." *Id.* at 258, *citing* 52 Fed. Reg. at 42,084.

The Appeal Board thus found itself pulled between what it considered to be two contradictory lines of analysis: *Shoreham's* emphasis on "reasonable" dose reductions and the "perhaps superseding" guidance of the 1987 rule, in which the determination of "specific dose reductions" was ruled out. The latter approach, the Appeal Board said, suggested that "given the 'extra-adequate protection' status of emergency planning requirements," review of emergency plans should concentrate not on a subjective judgment of whether the protection afforded to the public is "adequate," but rather on conformance with the requirements of the regulation and the pertinent NRC/FEMA criteria. Accordingly, the Appeal

Board certified to the Commission the question of whether the MassAG's testimony was admissible as relevant to a determination of whether the New Hampshire plan would achieve "reasonable and feasible dose reduction under the circumstances" so as to provide "reasonable assurance that adequate protective measures can and will be taken." *Id.* at 259.

On October 20, 1989, the Massachusetts Attorney General asked the Appeal Board to reconsider its decision that emergency planning regulations represented a "second-tier" or "extra-adequate" level of protection under section 161 of the Atomic Energy Act rather than "first-tier" protection under AEA section 182. The petition urged that the transcript of the 1980 Commission meeting at which the language of the emergency planning rule was crafted was evidence that the Appeal Board erred on this central point. The Massachusetts Attorney General argued that the citation to section 161 in the 1980 rulemaking was without significance, and it noted that the Commission's fire protection rule — by the NRC's own account a first-tier "adequate protection" standard — had been issued under section 161. The petition also noted that the two-tier theory had not been articulated until years after the 1980 rulemaking on emergency planning. Massachusetts offered a different explanation of the citation to sections 161(b), (i), and (o): to ensure that criminal sanctions set forth in 42 U.S.C. § 2273 would apply. A similar petition was filed by the Seacoast Anti-Pollution League.

On October 23, the Appeal Board summarily denied the petitions for reconsideration, on the grounds that the issues raised in them were so linked to those involved in the question certified to the Commission for decision that they should be resolved by the Commission rather than the Appeal Board.

III. FILINGS OF THE PARTIES

In response to a briefing schedule issued by the Commission on October 13 (modified by an extension of time granted to the NRC Staff), the parties filed their briefs between October 27 and November 13, 1989. The positions of the parties may be summarized as follows.

1. Intervenors

Intervenors assert that the Appeal Board erred when it held, based on the citation to section 161 of the Atomic Energy Act in the 1980 emergency planning rulemaking, that emergency planning was a second-tier, "extra-adequate" safety measure. The transcript of the 1980 Commission meeting that preceded adoption of the rule makes clear that the key phrase "adequate protective measures" in the regulation was specifically intended to track the phrase "adequate protection" in section 182 of the AEA. The choice of words was designed to assure that

“best efforts” would not be enough, and that emergency planning measures would also have to be effective in protecting the public. In recognition that the discussion was crucial to a correct understanding of the Commission’s intent, the Commissioners directed that the transcript be included in the rulemaking record.

According to the Intervenor, the Appeal Board, in relying on the citation to sections 161(b), (i), and (o) — an issue that the Appeal Board itself raised, none of the parties having done so — ignored the 1980 Authorization Act in which Congress directed the NRC to develop emergency planning regulations. Although the Commission’s final rule in 1980 included a statement that the rule was consistent with the Authorization Act, that Act did not appear in the list of authorities. Thus the list is incomplete on its face. Furthermore, the Commission has named section 161 as the sole basis of such safety-based rules as the fire protection rule, cited by the Commission in an appellate brief as an example of a first-tier “adequate protection” backfit. In reality, the citations to sections 161(b), (i), and (o) simply designate regulations to which criminal penalties under 42 U.S.C. § 2273 are intended to apply. Any doubt is eliminated when it is recognized that in the 1980 version of 10 C.F.R., the General Design Criteria of 10 C.F.R. Part 50, Appendix A, were not described as based on section 182.

Intervenor’s claim that the Appeal Board’s quotation from the Commission’s 1986 *Shoreham* decision was misplaced. Although some of the quoted language might suggest that emergency planning was not designed to achieve or maintain a regulatory minimum of protection, the 1980 rulemaking was unambiguous on that point, and it is controlling. Indeed, in 1983 the Commission, in response to a congressional question, made clear that it saw emergency planning as a matter of adequate protection, not — as in the days before the TMI accident — a “secondary but additional measure to be exercised in the unlikely event that an accident would happen.”

Likewise, say the Intervenor, the Appeal Board should have given no weight to the Commission’s statements in the 1987 rulemaking that suggested emergency planning was of second-rank importance. First, the context in which the 1980 Commission spoke of emergency planning as needed to “bolster” other safety measures was one that (as described above) contrasted the pre-TMI and post-TMI approaches. Moreover, even the Commission in 1987 conceded that it was not possible to resolve the issue of the intended significance of emergency planning through “microscopic” analysis of the 1980 language. As for the 120-day clock, that provision did not reveal a difference between emergency planning and other safety regulations, but rather a resemblance, in that other types of regulations also do not require automatic shutdown. Moreover, the 1980 regulation reflected a compromise, with new and existing plants handled differently. For new plants such as Seabrook, an adequate emergency plan was essential to operation. In fact, the reason for the 120-day clock was not a casual

view of emergency planning, but rather a recognition that the NRC did not have the power to compel the cooperation of state and local governments.

In the Intervenor's view, the phrase "adequate protective measures" in section 50.47(a)(1) has a plain meaning that must be acknowledged. The Appeal Board never addressed the Intervenor's argument that whatever the Commission thought about emergency planning in 1987, it still considered emergency planning to be part of the first-tier adequate protection framework. The Commission would never have countenanced the huge sums that utilities have spent on emergency planning since 1980 if those requirements were not viewed as necessary for adequate protection. The Appeal Board did not deal with the 1980 Authorization Act, in which Congress made clear that emergency planning was designed to prevent "public endangerment," i.e., first tier. In statements to the Congress, Commissioners made clear that they shared Congress' view that emergency planning regulations were in place to ensure "adequate protection."

Once it is recognized, say the Intervenor, that emergency planning is a first-tier safety standard, then there are three different approaches under which the Massachusetts Attorney General's proffered testimony is admissible: (1) to contribute to a case-by-case evaluation of whether the risk posed by operation of Seabrook is acceptable; (2) for a determination of whether a "range of protective measures," as required by the planning standards of section 50.47(b), have been provided; and (3) to judge whether the plan achieves "reasonable and feasible dose reductions under the circumstances," to quote the Commission's 1986 *Shoreham* decision. The phrase "under the circumstances" should be understood to refer simply to the case-by-case nature of the inquiry, not to suggest that a "best-efforts" showing is all that is needed. The Commission's November 1987 final emergency planning rule rejected a "best-efforts" approach.

Finally, Intervenor argues, there is no "exclusionary rule" in NRC proceedings that would bar testimony on dose consequences. The evidence on dose reductions and dose consequences that the Massachusetts Attorney General has sought to introduce is plainly relevant to the adequacy of the emergency plan. The only way that such obviously relevant evidence could be excluded is the existence of some policy barring its admission. Such an intent might account for the statement in the Commission's November 1987 rule that "every emergency plan is to be evaluated for adequacy on its own merits, without reference to the specific dose reductions which might be accomplished under the plan." It would be irrational, however, for the Commission, without ever having articulated a rational basis for doing so, to say in one breath that it will evaluate a plan's adequacy and in the next that it will not look at evidence plainly relevant to the plan's adequacy. The NRC has expertise in evaluating dose consequences, which it routinely estimates in a variety of contexts.

For these reasons, Intervenor urge, the Commission should reverse the Appeal Board's "second-tier" finding and direct the Appeal Board to proceed with its review of LBP-88-32 accordingly. Alternatively, it should go further and indicate that the proffered testimony was relevant and material and should have been admitted.

2. Applicants

The precise question posed by the Appeal Board, say the Applicants, was whether the reference in *Shoreham* to the objective of achieving "reasonable and feasible dose reduction" meant that evidence on dose savings and dose consequences should be admitted. In the context in which the Commission used that phrase, "reasonable" referred to dose savings achievable without disproportionate cost. This position is consistent with *San Onofre*, CLI-83-10, *supra*, which said that the emergency planning rules emphasized "prudent" risk reduction measures, not extraordinary measures such as construction of new hospitals. The 1987 amendments to the Commission's emergency planning rules lay to rest any suggestion that the proffered testimony could be admissible. The proposed rule emphasized that the emergency planning rules were flexible, not aimed at achieving preestablished minimum dose savings. The final rule made the same point, declaring that findings as to precise dose reductions "are never a requirement in the evaluation of emergency plans," and that emergency plans were to be evaluated individually, "without reference to the specific dose reductions which might be accomplished under the plan. . . ." The foregoing demonstrates that the evidence proffered by the Intervenor was irrelevant, since all that must be shown to satisfy the NRC's requirements is that the emergency plan is "designed to achieve reasonable and feasible dose savings given the circumstances of the site in question." Once that is shown, it is irrelevant "whether these dose savings will be high or low in absolute terms at a particular site in the circumstances of a given accident or class of accidents."

The Appeal Board was correct, Applicants argue, in finding that the NRC's emergency planning rules, having been promulgated under section 161 of the Atomic Energy Act, constitute "second-tier" protection under the two-tier formula described in *UCS I*. Citations of authority are required by the Administrative Procedure Act and are not merely some afterthought to which the agency may or may not give consideration. The 1980 Commission transcript on which Intervenor rely is at best inconclusive. It does not remove the ambiguity as to the meaning of "adequate protective measures" in the regulation, but it does make clear that the emergency planning rules were not intended as a "site blocking" regulation. Moreover, the 1987 emergency planning rules commented on the "inconsistency" in the Commission's 1980 pronouncements on emergency planning.

According to Applicants, the Intervenor may be correct in saying that a reference to section 161 does not necessarily designate a rule as "second tier," but in the case of the emergency planning rules, it is clear that the Commission intended second-tier status. The fire protection rule, cited by Intervenor as an "obvious example" of a first-tier safety regulation that was issued under section 161, actually demonstrates the opposite. In the list of authorities for Part 50 found in 52 Fed. Reg. 41,294, section 161(b) is cited as authority for section 50.48, for purposes of 42 U.S.C. § 2273 (establishing criminal sanctions for violations). Sections 161 and 182 are both cited as authority for Part 50. Thus the reference in the rulemaking to section 161(b) was intended to identify 10 C.F.R. § 50.48 as a regulation to which criminal sanctions would apply. With regard to 10 C.F.R. § 50.47, however, the list of authorities for Part 50 does not mention § 50.47 specifically. However, the rulemaking listed sections 161(b), (i), and (o). This fact, coupled with the absence of a statement that criminal sanctions would apply to the regulation, demonstrates that the Commission could only have intended § 50.47 to be a second-tier regulation.

In the Applicants' view, references to statements made to the Congress by individual Commissioners deserve little or no weight in determining whether the regulation is first or second tier. More to the point is the distinction that the Commission drew in *Shoreham*, CLI-86-13, *supra*, between emergency planning regulations and siting and engineering design requirements "which are directed at achieving or maintaining a minimum level of public safety protection," (24 NRC at 30) such as 10 C.F.R. § 100.11, which establishes the exclusion area and low population zone in terms of doses to individuals. This language clearly shows emergency planning regulations to be second tier.

Finally, say the Applicants, the discussion in the Commission's 1987 proposed rulemaking makes clear that any ambiguity was to be resolved in favor of calling emergency planning rules second tier. The final rule made the further point that the 120-day clock in the 1980 rule showed the second-tier status of emergency planning requirements.

3. NRC Staff

According to the NRC Staff, the Commission's regulations — the plain wording of section 50.47(a)(1), the pertinent administrative history, and prior Commission interpretations — all demonstrate that the Licensing Board was correct in excluding the proffered testimony. The regulation calls for determinations by FEMA on the adequacy and implementability of offsite plans, in accordance with planning standards of section 50.47(b). The regulation does not provide for a dose reduction/dose consequences analysis, but rather for a review of the plans against the standards to see if they are adequate and implementable. The Statement of Considerations of the 1980 rule did not indicate that there was

to be any examination of radiological doses and consequences. The Commission there recognized that FEMA was best suited to assess offsite emergency preparedness. The NRC final rule restated, and cited, the guidance of NUREG-0654/FEMA-REP-1, which states that the planning basis for the standards was a spectrum of accidents, independent of specific accident sequences. Thus the Commission intended that individual licensing cases look at conformance with the standards, not at particular accident sequences or their consequences.

The NRC Staff asserts that in *San Onofre*, CLI-83-10, *supra*, the Commission refuted the concept that dose reduction calculations are needed or relevant. In *Shoreham*, the Commission focused on "reasonable and feasible dose reductions *under the circumstances*," not on achieving "a preset minimum radiation dose saving or a minimum evacuation time." CLI-86-13, *supra*, 24 NRC at 30 (emphasis added). This was a plain indication that there was to be no consideration of absolute dose reduction or consequences at particular sites. While *Shoreham* could be read in the manner outlined by the Appeal Board to allow dose savings and consequences to be litigated as part of determining whether dose reductions achieved by a plan are "reasonable," the decision, when read in context, emphasizes that plans are to be judged against "standards" rather than on the basis of dose and risk calculations. That point was reiterated several times in the 1987 final rule on emergency planning. That same rule made clear that plans were to be judged without reference to the specific dose reductions that might be accomplished under a particular plan.

It is immaterial, says the NRC Staff, whether emergency planning is a first-tier or second-tier regulation, for in either case, the proffered testimony was irrelevant. Intervenor's emphasis on emergency planning as a first-tier, adequate-protection standard seems to be based on the misconception that if the regulation is first tier, dose calculations are required to determine the adequacy of emergency plans. In fact, whether the regulation was adopted under section 161 of the AEA (as these were) or section 182, the Commission's regulations do not call for dose calculations, but rather for conformity with standards set out in the regulations. In this regard they are like many of the Commission's most basic safety regulations, such as emergency core cooling standards and quality assurance requirements. If the Intervenor wished to challenge the adequacy of the rule, they could have petitioned for a rule change, and they could have asked for a waiver of the rule in this case. Instead, they are attempting to engraft onto the rule requirements over and above those established by the Commission.

To answer the certified question directly, the NRC Staff maintains, the phrase "reasonable and feasible dose reductions under the circumstances" in *Shoreham* envisioned testimony not on dose projections and dose consequences, but on reasonable and feasible *methods* of dose reduction for a particular site under the circumstances existing there. The Licensing Board received such testimony and

concluded, as had FEMA, that the New Hampshire emergency plan provided "for a range of protective actions."

IV. DISCUSSION

1. "First Tier" vs. "Second Tier"

In approaching the issues presented by the certified question, it may be useful to begin by addressing, as a threshold matter, the Appeal Board's finding that emergency planning is a second-tier, "extra-adequate" protection requirement. We do so for the sake of clarifying this area of the Commission's regulations, not because it is necessary to our decision. We agree with the NRC Staff that for the purpose of deciding whether the Massachusetts Attorney General's proffered testimony should have been admitted, it is immaterial whether the emergency planning regulations are considered first tier or second tier.

The issue of what the Commission intended when it put the emergency planning rule in place was discussed extensively in the proposed and final 1987 emergency planning rules and their Statements of Considerations. In the March 1987 proposed rule (52 Fed. Reg. 6980), the Commission commented on the inconsistency between some of the language of the 1980 rulemaking and the regulatory scheme that it actually put in place. Writing after the promulgation of the backfit rule, the Commission in its March 1987 notice also squarely posed the question whether emergency planning should be considered first-tier or second-tier protection:

On the one hand, the Commission stated that the new requirements, as well as proper siting and engineered safety features, were needed to protect public health and safety. Taken in isolation, these statements can be read as evidencing a Commission decision that emergency planning and preparedness as provided in those revised rules were to be treated as matters essential to safe operation of nuclear facilities and therefore to be imposed rigorously without regard to equity or cost.

On the other hand, the Commission rejected an option in the rulemaking that could have led to automatic plant shutdown if adequate plans were not filed because of commenters' concerns about "unnecessarily harsh economic and social consequences to State and local governments, utilities, and the public." Operating plants were given very substantial grace periods. . . . These provisions are not consistent with the concept that emergency planning and preparedness are as important to safety as such engineered safeguards as reactor containments or emergency core cooling systems. . . . Rather, these provisions reflect a different concept — that adequate emergency planning and preparedness are needed and important, but that they represent an additional level of public protection that comes into play only after all of the other safety requirements for plant design, quality construction, and careful, disciplined operation have been considered, and that therefore some regulatory flexibility is warranted and the costs associated with alternative approaches may be taken into account.

The Commission's notice asked for comment on which of the two approaches should be followed:

a relatively inflexible one, that will require adequate planning and preparedness with little or no concern for fairness or cost; or a more flexible one that focuses on what kind of accident mitigation (dose reduction to the public in the event of an accident) can be reasonably and feasibly accomplished, considering *all* of the circumstances. If sound safety regulation requires the former, then no rule change is warranted. If the latter, then a change would be in order. . . .

In other words, the Commission's March 1987 proposed rule recognized explicitly that to move from an "adequate protection" standard to a "second-tier" or backfit standard, a rule change would be needed.

The Commission's November 1987 final rule, 52 Fed. Reg. 42,078, disavowed any intent to move from the former to the latter approach. The Commission began its answer to the question, "Is emergency planning as important to safety as proper plant design and operation?" by declaring:

First of all, this issue does not have to be addressed in the context of the final rule announced in this notice, since the present rule involves no redrawing by NRC of the balance between emergency planning and other provisions for the protection of health and safety.

The Commission then went on to discuss the words used in the 1980 rule, noting that in places, emergency planning was described as "essential" and "needed," whereas elsewhere emergency planning was described as "bolstering" the protection offered by engineered design features. The issue, said the Commission, could not be resolved definitively by "microscopic analysis" of the language of the 1980 notice. More relevant, said the Commission, was the regulatory structure put in place, in particular the "120-day clock":

In 10 CFR 50.54(s)(2)(ii), the Commission provided that if it "finds that the state of emergency preparedness does not provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency . . . and if the deficiencies . . . are not corrected within four months of that finding, the Commission will determine whether the reactor shall be shut down until such deficiencies are remedied or whether other enforcement action is appropriate. In other words, a plant ordinarily may operate for at least four months with deficiencies in emergency planning before the NRC is required even to decide whether remedial action should be taken. . . . At the time that the Commission created the so-called "120-day clock" for deficiencies in emergency planning, it was settled Commission law (and remains so today) that the NRC must issue an order directing a licensee to show cause why its license should not be modified, revoked, or suspended whenever it concludes that "substantial health or safety issues ha[ve] been raised about the activities authorized by the license. . . . In the context of that standard, the 120-day clock provision for emergency planning deficiencies amounts to a Commission finding that, at least for the first 120 days, even a major deficiency in emergency planning does not automatically raise a "substantial health or safety issue" with regard to plant operation.

By contrast, a major safety deficiency relating to emergency conditions — for example, the availability of the emergency core cooling system — would warrant immediate shutdown.

In sum, despite language indicating that emergency planning was “essential,” the Commission in 1980 created a regulatory structure in which emergency planning was treated somewhat differently, in terms of the corrective actions to be taken when deficiencies are identified, from the engineered safety features (“hardware”) that would be relied on in an emergency.

The foregoing discussion from the 1987 final rule helps to clarify the real nature of the issue in dispute. The relevant consideration is not whether emergency planning as a general matter is a part of “adequate protection” or of “extra-adequate protection.” The Commission’s rulemakings of 1980 and 1987 establish that it is the former. (We do not share the Appeal Board’s view of the significance of the citation to section 161 in the 1980 rulemaking.) To frame the issue in terms of a simple choice between “adequate” and “extra-adequate” protection is to lose sight of the reality that when the Commission enumerates the many individual safety issues that must be resolved in order to find “adequate protection,” it is not thereby declaring that all those component issues are of equal safety significance, or that the same standards for demonstrating compliance are applicable to all.

For illustration, one need only consider the gamut of issues presented in 10 C.F.R. § 50.34(b), dealing with the Final Safety Analysis Report. These include: a description of the reactor coolant system, instrumentation and control systems, electrical systems, containment system, and other engineered safety features (§ 50.34(b)(2)(i)); the applicant’s organizational structure and personnel qualifications requirements (§ 50.34(b)(6)(i)); plans for conduct of normal operations, including maintenance, surveillance, and periodic testing of structures, systems, and components (§ 50.34(b)(6)(iv)); plans for coping with emergencies (§ 50.34(b)(6)(v)); a description of the operator requalification program (§ 50.34(b)(8)); a description of protection provided against pressurized thermal shock events, including projected values of the reference temperature for reactor vessel beltline materials (§ 50.34(b)(9)); plans for physical security at the facility (§ 50.34(c)); and safeguards contingency plans for dealing with threats, thefts, and sabotage (§ 50.34(d)). Plainly, each of these component determinations has safety significance, and since none can be dispensed with, all can be called “essential”; but no one would claim that each is of identical weight in contributing to public protection. Nor would anyone assert that the same type of analysis is appropriate for each. Necessarily, the kind of highly technical inquiry appropriate to determining the adequacy of the plant’s hardware will not resemble either the “human factors” analysis applied to the utility’s operator requalification program, or the predictive judgments required for a decision on safeguards contingency plans.

The real issue, therefore, is not a judgment in the abstract about the place of emergency planning in the hierarchy of safety standards, or an exercise in semantics about the meaning of the word "essential." (So that there may be no misunderstanding, let us make clear that adequate emergency planning is "essential," just as adequate lifeboats are essential for a liner carrying passengers at sea. But it is only common sense to acknowledge that emergency plans, like lifeboats, are a backstop, a second or third line of defense that comes into play only in the extremely rare circumstance that engineered design features and human capacity to take corrective action have both failed to avert a serious mishap.) For our purposes today, the real issue is a much more straightforward question: What is the nature of the inquiry that the Commission, in recognition of the fact that emergency planning involves predicting the ability to respond to the unpredictable, has put in place for determining whether "adequacy," i.e., compliance with the Commission's emergency planning regulations, has been established?

2. How Adequacy Is Determined

The Commission's emergency planning requirements are not obscure. In the text of the regulations, in rulemakings on the subject of emergency planning, and in adjudicatory decisions interpreting those regulations, the Commission has made clear that judgments on the adequacy of emergency planning are to be based on conformity with the sixteen planning standards set forth in 10 C.F.R. § 50.47(b).¹ For offsite planning, the regulations provide that the

¹ 10 C.F.R. § 50.47(b) provides:

The onsite and, except as provided in paragraph (d) of this section, offsite emergency response plans for nuclear power reactors must meet the following standards:

(1) Primary responsibilities for emergency response by the nuclear facility licensee and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

(2) On-shift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available and the interfaces among various onsite response activities and offsite support and response activities are specified.

(3) Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

(4) A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

(5) Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and followup messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

(Continued)

Federal Emergency Management Agency (FEMA) shall make "findings and determinations as to whether State and local emergency plans are adequate and whether there is reasonable assurance that they can be implemented." 10 C.F.R. § 50.47(a)(2). This FEMA finding "will primarily be based on a review of the plans." *Id.* The same regulation also provides that "[i]n any NRC licensing proceeding, a FEMA finding will constitute a rebuttable presumption on questions of adequacy and implementation capability." Section 50.47(c)(1), which states that the Commission may decline to issue an operating license in case of "[f]ailure to meet the applicable standards set forth in paragraph (b) of this section," reinforces the point that adequacy is to be judged by conformity with the planning standards. Nothing in the regulation contains any suggestion that calculations of dose consequences are intended to play a role in the evaluation of a plan's adequacy.

As the NRC Staff pointed out in its brief, the 1980 rulemaking was in part a restatement of the guidance developed jointly by NRC and FEMA in NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants." That document, frequently quoted and relied upon in the 1980 rulemaking, states in part:

(6) Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

(7) Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.

(8) Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

(9) Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

(10) A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

(11) Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

(12) Arrangements are made for medical services for contaminated injured individuals.

(13) General plans for recovery and reentry are developed.

(14) Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

(15) Radiological emergency response training is provided to those who may be called on to assist in an emergency.

(16) Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

The overall objective of emergency response plans is to provide dose savings (and in some cases immediate life saving) for a spectrum of accidents that could produce offsite doses in excess of Protective Action Guides (PAGs). No single specific accident sequence should be isolated as the one for which to plan because each accident could have different consequences, both in nature and degree. Further, the range of possible selection for a planning basis is very large, starting with a zero point of requiring no planning at all because significant offsite radiological accident consequences are unlikely to occur, to planning for the worst possible accident, regardless of its extremely low likelihood. The NRC/EPA Task Force did not attempt to define a single accident sequence or even a limited number of sequences. Rather, it identified the bounds of the parameters for which planning is recommended, based upon knowledge of the potential consequences, timing, and release characteristics of a spectrum of accidents. Although the selected planning basis is independent of specific accident sequences, a number of accident descriptions were considered in the development of the guidance, including the core melt accident release categories of the Reactor Safety Study.

Id. at 6-7 (footnotes omitted).

In other words, consideration of specific accident sequences and their potential dose consequences has been rendered unnecessary by the promulgation of generic guidance that incorporates and synthesizes data on a range of accidents and their consequences. Thus the seeming anomaly of excluding proffered evidence on dose consequences, where the objective of the inquiry is to reduce dose consequences, is in fact no anomaly at all. For it is by applying the generic guidance of the regulation's sixteen standards to the review of individual emergency plans — not by attempting to predict the effects of particular hypothetical accidents occurring under particular hypothetical conditions of weather, time of year, and time of day — that the NRC satisfies itself that the goal of achieving dose reductions is met.

The Commission interpreted and explained its emergency planning requirements in the 1983 *San Onofre* decision, where it said:

Since a range of accidents with widely differing offsite consequences can be postulated, the regulation does not depend on the assumption that a particular type of accident may or will occur. In fact, no specific accident sequences should be specified because each accident could have different consequences both in nature and degree. Although the emergency planning basis is independent of specific accident sequences, a number of accident descriptions were considered in development of the Commission's regulations, including the core melt accident release categories of the Reactor Safety Study (WASH-1400).

San Onofre, CLI-83-10, *supra*, 17 NRC at 533 (footnote omitted).

The Commission further explained:

It was never the intent of the regulation to require directly or indirectly that state and local governments adopt extraordinary measures, such as construction of additional hospitals or recruitment of substantial additional medical personnel, just to deal with nuclear plant accidents. The emphasis is on *prudent* risk reduction measures. The regulation does not

require dedication of resources to handle every possible accident that can be imagined. The concept of the regulation is that there should be core planning with sufficient planning flexibility to develop a reasonable *ad hoc* response to those very serious low probability accidents which could affect the general public.

Id. (emphasis in original).

In the 1986 *Shoreham* decision, CLI-86-13, *supra*, the Commission discussed the emergency planning regulations in language that appears to have left the Appeal Board with some uncertainty as to the nature of the inquiry called for. Among other things, the Commission said:

Our emergency planning requirements do not require that an adequate plan achieve a preset minimum radiation dose saving or a minimum evacuation time for the plume exposure pathway emergency planning zone in the event of a serious accident. Rather, they attempt to achieve reasonable and feasible dose reduction under the circumstances; what may be reasonable or feasible for one site may not be for another.

24 NRC at 30.

Referring to the fact that state and local governments were not participating in emergency planning for Shoreham, the Commission continued:

But what should we regard as reasonable and feasible for Shoreham, where the governments refuse to cooperate?

. . . .
. . . We could conceivably define what is reasonable and feasible dose reduction for Shoreham solely in terms of what LILCO *itself* can reasonably and feasibly achieve, but we are not prepared to do so. Rather, we might look favorably on the LILCO plan if there was reasonable assurance that it was capable of achieving dose reductions in the event of an accident that are generally comparable to what might be accomplished with government cooperation.

* * * *

In sum, we conclude that LILCO's plan should be measured against a standard that would require protective measures that are generally comparable to what might be accomplished with governmental cooperation.

Id. at 30, 32.

Recognizing that the language just quoted lent itself to the interpretation that findings on dose reductions are a part of the emergency planning inquiry, the Commission soon provided a clarification. In the final emergency planning rule, 52 Fed. Reg. 42,078 (Nov. 3, 1987), the Commission stated:

The Commission currently believes that the planning standards of 10 CFR 50.47(b), which are used to evaluate a state or local plan, also provide an appropriate framework to evaluate a utility plan. Therefore . . . a utility plan . . . will be evaluated for adequacy against the same standards used to evaluate a state or local plan.

. . . .

The approach reflected in this rule amplifies and clarifies the guidance provided in the Commission's decision in *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-86-13, 24 NRC 22 (1986). . . . That decision . . . included language which could be interpreted as envisioning that the NRC must estimate the radiological dose reductions which a utility plan would achieve, compare them with the radiological dose reductions which would be achieved if there were a state or local plan with full state and local participation in emergency planning, and permit licensing only if the dose reductions are "generally comparable." Such an interpretation would be contrary to NRC practice, under which *emergency plans are evaluated for adequacy without reference to numerical dose reductions which might be accomplished*, and without comparing them to other emergency plans, real or hypothetical. The final rule makes clear that *every emergency plan is to be evaluated for adequacy on its own merits, without reference to the specific dose reductions which might be accomplished under the plan* or to the capabilities of any other plan. It further makes clear that a finding of adequacy for any plan is to be considered generally comparable to a finding of adequacy for any other plan.

Id. at 42,084-85 (emphasis added).

Thus to the extent that *Shoreham* suggested that evidence might be taken on dose consequences, the guidance in the 1987 final rule superseded it completely. The final rule should have left little room for doubt as to the Commission's intent, which may be summarized as follows: Emergency plans are to be evaluated on their own merits, against the sixteen planning standards of 10 C.F.R. § 50.47(b), with presumptive validity accorded to FEMA's expert judgments on offsite planning; that the evaluation does not entail consideration of the dose consequences that might be calculated under various hypothetical circumstances; and that a plan judged adequate against those planning standards is considered generally comparable to any other plan that has been found adequate.

Consistent with that guidance, we find that the Licensing Board acted correctly in excluding the proffered testimony. The Appeal Board, in suggesting that the testimony might be admissible for the purpose of determining whether "reasonable and feasible" dose reductions are accomplished by a plan, may have confused the objective of the emergency planning inquiry with the means used to accomplish the objective. The objective, plainly, is the achievement of reasonable and feasible dose reductions in the event of an accident. But the means that the Commission has determined to use is an evaluation of emergency plans against the sixteen planning standards developed by NRC and FEMA.

That determination, made by rule, is not for individual adjudicatory boards to alter. Parties dissatisfied with that approach may petition to change the rule, or they may attempt, by requesting a waiver of the rule, to show why it should not be applied to a particular case. The parties before us have chosen neither of those courses of action. Accordingly, we find that there was no purpose for which the proffered testimony was admissible.

In concluding, we wish to make clear that this opinion does not decide whether emergency planning at Seabrook is adequate, or whether that facility should receive a license to operate at full power. Rather, it provides, in accordance with our procedures for directed certification, guidance as to how, under the Commission's rules, determinations on the adequacy of emergency planning are to be made.

It is so ORDERED.

For the Commission²

SAMUEL J. CHILK
Secretary of the Commission

Dated at Rockville, Maryland,
this 1st day of March 1990.

² Commissioners Curtiss and Remick abstained from consideration of this matter.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kenneth M. Carr, Chairman
Thomas M. Roberts
Kenneth C. Rogers
James R. Curtliss
Forrest J. Remick

In the Matter of

Docket Nos. 50-443-OL
50-444-OL

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

March 1, 1990

The Commission decides to allow the Atomic Safety and Licensing Board's authorization of a full-power license for the Seabrook Nuclear Power Station Unit 1 to become effective under its regulations during the pendency of further appeals and other administrative proceedings. In reaching its immediate effectiveness review, the Commission denies Intervenor's request for relief in the nature of mandamus. Requests for stays of full-power license authorization are also denied; however, a brief housekeeping stay is provided to permit the filing of judicial stay motions.

NRC: SUPERVISORY AUTHORITY

By regulation and a long line of case precedent, the Commission has explicitly retained supervisory power to step in at any stage of a proceeding to decide any matter itself. *See* 10 C.F.R. §§ 2.764(e)(3)(i) and (f)(2)(i); *e.g.*, *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 516 (1977).

RULES OF PRACTICE: IMMEDIATE EFFECTIVENESS REVIEW

The NRC's rules provide one extra step in the oversight of licensing decisions, the "immediate effectiveness review." To explain, when an Atomic Safety and Licensing Board authorizes the issuance of a license, that decision, like that of a trial court, need not await the completion of all appeals to become effective.

RULES OF PRACTICE: IMMEDIATE EFFECTIVENESS REVIEW

As a rule, the effectiveness review examines the reasonableness of the Licensing Board's decision without reaching any formal and final decision that no further review and revision of the decision could ever be required and without prejudice to later adjudicatory resolution of issues still in controversy.

NRC: SUPERVISORY AUTHORITY

The Commission's "authority to intervene and provide guidance in a pending proceeding is not limited by the terms of 10 C.F.R. 2.786(a) [regulation stating the ordinary practice for review]." *Seabrook*, CLI-77-8, *supra*, 5 NRC at 516. The Commission has inherent supervisory authority over adjudicatory proceedings, and "there is every reason why the Commission should be empowered to step into a proceeding. . . ." *United States Energy Research and Development Administration* (Clinch River Breeder Reactor Plant), CLI-76-13, 4 NRC 67, 75-76 (1976), *quoted in Seabrook*, CLI-77-8, *supra*, 5 NRC at 516.

RULES OF PRACTICE: MANDATORY RELIEF

Commission rules do not expressly provide for immediate mandatory relief. However, the Commission would be willing to grant relief of this sort in appropriate circumstances. Relief in the nature of mandamus is a drastic remedy, warranted only in unusual circumstances and only where there is a failure to obey a clear direction to perform a nondiscretionary duty and where no other relief is available.

RULES OF PRACTICE: LICENSE AUTHORIZATION (PENDING MATTERS)

A review of NRC rules and prior NRC decisions does not suggest the existence of any clear, nondiscretionary duty on the part of the Licensing Board to delay full-power authorization pending completion of remand proceedings or resolution of all pending matters. In fact, a review of prior precedents indicates past examples of where, as here, permits or licenses were authorized while

remand proceedings and motions were still pending — *Seabrook*, CLI-77-8, *supra*, 5 NRC at 521; *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 159-60, 169-70 (1978); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-84-53, 20 NRC 1531 (1984). *See also Oystershell Alliance v. NRC*, 800 F.2d 1201 (D.C. Cir. 1986) (per curiam) upholding issuance of a full-power license notwithstanding pendency of motions to reopen.

RULES OF PRACTICE: LICENSE AUTHORIZATION (PENDING MATTERS)

Where there is a remand or pending motion, the matter of license or permit issuance must be considered on a case-by-case basis.

RULES OF PRACTICE: LICENSE AUTHORIZATION (EMERGENCY PLANNING STANDARDS)

The authority of the Board to authorize issuance of a full-power license notwithstanding pendency of remands and motions relating to emergency planning issues can be traced to a specific provision (10 C.F.R. § 50.47(c)) of the NRC's emergency planning regulations.

RULES OF PRACTICE: LICENSE AUTHORIZATION (EMERGENCY PLANNING STANDARDS)

All issues that are relevant to compliance with 10 C.F.R. § 50.47(b) emergency planning standards are not necessarily material to license issuance because, under 10 C.F.R. § 50.47(c), compliance issues may not be significant and therefore need not be resolved prior to license issuance.

LICENSING BOARD: RESPONSIBILITIES (RESOLUTION OF ISSUES)

Safety issues, including emergency planning issues, can be categorized in terms of the Licensing Board's duty to complete the proceedings itself as opposed to referring the matter to the staff for informal resolution.

LICENSING BOARD: RESPONSIBILITIES (RESOLUTION OF ISSUES)

A licensing board may refer minor matters that in no way pertain to the basic findings necessary for issuance of a license to the Staff for post-hearing resolution. *Consolidated Edison Co. of New York* (Indian Point, Unit 2), CLI-74-23, 7 AEC 947, 951-52 (1974); *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-461, 7 NRC 313, 318 (1978); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-788, 20 NRC 1102, 1159 (1984).

RULES OF PRACTICE: STAY PENDING APPEAL

While parties are invited by our rules to file effectiveness comments under 10 C.F.R. § 2.764, the principal avenue for relief for parties seeking to preclude license issuance pending appeals is to seek a stay under 10 C.F.R. § 2.788.

RULES OF PRACTICE: STAY OF AGENCY ACTION (CRITERIA)

Of the four stay factors, it is well established that "the most crucial [factor] is whether irreparable injury will be incurred by the movant absent a stay." *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-81-27, 14 NRC 795, 797 (1981).

ADJUDICATORY PROCEEDINGS: DUE PROCESS

Commission procedures that permit licensing boards to evaluate whether a remand need block authorization of a license, require all contentions after the original stage to be subject to certain "timeliness" requirements, and allow the Commission to step into a proceeding at any stage to offer guidance to the parties are neither unprecedented nor aberrations; they have been in force for years and have been applied to numerous nuclear power plant licensing proceedings before this one.

NRC: CONSIDERATION OF ECONOMIC MATTERS

The Commission has stated repeatedly and categorically that it will not consider the commitment of resources to a completed plant or other economic factors in its decisionmaking on compliance with emergency planning safety regulations. See, e.g., *Seacoast Anti-Pollution League v. NRC*, 690 F.2d 1025 (D.C. Cir. 1985).

**RULES OF PRACTICE: STAY OF AGENCY ACTION
(IRREPARABLE INJURY; DECOMMISSIONING FUNDS)**

Available funding will approximate what, under the Commission's decommissioning rules, would be required for decommissioning of a plant that had been in operation for a long period of time and that sum is found sufficient to offset any claim of irreparable injury from lack of decommissioning funds.

**RULES OF PRACTICE: STAY OF AGENCY ACTION
(IRREPARABLE INJURY)**

It is well settled that speculation about occurrence of a nuclear accident does not constitute the kind of irreparable injury that would warrant a stay of full-power operations. *E.g., Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 748 n.20 (1985), *citing New York v. NRC*, 550 F.2d 745, 756-57 (2d Cir. 1977), and *Virginia Sunshine Alliance v. Hendrie*, 477 F. Supp. 68, 70 (D.D.C. 1979).

RULES OF PRACTICE: STAY OF AGENCY ACTION

When the licensing board has authorized and the Commission's immediate effectiveness review has favored license issuance, the grant of a stay would be contrary to the public interest which underlies the mandate to the Commission in 5 U.S.C. § 558 to complete license application proceedings within a reasonable time with due regard for the rights of the parties.

MEMORANDUM AND ORDER

I. INTRODUCTION

In the decision that follows, we decide to allow the Atomic Safety and Licensing Board's authorization of a full-power license for the Seabrook Nuclear Power Station Unit 1 to become effective under our regulations during the pendency of further appeals and other administrative proceedings.

The complicated procedural context in which this decision takes place requires some explanation, for we act today both in an adjudicatory and a nonadjudicatory capacity. As is well known, Seabrook is an adjudicatory proceeding, in which contested issues are resolved in court-type proceedings through a hierarchy of administrative tribunals: the Atomic Safety and Licensing Board, the Atomic Safety and Licensing Appeal Board, and ultimately the Commission.

Those proceedings have been extensive, having commenced in the 1970s with applications to *build* Seabrook, and are continuing into the 1990s. The Seabrook *operating* license has been in litigation since 1981. The evidentiary hearings on emergency planning issues alone, which began in 1986, totalled over 100 days and fill transcript pages numbered in the tens of thousands. Where, as in these proceedings, issues are contested, the Commission acts in a quasi-judicial role and is therefore barred from communicating with the NRC Staff (or any other party) relevant to the merits of the proceeding except upon the record of the proceeding, with reasonable prior notice to all parties.

Operating license hearings do not address all issues germane to a facility's readiness to operate, however, only those raised by a party to the proceeding. (The rules also establish standards for the admission of contentions.) To the extent that matters pertinent to the licensing decision are not part of the adjudication, the responsibility for their resolution lies with the NRC's technical staff. When the NRC Staff acts in this capacity, as a regulatory decisionmaker, it is subject to the supervisory authority of the Commission, and the restrictions that attend adjudicatory decisionmaking do not apply.

The NRC's rules provide one extra step in the oversight of licensing decisions, the "immediate effectiveness review." To explain, when an Atomic Safety and Licensing Board authorizes the issuance of a license, that decision, like that of a trial court, need not await the completion of all appeals to become effective. (As with courts, the Commission's adjudicatory procedures allow a party to file a motion for a stay of an adverse decision.) Where the Commission's procedures differ from those of courts is that regardless of whether a stay request is filed, the Commission also conducts an "immediate effectiveness" review under 10 C.F.R. § 2.764, to determine whether the Licensing Board's decision should be allowed to take effect. The "immediate effectiveness" review is largely informal, relying on the existing adjudicatory record and parties' written comments, and it is without prejudice to later adjudicatory resolution of issues still in controversy. As a rule, the effectiveness review examines the reasonableness of the Licensing Board's decision without reaching any formal and final decision that no further review and revision of the decision could ever be required.

Today's decision therefore includes both adjudicatory and nonadjudicatory elements, divided into three sections following this one. In Section II, we address, in an adjudicatory context, motions to revoke or vacate the Licensing Board's authorization of an operating license, and we deny those motions. In Section III, we conduct the "immediate effectiveness review" of contested issues described above. We also discuss, in a nonadjudicatory context, certain uncontested issues. We decide in favor of license issuance. Finally, in Section IV, we rule on stay motions, again in an adjudicatory context, and find that the moving parties have not demonstrated their entitlement to a stay.

Today we also respond by separate opinion (CLI-90-2, 31 NRC 197) to an emergency planning question certified to us on October 11, 1989, by the Appeal Board in ALAB-922, 30 NRC 247 (1989); that response, which is in an adjudicatory context, forms an important part of conclusions regarding emergency planning for Seabrook.

In sum, our action today is to allow the Licensing Board's decisions to take effect, and thus to permit the licensing of the Seabrook plant — with, however, the recognition that administrative appeal processes (in which later review of the Licensing Board's decision will take place) will continue.

II. MOTIONS TO REVOKE OR VACATE THE LICENSING BOARD'S DECISION

A. Background

1. *Procedural Setting*

All contested issues in the adjudicatory proceeding on the application for a full-power license for Seabrook have now been finally resolved by the Commission, except for issues regarding emergency planning.¹ The offsite emergency planning portion of the proceeding was bifurcated in order to commence hearings on the emergency plan for the New Hampshire portion of the plume exposure pathway emergency planning zone (EPZ), which had earlier been developed by the state of New Hampshire and submitted for Federal Emergency Management Agency (FEMA) review, without waiting for submittal and review of the plan for the Massachusetts portion of the EPZ — the Seabrook Plan for Massachusetts Communities (SPMC). A later hearing was held on the SPMC, which was developed and submitted by the utility in the absence of a willingness of Massachusetts' state and local governments to provide such a plan.² The hearing on the SPMC was also combined with a hearing on

¹ The active parties to the emergency planning phase of the proceeding are the Applicants, of which Public Service Company of New Hampshire (PSNH) is the lead owner, the NRC Staff (Staff), and Intervenor: the Attorney General of New Hampshire, the Attorney General of the Commonwealth of Massachusetts (MassAG), the Seacoast Anti-Pollution League (SAPL), the New England Coalition on Nuclear Pollution (NECNP), the Massachusetts towns of Amesbury, Newbury, Salisbury, and the City of Newburyport (CON) and the New Hampshire towns of Hampton (TOH), Hampton Falls, South Hampton, Rye, and Kensington. Hereinafter, the term "Intervenor" will be used for convenience to refer to group positions including MassAG, SAPL, NECNP, and others opposing the license, even though they do not specifically include all intervening parties.

² In addition, one discrete issue was tried by the so-called "onsite" Board which had considered the adequacy of Applicants' onsite emergency planning as a part of the low-power decision. That issue dealt with the adequacy of the Vehicular Alert Notification System that Applicants provided in light of their inability to rely on local siren systems. The issue was decided in favor of license issuance. LBP-89-17, 29 NRC 519 (1989). The Appeal Board is presently considering Intervenor's appeal of this issue.

contentions submitted as a result of the full-participation exercise conducted in June 1988.

On December 30, 1988, the Licensing Board issued a partial initial decision finding that the New Hampshire Radiological Emergency Response Plan (NHRERP) satisfied NRC regulations and provided reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency (NHRERP decision).³ LBP-88-32, 28 NRC 667 (1988). Appeals were taken from that decision and were briefed and argued before the Appeal Board while the proceedings on the SPMC and on the June 1988 exercise were ongoing.

In mid-October 1989, in the course of reviewing the NHRERP decision, the Appeal Board certified a question to the Commission reflecting uncertainty on the part of the Appeal Board on the standard to be applied in judging emergency planning matters. ALAB-922, *supra*, 30 NRC at 259. (As previously noted, the Commission responds to that question today in a separate opinion.) The Appeal Board followed the certification with a decision on November 7, 1989, disposing of certain appeals from the Licensing Board's NHRERP order. ALAB-924, 30 NRC 331 (1989). ALAB-924 affirmed the NHRERP decision on all but four of the issues taken up, and on those it reversed and remanded. Two days thereafter the Licensing Board issued a 571-page opinion detailing its findings and rulings on the SPMC and exercise litigation (SPMC decision). LBP-89-32, 30 NRC 375 (1989). In sum, the Board found that the requisite reasonable assurance was provided by the SPMC and also resolved the exercise contentions in favor of license issuance. In the concluding pages of that order the Board stated:

13.8. Upon the issuance of LBP-88-32 and the issuance of this Partial Initial Decision, this Board would have decided all issues remaining in controversy in the Seabrook operating license proceeding. However, on November 7, 1989, the Appeal Board remanded to this Board certain issues decided in LBP-88-32 with respect to the NHRERP. [*citing* ALAB-924].

13.9. The Board has carefully read ALAB-924, evaluated the remanded issues, and studied the Appeal Board's directions to this Board. We conclude that those issues and directions do not preclude the immediate issuance of an operating license for the Seabrook Station.⁸⁷

⁸⁷ The Board will issue a memorandum following the issuance of this Partial Initial Decision explaining why ALAB-924 does not preclude the issuance of an operating license. Our explanations will include for example, the observation that the remanded issues do not involve significant safety or regulatory matters when considered in the context of the record of the NHRERP proceeding; our ultimate conclusions that the NHRERP provides reasonable assurance that adequate protective measures can and will be taken are not changed; the record of the NHRERP proceeding need not be reopened to resolve some inconsistencies and voids found by the Appeal Board, and that any needed implementing actions can be readily and

³ The Board retained jurisdiction over an issue relating to evacuation time estimates for later resolution. It resolved this issue in LBP-89-32.

promptly taken. We shall also explain why the pendency of several motions to submit new contentions does not preclude the issuance of the operating license.

LBP-89-32, *supra*, 30 NRC at 651.

Without delay, Intervenors MassAG, SAPL, and NECNP moved the Appeal Board to vacate those portions of the SPMC decision which authorized the license.⁴ On November 14 the Appeal Board said that "consideration of intervenors' motion can and should await the Licensing Board's promised explanation of the reasons why licensing authorization is appropriate, which undoubtedly will include some explanation of the relevance of 10 C.F.R. § 50.47(c)(1)." Appeal Board Order (unpublished), November 14, 1989 at 2. The Appeal Board established a schedule consistent with that view. By order of November 16, 1989, the Commission announced that "[a]lthough the Appeal Board [had] . . . set forth a schedule for future filings on intervenors' motion, that motion will be decided by the Commission." Commission Order of November 16, 1989, at 2.⁵ In the same order the Commission said that the Commission itself would consider all applications for a stay of effectiveness of LBP-89-32. *Id.* (We address later in this section Intervenors' challenges to this procedure.) On November 20, 1989, the Licensing Board issued a supplemental decision containing detailed findings in support of its earlier conclusion that the four remanded issues did not prevent authorization of a full-power license. LBP-89-33, 30 NRC 656 (1989).

On December 1, 1989, Intervenors filed their 82-page supplemental motion and memorandum in support of their motion to revoke or vacate the license authorization.

2. *Positions of the Parties*

Seeking revocation or vacation of LBP-89-32's authorization of license issuance, Intervenors essentially argue that the Appeal Board's reversal and remand in ALAB-924 divested the Licensing Board of power to authorize a license and that Intervenors have rights to a hearing on the remanded matters *before* a license can issue. In addition, they argue that the Licensing Board acted illegally in not awaiting the resolution of other pending matters before authorizing a license. Those matters include motions seeking to litigate contentions on the September 27, 1989 onsite exercise (onsite exercise contention) and on the adequacy of the emergency notification system (EBS contention); the Commission's pending response on the question certified in ALAB-922 (certified question), and

⁴The motion was filed with the Appeal Board on November 9, 1989; appeals of the Licensing Board's findings with respect to the SPMC and exercise have been taken.

⁵By motion dated November 17, 1989, Intervenors sought reconsideration of the Commission's November 16 order. The motion is hereby denied except insofar as the Commission has previously granted portions of it.

the Intervenor's request for hearings on any decisions under § 50.47(c). Intervenor's also assert that the Licensing Board erred in not conforming its SPMC decision to ALAB-924 in two particulars — need for agreements with teachers and need for individual evacuation time estimates for special facilities — where Intervenor's say they made identical claims of deficiencies in both the hearing on the NHRERP and the hearing on the SPMC and had been successful before the Appeal Board regarding the NHRERP. They also allege that the assumption of jurisdiction by the Commission over Intervenor's motion to vacate was legal error.

The Applicants argue that the Appeal Board's remand did not *per se* preclude license issuance. They also argue that even were the Appeal Board correct in ordering the remand on each of the four matters, a license can still properly issue pursuant to § 50.47(c)(1). Finally, they argue that the Appeal Board erred in requiring the remands.⁶

The Staff also counters Intervenor's arguments by stating that the Intervenor's mischaracterize the remand and the requirements placed on the Licensing Board by the Appeal Board. The Staff maintains that in cases where the Appeal Board has found that further hearings are required, its mandate has been explicit and that the Licensing Board here reasonably and correctly "inferred that the remand order included 'traditional broad discretion' in resolving the issues, including a determination of whether the remanded issues were amenable to post-licensing resolution." Staff Response to Motion to Vacate, dated December 12, 1989, at 10, *citing* LBP-89-33 at 3-6 [30 NRC at 657-59]. They also argue that the state of the record is sufficient to support the Licensing Board's finding of "reasonable assurance" and that § 50.47(c) specifically recognizes that a license may be granted even in the face of some deficiencies so long as they are not significant. Staff further argues that the "fundamental flaw" standard that is applied to contentions on emergency planning exercises is applicable to any decision on emergency planning, "for 'only fundamental flaws are material licensing issues.'" NRC Staff Response to Motion to Vacate, at 18, *citing Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-86-11, 23 NRC 577, 581 (1986).

B. Commission Decision

1. Commission's Authority to Make This Decision

At the outset it is worth emphasizing that the Commission has acted properly and in accord with long-standing practice in electing to consider the instant

⁶ Applicants have petitioned the Commission for review of ALAB-924, as have Intervenor's. The Commission has not yet decided whether to accept review.

motion as well as Seabrook stay motions itself, as opposed to delegating such decisional authority to the Appeal Board. The Appeal Board acts only on authority delegated by the Commission; the Commission is responsible for its adjudicatory boards; and by regulation and a long line of case precedent, the Commission has explicitly retained supervisory power to step in at any stage of a proceeding to decide any matter itself.⁷ The Commission's "authority to intervene and provide guidance in a pending proceeding is not limited by the terms of 10 C.F.R. § 2.786(a) [regulation stating the ordinary practice for review]." 5 NRC at 516. The Commission has inherent supervisory authority over adjudicatory proceedings, and "there is every reason why the Commission should be empowered to step into a proceeding. . . ."⁸

The motivation for the Commission to reserve matters to itself can derive from practicality and the need to avoid confusion where matters before the Appeal Board may be so intertwined with matters before the Commission that they should be decided together. Such a circumstance occurred in the low-power license stage of this very proceeding. See CLI-88-10, 28 NRC 573, 601 (1988) (directing that any stay motions should be lodged with the Commission itself). A like motivation governed the Commission's action here.

2. *The Appropriateness of Relief in the Nature of Mandamus*

Intervenors characterize the "immediate mandatory relief" they seek as "essentially a writ of mandamus."⁹ Supplemental Motion at 4. As Intervenors note, our rules do not expressly provide for such a mandate. Nonetheless, we would be willing to grant relief of this sort in appropriate circumstances. Borrowing from judicial case law on mandamus, it is clear that such "drastic" relief is warranted only in unusual circumstances. *In Re Thornburgh*, 869 F.2d 1503, 1508 (D.C. Cir. 1989). Moreover, relief in the nature of mandamus is available only where there is a failure to obey a clear direction to perform a nondiscretionary duty and where no other relief is available. *Garem v. Heckler*, 746 F.2d 844, 852 (D.C. Cir. 1984). The issue before us then is whether, as a result of the decision in ALAB-924 and the pendency of the various other cited matters, the Licensing Board had a clear, nondiscretionary duty to withhold any

⁷ See 10 C.F.R. §§ 2.764(e)(3)(i) and (f)(2)(i); e.g., *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 516 (1977).

⁸ *United States Energy Research and Development Administration* (Clinch River Breeder Reactor Plant), CLI-76-13, 4 NRC 67, 75-76 (1976), quoted in *Seabrook*, CLI-77-8, *supra*, 5 NRC at 516.

⁹ The Commission grants Intervenors' "Motion for Leave to File a Supplemental Brief in Support of their November 13 and December 1, 1989 Motions for Mandatory Relief," dated January 16, 1990. The Commission has considered the brief in reaching this Decision.

full-power license authorization. For the reasons that follow we find that it did not and deny the relief requested.

a. First of all, nothing in ALAB-924 by its terms precludes a full-power authorization pending completion of the remand proceedings. The four matters were reversed and remanded to the Licensing Board for further actions consistent with the opinion, ALAB-924, *supra*, 30 NRC at 373, but no specific directions were given with regard to the effect of the opinion on a possible future license authorization.

Second, a review of NRC rules and prior NRC decisions does not suggest the existence of any clear, nondiscretionary duty on the part of the Licensing Board to delay full-power authorization pending completion of remand proceedings or resolution of all pending matters. In fact, a review of prior precedents indicates past examples of where, as here, permits or licenses were authorized while remand proceedings and motions were still pending.¹⁰ Prior practice suggests that where there is a remand or pending motion the matter of license or permit issuance must be considered on a case-by-case basis.

Third, and most important for this case, the authority of the Board to authorize issuance of a full-power license notwithstanding pendency of remands and motions relating to emergency planning issues can be traced to a specific provision of the NRC's emergency planning regulations. Under § 50.47(c), failure to meet offsite emergency planning standards "may result in the Commission declining to issue an operating license" (emphasis added), but does not require this result because an applicant may still show, *inter alia*, that the deficiencies "are not significant for the plant in question." Accordingly, if a finding can be made that an emergency planning deficiency determined to exist on appeal is not significant, or that an emergency planning issue left unresolved as a result of a pending remand or motion is not significant, then a full-power license can still be authorized. In effect, § 50.47(c) creates two classes of litigable emergency planning issues — those "significant" issues that must be addressed fully and resolved favorably by the Licensing Board before full-power licensing, and those that are not significant and that can be resolved by the licensing board after license issuance.

We therefore reject the fundamental premise of Intervenor's argument that the issues remanded in ALAB-924 must be considered material factors to license issuance and therefore must be resolved completely on their merits before license issuance. We agree that the remanded issues are relevant to

¹⁰ *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 521 (1977); *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 159-60, 169-70 (1978); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-84-53, 20 NRC 1531 (1984). See also *Oystershell Alliance v. NRC*, 800 F.2d 1201 (D.C. Cir. 1986) (*per curiam*) upholding issuance of a full-power license notwithstanding pendency of motions to reopen.

the licensing proceeding as a whole, since a positive resolution of them will support a finding of compliance with 10 C.F.R. § 50.47(b) emergency planning standards and therefore support license issuance. But all issues that are relevant to compliance with § 50.47(b) emergency planning standards are not necessarily material to license issuance because, under § 50.47(c), compliance issues may not be significant and therefore need not be resolved prior to license issuance.¹¹

b. With particular regard for the pendency of the motions to reopen on the onsite exercise and on the EBS contention, we read the Licensing Board's decision in LBP-89-33 as contemplating a full-power license authorization so that the Commission could commence its own review of full-power licensing under 10 C.F.R. § 2.764 (*see* LBP-89-33, *supra*, 30 NRC at 674), but also recognizing that its rulings on these motions could require that the full-power license authorization be vacated. The Board's decision need not be read, as Intervenor would have it, as holding necessarily that there would be no ruling on the pending motions until after license issuance. In any event, Intervenor's complaints about the possibility of license issuance during the pendency of these motions is now moot since both motions have now been decided by the Licensing Board. Since we respond to the certified question today, Intervenor's concern about license issuance while this matter is pending is moot as well.¹²

In sum, we hold that there was no nondiscretionary legal duty on the part of the Board to withhold full-power authorization because of the decision in ALAB-924, and that issues raised by Intervenor pertaining to the pendency of the two motions to reopen and the certified question are now moot in any event.

In this opinion we are treating the decision in LBP-89-33 as, in effect, a supplemental initial decision, and including it as part of our effectiveness review under § 2.764. In this context we will address, in some detail, the reasonableness

¹¹ Safety issues, including emergency planning issues, can also be categorized in terms of the Licensing Board's duty to complete the proceedings itself as opposed to referring the matter to the Staff for informal resolution. A licensing board may refer minor matters that in no way pertain to the basic findings necessary for issuance of a license to the Staff for post-hearing resolution. *Consolidated Edison Co. of New York* (Indian Point, Unit 2), CLI-74-23, 7 AEC 947, 951-52 (1974); *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-461, 7 NRC 313, 318 (1978); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-788, 20 NRC 1102, 1159 (1984). And, with respect to emergency planning, the licensing board may accept predictive findings and post-hearing verification of the formulation and implementation of emergency plans. *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 494-95 (1986). Completion of the minor details of emergency plans are a proper subject for post-hearing resolution by the NRC Staff. *Kansas Gas and Electric Co.* (Wolf Creek Generating Station, Unit 1), LBP-84-26, 20 NRC 53, 61-62 (1984).

¹² Intervenor's concerns about the need to conform the Board's SPMC decision to ALAB-924 and request for hearing on § 50.47(c) issues are addressed later in this opinion in Sections III.A.1 and III.A.3.

of that decision, including the application of 10 C.F.R. § 50.47(c) to each of the four remanded issues.¹³

III. IMMEDIATE EFFECTIVENESS REVIEW

A. Effectiveness Review of LBP-89-33 (Supplemental Memorandum)

1. *Letters of Agreement*

Among other things, emergency response plans must ensure that arrangements have been made for "requesting and effectively using assistance resources." 10 C.F.R. § 50.47(b)(3). *See also* 10 C.F.R. § 50.47(b)(1). Associated regulatory guidance provides:

Each organization shall identify nuclear and other facilities, organizations or individuals which can be relied upon in an emergency to provide assistance. Such assistance shall be identified and supported by appropriate letters of agreement.

NUREG-0654/FEMA-REP-1 (Rev. 1), "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (November 1980), II.C.4. In Section 2 of LBP-88-32 the Licensing Board considered various challenges to Letters of Agreement (LOAs) obtained by the Applicants pursuant to this regulatory guidance. As a preliminary matter, the Board restated its earlier ruling¹⁴ that Applicants do not need to sign LOAs with, *inter alia*, schools and school personnel because they are "recipients" of evacuation services and LOAs are required only for "providers" of such services. LBP-88-32, *supra*, 28 NRC at 673.

In Section 7 of LBP-88-32 the Licensing Board considered the general issue of human behavior in emergencies including contentions asserting that teachers

¹³ On November 15, 1989, Intervenor filed a request for a hearing to the extent a full-power license authorization might be based on 10 C.F.R. § 50.47(c)(1). Since we are clearly basing the license authorization on this provision of the Commission's rules, the hearing request must be addressed by us.

There is no doubt that Intervenor has been heard before the Commission on whether the matters reversed and remanded by ALAB-924 are significant and therefore must delay license issuance. These views have been expressed forcefully and at great length in the various written papers filed with us. We find that the written papers before us are adequate for us to address the reasonableness of the Board's conclusions. Further, neither we nor the Licensing Board have relied on facts outside the evidentiary record in reaching conclusions about significance; no new evidence was adduced or considered. And Intervenor's hearing request fails to suggest how the existing record may be inadequate and fails to indicate whether, or if so, in what particulars they will offer additional evidence. Given this, we see no need for additional evidentiary hearings on § 50.47(c) significance issues. Any unfairness that may have resulted from the Board not having invited comment before making its findings on significance has been removed by the written pleadings, which were filed subsequent to the Board's findings, and our careful consideration of these pleadings.

Accordingly, if construed as requesting an opportunity to be heard, Intervenor's November 15, 1989 motion is now moot; construed as a request for additional evidentiary hearings, the request is denied.

¹⁴ Memorandum and Order, May 21, 1986 (unpublished).

would abandon their normal roles in the face of a radiological emergency. In the course of discussing teacher roles during an emergency, the Board made the following observations:

7.9. In general terms, the teachers would have very simple responsibilities in the event of an emergency requiring early dismissal and evacuation. They would be responsible for accounting for the children under their direct care, taking them to a central place in the school (cafeteria, for example) for accountability, and going with them on school buses to their evacuation destination. *E.g.*, Tr. 4014.

7.10. According to Applicants, teachers are not being called upon to do anything under the plan that they would not normally do in any emergency, or for that matter, on any regular day; they are viewed by the planners as recipients of services rather than as emergency workers or providers of services. Tr. 3356-57; *see* FEMA Dir., ff. Tr. 4501, at 48. However, we believe that, to the extent that teachers would be expected to accompany pupils in an evacuation rather than leaving in their own transportation, the teachers should be regarded as service providers.

28 NRC at 729-30. The Board did not, however, refer back to its earlier discussion of LOAs nor indicate that LOAs might be needed from teachers.

The Appeal Board approved the Licensing Board's distinction between providers and recipients as being a sensible basis for determining the need for LOAs. ALAB-924, *supra*, 30 NRC at 342. The distinction, in the view of the Appeal Board, "recognizes that LOAs need not be sought from everyone involved in the emergency response process; rather, they can be limited to those who contribute assistance services." *Id.* However, the Appeal Board believed, as argued by Intervenor, that the Licensing Board's finding, in the Human Behavior section of its decision, that teachers are "service providers" to the extent they would be expected to accompany pupils in an evacuation was inconsistent with its earlier ruling that teachers were "recipients" rather than "providers" of services. *Id.* at 342-43.

The Appeal Board examined the Licensing Board's reasoning in terming teachers "service providers" and found that the Licensing Board had looked to what teachers are normally expected to do; i.e., to the extent that teachers are being asked to do something not within the scope of their normal duties, they cease to be "recipients" and become "providers." *Id.* The Appeal Board then addressed the NRC Staff's argument that teachers, in being asked to accompany children on buses, were not being asked "to do anything other than what they normally do — continue to supervise and assist the children who have been entrusted to their care, which, the evidence showed, is a duty teachers have historically performed in both normal and emergency situations" NRC Staff Brief at 7. While the Appeal Board indicated that the Staff's conclusion may be correct, it rejected the evidence supporting that conclusion (which showed that school personnel do not generally abandon their role as student custodians in times of emergency) as not "address[ing] the issue of whether

school personnel acting in that role are ordinarily expected to accompany their students in an evacuation”¹⁵ ALAB-924, *supra*, 30 NRC at 343. Thus the Appeal Board remanded this matter for further explanation “with the direction that it resolve the existing inconsistency in its interpretations of the role of school personnel in an evacuation and determine whether any LOAs should be obtained from school personnel.” *Id.* at 343-44.

In its supplementary memorandum, the Licensing Board explained the context of the apparent inconsistency: In the LOA section of its decision the term “service provider” “has a special regulatory meaning . . . flowing from NUREG-0654, II.C.4” (LBP-89-33, *supra*, 30 NRC at 661) but in the Human Behavior section of its decision it used the term in the context of determining whether teachers would abandon a particular role — the role of a custodian in evacuating with the children.¹⁶ *See id.* at 660-61. “No party argued, as a human factors consideration, that the likelihood of teachers evacuating with students would be enhanced by LOAs. It was without any thought of the LOA requirements that the Board deemed teachers evacuating with students to be providers of services.” *Id.* at 661.

The Board did not view this matter as a significant safety issue because it remained convinced “that sufficient numbers of school teachers will accompany school buses in those cases where they are needed” based on its “confidence in the inherent dedication and sense of responsibility of school personnel.” *Id.* at 660. Thus the remanded issue did not cause the Board to change its “ultimate conclusion that schoolchildren can and will be safely evacuated.” *Id.* at 661.

Commission Conclusion

We believe that the Board’s decision that this remanded issue does not raise a significant substantive issue regarding emergency planning adequacy is a reasonable one.¹⁷ First, it may well be that the Licensing Board has now provided the explanation sought by the Appeal Board. Second, it does not appear that

¹⁵ While the evidence proffered by the Staff may not be “definitive” (*see* ALAB-924, *supra*, 30 NRC at 343) as to this issue, it is not immediately clear to us why it is not sufficiently probative as to resolve this issue.

¹⁶ The Licensing Board noted that, contrary to the Appeal Board’s understanding (*see* ALAB-924, *supra*, 30 NRC at 343 n.24), the Board did not intend to limit its findings with respect to role abandonment to the roles of teachers in accounting for their students and seeing them to the bus. *See* LBP-89-33, *supra*, 30 NRC at 660. Rather, those findings do not “stop at the school bus steps. If needed, school personnel will stay with their charges until they are safe.” *Id.* The Board appears to be saying that the distinction it drew between teachers in the role of accounting for students and seeing them to the buses and in the role of riding the buses was meant as a distinction between what all teachers are expected to do and what only some teachers are expected to do (the rest being free to depart in their own vehicles). The distinction was not meant as a conclusion that the latter teachers were transformed into “service providers” within the regulatory meaning of NUREG-0654, II.C.4.

¹⁷ We address the significance of this issue (and the three other remanded issues as well) both in the context of our “consideration of the gravity of the substantive issue,” 10 C.F.R. § 2.764(f)(2)(i), and in the context of 10 C.F.R. § 50.47(c).

there is any reason why the evacuation of schoolchildren will be delayed or will not occur even if *no* teachers or other school personnel agree to accompany the children on evacuation buses. The Licensing Board noted that Richard Strome, then New Hampshire's Director of Emergency Management, while hoping that teachers would participate, stated that their participation is not "key to the process" and observed that schoolchildren usually get on school buses without assistance and that teachers do not regularly travel on the buses. *See* LBP-89-33, *supra*, 30 NRC at 660. Finally, while the Appeal Board was unwilling to accept historical testimony showing that teachers do not abandon schoolchildren in emergencies in support of what teachers "normally" are expected to do in an evacuation, we think this testimony at least supports the view that even if riding the bus in an emergency is not a normal duty, sufficient school personnel will in fact do this if not doing it would endanger the children.¹⁸

Because it may well be that the Licensing Board has now provided the clarification sought by the Appeal Board, and because the matter does not appear to be significant in any event, we see no need at this point to "conform" anything in the Licensing Board's SPMC decision to ALAB-924.

2. *Special-Needs Survey*

Emergency planning includes ensuring that adequate transportation resources and related support services are available to evacuate the transit-dependent population in the EPZ. *See* 10 C.F.R. § 50.47(b)(8); NUREG-0654, II.J.10.d. This population includes those with "special needs" for transportation services: homebound physically impaired persons and individuals likely to be without transportation. In April 1986, the Licensing Board admitted for hearing two contentions sponsored by SAPL which challenged the adequacy of the means used in the NHRERP for identifying the special-needs population.¹⁹ Subsequently the Licensing Board granted Applicants' motion for partial summary disposition with respect to these contentions insofar as they asserted that adequate procedures for identifying persons with special needs do not exist. *See* Memorandum and Order of November 4, 1986 (unpublished), at 17.

Applicants had moved for summary disposition on the basis of the employment of a new method for determining the special-needs population: a Special-

¹⁸ *See* LBP-88-32, *supra*, 28 NRC at 740-41.

¹⁹ *See* Memorandum and Order of April 29, 1986 (unpublished). At the time SAPL submitted its contentions the NHRERP based the number of individuals without their own automobile transportation on an estimate rather than on a survey by which such individuals would identify themselves. No physically impaired persons had been identified, but the NHRERP assumed one special-needs vehicle would be needed for each town. *See* SAPL's Second Supplemental Petition for Leave to Intervene (February 21, 1986); Applicants' Response to Off-Site EP Contentions (March 5, 1986).

Needs Survey conducted by Applicants during the last 2 weeks of March 1986.²⁰ In an affidavit attached to their motion, Richard H. Strome, Director of the New Hampshire Civil Defense Agency (NHODA), described the new method and expressed his opinion that reasonable assurance exists that special-needs individuals can and will be identified through utilization of the survey.²¹ See Strome Affidavit at 4.

In response to Applicants' motion, SAPL had argued that the survey was inadequate for the purpose of identifying the special-needs population, attaching in support of this claim the Affidavit of Frederick H. Anderson, President of Ideas and Information, Inc., and Director of International Services at International Data Corporation.²² SAPL contended on the basis of the Anderson Affidavit that it had raised genuine issues of material fact as to the adequacy of the survey; in particular, that the survey needed to be supplemented using additional identification techniques, that greater motivation to respond needed to be provided, that the survey should be conducted more frequently than annually, that an outreach program to social service agencies needed to be included, and that the design of the questionnaire needed to be improved to eliminate ambiguity. See SAPL's Response at 17-18.

On appeal, SAPL challenged the Licensing Board's grant of summary disposition. The Appeal Board, upon reviewing the filings before the lower board, determined that issues of material fact concerning the adequacy of the survey, which it identified as "issues relating to the methodology utilized to identify the special needs population, survey design, accuracy verification, response motivation, and update procedures," were indeed present. ALAB-924, *supra*, 30 NRC at 346. Moreover, the Appeal Board rejected the only rationale given by the Licensing Board for its decision; i.e., that the "additional requirements" sought by SAPL "would fall into the category of 'extraordinary

²⁰ See Applicants' Motion for Partial Summary Disposition of South Hampton Contention No. 8, NECNP Contention NHLP-4 and SAPL Contentions 18 and 25 (May 20, 1986).

²¹ Mr. Strome stated, *inter alia*, that the survey questionnaire was mailed to EPZ residents based on utility customer lists and was distributed by several social service and local municipal agencies; that the questionnaire requested information on persons within households who might not be able to comprehend English; that Civil Defense officials would verify responses; that the survey would be conducted annually; and that public information announcements had been and would be made periodically by the NHODA "to inform the public of the distribution of the survey, to encourage responses by persons who may require special assistance, and to provide a means for persons to request survey forms if they may not have received them." Strome Affidavit at 3.

²² See SAPL's Response to Applicants' Motion for Summary Disposition of SAPL Contentions 5, 7, 14, and 17 and Motion for Partial Summary Disposition of SAPL Contentions 18 and 25 (June 9, 1986). Mr. Anderson stated, *inter alia*, that the Strome Affidavit and survey instrument gave no indication: (1) that special-needs individuals who do not receive utility bills, such as those living in apartments or motels, would have been identified; (2) that special-needs individuals not resident in the EPZ in March would have been identified; (3) that potential respondents were given sufficient motivation to respond; (4) that the accuracy of information received had been verified; (5) that various design deficiencies had not confused respondents; (6) that those who read only French, Spanish, or other languages or who do not read at all would have responded; (7) that transients in the area would have been reached; and (8) that the single mailing of the questionnaire would have located even a majority of the special-needs population.

measures' not required by the regulations of this Commission." Memorandum and Order, November 4, 1986, at 16-17.²³ Thus the Appeal Board concluded that the Licensing Board had erred in granting Applicants' summary disposition motion and, accordingly, "remand[ed] the matter of the sufficiency of the 1986 Special Needs Survey for further consideration by the Licensing Board." ALAB-924, *supra*, 30 NRC at 348.

Further, the Appeal Board noted that it would be "premature for us to render any judgment regarding intervenor SAPL's challenges to the Licensing Board's findings concerning availability of adequate numbers of vehicles and drivers" until the Licensing Board had again considered this matter upon remand.²⁴ *Id.* The Appeal Board also noted:

We also are unable in this instance to rely upon the Licensing Board's determination that there is an excess of available evacuation vehicles and drivers, *see* LBP-88-32, 28 NRC at 695, as the foundation for a finding of harmless error. . . . On the present record . . . we have no basis for setting a limit on the uncertainty about the size of the "special needs" population that accrues from the Licensing Board's erroneous summary disposition ruling.

Id. at 348 n.47.²⁵

²³ As the Appeal Board notes (ALAB-924, *supra*, 30 NRC at 346), the Licensing Board did not address the question of whether genuine issues of material fact were present. Instead, the Licensing Board accepted Applicants' argument that the improvements in the survey desired by SAPL constituted "extraordinary measures" within the meaning of the Commission's decision in *Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 536 (1983), *rev'd in part on other grounds*, *GUARD v. NRC*, 753 F.2d 1144 (D.C. Cir. 1985).

²⁴ Before the Licensing Board, SAPL raised various challenges to Applicants' testimony that the NHRERP provided reasonable assurance as to the availability of sufficient buses and drivers to effectuate a complete evacuation of the New Hampshire EPZ. *See* LBP-88-32, *supra*, 28 NRC at 692-94. In particular, SAPL claimed that at the hearing Applicants had revised downward the numbers of buses/drivers that were available. *See id.* at 694. The Board noted that the State had demonstrated that "it is willing to revise its dependence on certain drivers if the State is made aware of their unavailability" and expected "that deficiencies in the driver pool will be provided for through utilization of other resources identified or to be identified by the State." *Id.* at 693-94. Thus the Board did not believe that any uncertainty created by changes in the pool of buses and drivers assigned to assist in an emergency response undermined its confidence that the NHRERP contained reasonable assurance of sufficient transportation resources. SAPL appealed the Board's resolution of the issue of bus or driver availability. SAPL Brief at 37-39.

²⁵ In the text of LBP-88-32 cited by the Appeal Board, the Licensing Board considers an Intervenor argument that one particular segment of the special-needs population, transients without their own transportation, was not adequately provided with transportation for evacuation. *See* 28 NRC at 694. Intervenor claimed that the adequacy of transportation provisions for transit-dependent transients could not be made without having an exact estimate of that population and that there was no such exact estimate because the Special-Needs Survey did not identify individuals who may be dropped off by bus or who hitchhiked to the beach, unless they were associated with a hotel responding to the survey. *Id.* The Licensing Board noted Applicants' testimony (1) that, based upon the work of KLD Associates (the preparer of the ETE for Seabrook), few transients would require transportation assistance, and (2) that Applicants "had added nine buses to the beach area to address the uncertainties in the number of individuals in this population and that they had specifically routed buses along the beach area." *Id.* at 695. The Licensing Board concluded:

Applicants' allocation of transportation resources in excess of that identified as being needed under its Special Needs Survey also supports a finding that there is reasonable assurance that a small population of transit-dependent transients can be adequately evacuated. . . . Based on the number of buses and drivers Applicants identify as being available for evacuation purposes, we also find reasonable assurance that any increase in the estimate of the population of transport-dependent transients can be addressed without major revisions to the plan.

(Continued)

In its Supplementary Memorandum the Licensing Board reviewed the remand decision, the original filings with respect to the summary disposition motion, and information subsequently placed in the record and concluded: (1) that the remanded issues do not present significant safety or regulatory considerations requiring precense adjudication; (2) that its finding that adequate transportation and support services would be available to evacuate the transport-dependent population was not undermined; and (3) that the survey deficiencies, even if ultimately found to be meritorious, are either of no moment or are amenable to relatively simple and timely correction. LBP-89-33, *supra*, 30 NRC at 664.

The Licensing Board's conclusions were premised on the view that "the focus of SAPL's identified concerns regarding the adequacy of the 1986 Special Needs Survey is to fine-tune and broaden rather than replace the methodology employed by the NHCDA to identify special-needs populations." *Id.* at 666. Thus the Board found that SAPL's concerns regarding ambiguities in the design of the questionnaire, the need for motivational language, the frequency of the survey (once a month rather than annually), the need to continuously survey the transient population and the need for testing of the siren system to assist the hearing impaired in determining their need for special notification²⁶ simply went beyond the requirements of the Commission's emergency planning regulations and associated regulatory guidance. *Id.* at 665-66. The Board also noted that SAPL had not "advanced any specific factual bases tending to establish that significant numbers of special-needs individuals or their transportation needs were, in fact, understated or unreported." *Id.* at 665.

The Board did view one issue — the adequacy of the dissemination methodology employed in conducting the survey — as having a "reasonable possibility of requiring a precense hearing and adjudication." *Id.* at 666. However, the Board rejected this conclusion because the NHRERP contains two features in recognition of the fact that any survey will miss a certain number of people: excess transportation resources²⁷ and a mechanism for special-needs individuals who have not been preidentified to make their needs known to emergency re-

Id. The Licensing Board's findings are based on record evidence that the number of buses available for evacuation of the special-needs population is approximately 50% greater than the number of buses required by the survey. See Applicants' Direct Testimony No. 2 (October 21, 1987), ff. Tr. 4228, at 10.

²⁶ See LBP-89-36, 30 NRC 704 (1989), which corrects the Board's misimpression, as expressed in LBP-89-33, that this issue was moot.

²⁷ The Board found that the fact that the survey had been undertaken in March, before the arrival of the summer population, did not present a significant safety or regulatory issue requiring precense adjudication because:

First, any failure to identify summer special-needs individuals is of consequence only in the summer, some 8 months hence. Second, given the NHRERP's allocation of transportation resources equal to 150% of the 1986 identified transit-dependent needs . . . and written commitments indicating the overall availability of approximately 170 more buses than the estimated need (LBP-88-32, 28 NRC at 692), the number of summer transit-dependent individuals would have to be *significant* before our finding that adequate transportation resources will be available can be seriously questioned.

LBP-89-33, *supra*, 30 NRC at 665-66 (citations omitted; emphasis in original).

sponse workers. *Id.* The Board did not believe that the number of unidentified special-needs individuals could be "so large as to render the existing excess transportation resources under the NHRERP inadequate." *Id.*

Commission Conclusion

In reviewing this issue, the Commission finds reasonable the Licensing Board's view that SAPL's concerns with the adequacy of the 1986 Special Needs Survey are primarily in the nature of "fine-tuning" an acceptable methodology of ascertaining special-needs individuals than a contention that the Applicants or the State must begin this task anew due to methodological deficiencies. While the Appeal Board is correct that survey improvements do not amount to "extraordinary measures" within the meaning of the Commission's *San Onofre, supra*, decision, it is also true that for the most part the improvements desired by SAPL appear not to be required under the Commission's regulations and guidance. Particularly in view of the fact that SAPL, in resisting Applicants' summary disposition motion, did not present any evidence tending to show that *any* particular special-needs individuals were missed (as opposed to expert opinion suggesting that some *may* have been missed), we believe that the Licensing Board was reasonable in concluding that this remanded issue did not raise a significant substantive issue regarding emergency planning adequacy.²⁸

However, one aspect of this issue deserves further comment. No survey can guarantee the identification of every transit-dependent individual. In recognition of this, the Licensing Board noted that a common and acceptable approach is to have available both excess transportation resources and a mechanism for special-needs individuals who have not been preidentified to make their needs known to emergency response workers. The Licensing Board observed that the emergency plan included both of these measures. LBP-89-33, *supra*, 30 NRC at 666. On the basis of our effectiveness review, we agree with the Licensing Board that while some special-needs individuals might not be preidentified, that number should not be so large as to render the existing excess transportation resources inadequate. With particular regard for hitchhikers among the peak summer beach population, and beachgoers who are dropped off at the beach by family members or others, we rely on the testimony by Applicants' witness which is to the effect that the number of such people is not significant.²⁹ See Tr. 4252-53 (Oct. 21, 1987). On the basis of this review, we therefore disagree

²⁸ While the nonmoving party, in resisting a summary judgment motion, need not present all the evidence it would introduce at a hearing, it is obliged to support its opposition to summary judgment with evidence that is "significantly probative." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249-50 (1986).

²⁹ We also note that the survey is to be updated annually, and the next update should be done in the summertime. Thus, the problem highlighted by Intervenor's contention that the prior survey was done in March and therefore missed those who would be present only in the summertime can be easily and expeditiously cured.

with the Appeal Board that no limit can be set on the uncertainty about the size of the special-needs population. We believe that the uncertainty is not likely so large as to require more transportation resources than the plan already provides.

3. *Advanced Life Support Patients*

The Commission's regulations require the preparation of "an analysis of the time required to evacuate and for taking other protective actions for various sectors and distances within the plume exposure pathway [emergency planning zone] for transient and permanent populations." 10 C.F.R. Part 50, Appendix E, § IV; *see also* 10 C.F.R. § 50.47(b)(10), NUREG-0654, Appendix 4. As the Licensing Board explained:

The primary purpose for having evacuation time estimates is to assist responsible governmental officials in making informed decisions regarding what protective actions are appropriate in a given radiological emergency in order to maximize dose savings. To make these decisions the government officials must have available to them evacuation time estimates that are realistic appraisals of the minimum period in which, in light of existing local conditions, evacuation could reasonably be accomplished. The nearer to [the] plant the area that might have to be evacuated, the greater the importance of accurate time estimates. *Cincinnati Gas & Electric Co.* (William H. Zimmer Nuclear Power Station, Unit 1), ALAB-727, 17 NRC 760, 770, 771 (1983).

LBP-88-32, *supra*, 28 NRC at 777. The Commission has emphasized that an adequate emergency plan is not required to achieve a preset minimum dose savings or a minimum evacuation time for the EPZ in the event of a serious accident. *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-86-13, 24 NRC 22, 30 (1986).

In LBP-88-32, the Licensing Board approved (subject to conditions not relevant here) the evacuation time estimates (ETEs) prepared for the Seabrook emergency planning zone (EPZ). 28 NRC at 803. In approving these ETEs, the Board rejected the testimony of Intervenor witness Maureen Barrows that the NHRERP had incorrectly estimated the time needed to move a wheelchair nursing home resident from room to evacuation vehicle³⁰ on the following basis:

Intervenors' assumptions concerning evacuation times for each nursing home patient fail to adequately reflect the evacuation time assumptions of the NHRERP. The plan assumes that patients are at the loading point when transportation arrives (NHRERP, Vol. 6, at 11-[21]), not in their beds awaiting pickup as Intervenor argue.

³⁰ Ms. Barrows testified that a time trial for moving a wheelchair nursing home resident from her bed to the place where the evacuation bus would be waiting showed a total time of 5 minutes, 17 seconds as opposed to the estimated time of 15 seconds per resident specified in the NHRERP, Vol. 6, at 11-21. *See* Direct Testimony of Commissioner Maureen Barrows, ff. Tr. 4405, at 2-3.

Id. at 699. Although the Licensing Board addressed Ms. Barrows' testimony, it apparently ignored the testimony of Intervenor witness Joan Pilot who voiced a similar concern with respect to advanced life support (ALS) patients. She testified that it would take from 28 to 60 minutes to move an ALS patient from hospital bed to a stretcher in the same room and that, except for paperwork, it is not possible to begin preparation of an ALS patient for evacuation until the ambulance arrives. *See* Rebuttal Testimony of Joan Pilot, fol. Tr. 7670, at 1-2; Tr. 7674-76.

The Appeal Board found that appropriate planning implementation had been undertaken with respect to specification of the number and type of transport vehicles assigned to evacuate particular special medical facilities. ALAB-924, *supra*, 30 NRC at 350. However, the Appeal Board agreed with Intervenor's concern, based on the testimony of Ms. Pilot, *see supra*, that the preparation time for the evacuation of ALS patients had not been taken into account in the ETEs applicable to this group. *Id.* at 350-52. The Appeal Board noted that the Licensing Board's reason for rejecting the Barrows' testimony with respect to nursing home wheelchair residents — that the NHRERP assumes them to be at the loading point, not in their beds, when evacuation vehicles arrive — is "inconsistent with the direction given in the individual emergency plans for New Hampshire EPZ towns that patients/residents of special facilities will be assembled as (not before) the evacuation vehicles arrive." *Id.* at 351 (emphasis in original). The Appeal Board was concerned about a possible underestimate of ETEs for ALS patients stemming from a failure to consider the necessary preparation time due to

the proximity of several special facilities to the Seabrook plant, as well as the fact that sheltering in large buildings such as these institutions may offer greater protection than that assigned to residential properties, thus making sheltering a more acceptable alternative to evacuation if the evacuation times increase appreciably. . . .

Id. (footnotes omitted).³¹ Thus the Board remanded this issue for resolution by the Licensing Board.³²

³¹ Both the Appeal Board and the Licensing Board appear to have assumed that ALS patients reside at nursing homes. However, Applicants' witness Michael C. Sinclair testified during cross-examination that Applicants had worked with hospital and nursing home personnel in developing their emergency plans as well as the transportation requirements needed to implement those plans and that none of the nursing homes in the EPZ have ALS patients who require ambulance transport. *See* Tr. 4294-95. Thus the record indicates that all ALS patients reside at Exeter and Portsmouth Hospitals which are located, respectively, 7 and 11 miles away from the reactor. NHRERP, Vol. 1, Table 2.6-3.

³² The Appeal Board also noted:

"Correction of the preparation time omission . . . also will ensure that special facility planning conforms to the guidance of NUREG-0654 that evacuation time '[e]stimates for special facilities shall be

(Continued)

In its supplemental memorandum, the Licensing Board explained that the "loading time" in the ETE for the ambulatory and wheelchair nursing home residents is not the same as the ETE for nonambulatory persons such as ALS patients. LBP-89-33, *supra*, 30 NRC at 668-69, 670. Only the ETE for the former is based on the notion that the evacuees will be waiting at the loading point for the transit vehicles to arrive. For ALS patients the loading time in the NHRERP is 40.2 minutes which, in the Board's view, "does not deviate in any significant way from an average of the time Ms. Pilot stated it takes to prepare ALS patients for transportation ($28 + 60 \text{ minutes} / 2 = 44 \text{ minutes}$)."*Id.* at 668-69. Thus the Board found that "[a]n increase of 4 minutes in the ETE would not affect the choice of a protective action recommendation for the ALS patient population as a whole."*Id.* at 669.³³

The Licensing Board also found that the adequacy of the ETE for the ALS population for protective action decisionmaking was further demonstrated by what it perceived to be "an extra margin of time within which ALS patients can be readied for evacuation."*Id.* This "extra margin of time" is provided by the fact that emergency coordinators contact special facilities at the Alert Classification Level to verify their transportation needs, a contact that "effectively provides the staffs of the special facilities with advance notice that an evacuation is being considered."*Id.*³⁴ We note, however, that the Board does

made with consideration for the means of mobilization of equipment and manpower to aid in evacuation' and that '[e]ach special facility shall be treated on an individual basis.' NUREG-0654, App. 4 at 4-9 to 4-10.

ALAB-924, *supra*, 30 NRC at 352 n.71.

³³ The Board's explanation does not appear to be based on a close reading of the NHRERP. Evacuation time estimates for transit operations are found at Volume 6, §11, of the NHRERP. Section 11 contains ETEs for two different categories of the population at special facilities such as nursing homes and hospitals: the ambulatory and the nonambulatory. With respect to ambulatory individuals the NHRERP states:

Studies have shown that passengers can board a bus at headways of 2-4 seconds Thus, if we double these headways to account for elderly or disabled passengers, and allow additional time to walk to the bus, then we estimate that a bus can be fully loaded in about 10 minutes (15 second mean headway for 40 passengers).

NHRERP, Vol. 6, at 11-21. With respect to nonambulatory persons the NHRERP gives an estimate of "0.67 hours" as the time for loading passengers but nowhere explains how this estimate is derived or what activities are encompassed within it. *Id.* at 11-26. Thus the Licensing Board's assumption that this "loading passenger" time includes the "preparation time" of concern to Ms. Pilot is not clearly supported.

Moreover, the Licensing Board also may be in error in grouping the wheelchair residents that were the subject of the Barrows testimony, *see* LBP-89-33, *supra*, 30 NRC at 670, with the "ambulatory" group. The NHRERP explicitly places individuals confined to wheelchairs with the nonambulatory group. NHRERP, Vol. 6, at 11-22. Further, as noted by the Appeal Board, *see* ALAB-924, *supra*, 30 NRC at 351 n.69, the directions given in individual emergency plans for nursing homes and hospitals do contain language indicating that patients/residents will be assembled *as*, and not before, evacuation vehicles arrive. Thus, while there does not appear to be any reason why ambulatory individuals could not be preassembled, these plans, as presently written, are inconsistent with the NHRERP's provisions for ambulatory individuals.

³⁴ At the Alert Level emergency response workers contact special facilities to confirm their needs and notify ambulance operators of potential need in the event that an evacuation is ordered.

not cite any medical testimony in support of the notion that preparation of an ALS patient would be medically appropriate at the Alert Level.³⁵

For the above reasons, the Board does not find any “safety-significant problem outstanding with regard to the transit preparation time for ALS patients.” *Id.* at 670. Moreover, in the view of the Board, “any confusion over the distinction between preparing special-needs persons in anticipation of arriving transportation, and assembling them, can be readily resolved.” *Id.*

Commission Conclusion

On the basis of our effectiveness review, we agree that the issue identified by the Appeal Board — whether the ETEs for nonambulatory individuals found in the NHRERP take into account the amount of time it would take to prepare ALS patients for evacuation — remains unresolved. It is simply not clear that the 40-minute “loading passenger” time found in the NHRERP³⁶ includes this preparation time as the Licensing Board asserts. Nor do we necessarily agree, in the absence of any confirmatory medical testimony, that there is any so-called “extra margin of time.”

Nevertheless, we still view as reasonable the Board’s bottom line conclusion that this remanded issue does not raise a significant substantive issue regarding emergency plan adequacy. The record indicates that ALS patients are found at only two locations: Exeter and Portsmouth Hospitals. Thus it should not be difficult to resolve whether the 40-minute period may indeed include adequate time for preparing an ALS patient for transport, taking the patient to the loading point and loading the patient into the ambulance. If these tasks take longer than 40 minutes, then there will be some “shortfall” in the evacuation time estimate for these patients. We have no reason to believe, however, that this “shortfall” would be significant enough to cause a decisionmaker to recommend sheltering rather than evacuation for either of these facilities.³⁷

³⁵ In fact this “extra margin of time” rationale ignores, without explanation, Ms. Pilot’s testimony that ALS patients cannot be prepared until the ambulances arrive. The Board further confuses this issue by later suggesting that the NHRERP can be improved “by requiring an amendment to the plan (or town plans) to provide for instructions to the staff of special facilities to prepare ALS patients for transportation at the order to evacuate” (emphasis added). LBP-89-33, *supra*, 30 NRC at 670. It is unclear what the “extra margin of time” is if preparation does not begin until the order to evacuate has issued. More fundamentally, the Commission is concerned that preparation of ALS patients for evacuation not begin until it is medically safe to do so.

³⁶ See NHRERP, Vol. 6, at 11-26.

³⁷ While Intervenor’s argue that these facilities may not have sufficient staff to prepare ALS patients simultaneously, thus further lengthening necessary preparation time, *see* Intervenor’s Supplemental Motion at 49 n.34, the NRC Staff points out that “at no time during the lengthy litigation of this issue have Intervenor’s contended that medical facility staffing would be inadequate.” NRC Staff Response to Intervenor’s Motion to Vacate at 31 (emphasis in original).

We note, as Applicants point out, that even should a significantly enlarged ETE make sheltering a preferable protective action response to evacuation in a given circumstance, this is precisely the action the ALS patients would be taking pending their evacuation. *See* Applicants’ Response at 29. Thus the real issue is whether a greatly

(Continued)

Again, on a related ETE issue, the Intervenor has argued the need to conform the Board's SPMC decision to what Intervenor interprets as a holding in ALAB-924 that the Commission's emergency planning rules require that emergency plans include ETEs for each special facility. We do not elevate the Appeal Board's observation about regulatory *guidance* in NUREG-0654 regarding the calculation of ETEs in a footnote in its opinion to a holding that NRC *regulations* require that emergency plans include individualized ETEs for special facilities even where only ETEs for the general population are to be used in making protective action decisions. We find reasonable the Licensing Board's extensive discussion of this issue in the SPMC decision, LBP-89-32, *supra*, 30 NRC at 421-23.

4. Implementing Details for Sheltering the Beach Population

Intervenor argued before the Licensing Board that the NHRERP did not contain adequate provisions for sheltering persons at beach areas near the Seabrook Station. The Board explained that the Commission's emergency planning regulations do not require that sheltering be designated as a protective action at each site but rather that a range of protective actions be developed and incorporated into the emergency plan.³⁸ See LBP-88-32, *supra*, 28 NRC at 770. Similarly, pertinent regulatory guidance "requires an evaluation of the *expected* local protection afforded by sheltering, but does not set standards for that protection or require it." *Id.* (emphasis in original). See NUREG-0654, II.J.10.m. Thus the issue before the Board was whether the State of New Hampshire had given adequate consideration to sheltering as a possible protective action. See LBP-88-32, *supra*, 28 NRC at 771.

Although the preferred protective action for the seasonal beach population is almost always early beach closure or evacuation, the State of New Hampshire is prepared to consider sheltering as a possible recommended action in a very limited number of circumstances:

- A. When sheltering can be predicted to be the most effective option for achieving maximum dose reduction;

increased ETE for ALS patients might make it preferable for this group to remain sheltered even if evacuation of the general population is called for. In the extraordinarily unlikely event that such a decision needs to be made prior to the Licensing Board's resolution of this issue, we believe that the exceedingly small size of this group would make an "ad hoc" ETE estimate feasible and appropriate.

³⁸ 10 C.F.R. § 50.47(b)(10) provides:

(b) The onsite and . . . offsite emergency response plans for nuclear power plant reactors must meet the following standards:

(10) A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

- B. When there are physical impediments to evacuation such as fog, snow, hazardous road and bridge conditions, and highway construction; and
- C. When transients without transportation need sheltering pending evacuation.

Id. at 758-59.³⁹

In examining the State's consideration of sheltering in these circumstances, the Board found that the likelihood that sheltering would afford the maximum dose reduction was very low because a determination to shelter for this reason would require the coincidental occurrence of the following circumstances: (1) no earlier action such as precautionary beach closing has been taken; (2) a peak or close-to-peak beach population exists thereby causing evacuation times to be significantly longer than the duration of the predicted release; and (3) the release is predicted to be one of short duration, without particulates, and projected to arrive at the beach in a short time. *Id.* at 759, 775. Further, the Board credited the testimony of Joseph K. Keller, the FEMA representative, who indicated that the uncertainties involved in predicting the start and duration of a release as well as the meteorological conditions that would bring a release to the beach area in a certain amount of time are considerable and that, in any event, the dose reduction to be expected from shelters available to the beach population is minimal.⁴⁰ *See id.* at 765-68.

³⁹ Implementing detail for use of the sheltering option in the third circumstance — the need for shelter by the approximately 2% of the beach population without transportation when an evacuation is ordered — is not at issue. *See* ALAB-924, *supra*, 30 NRC at 368. The plan that we are discussing today, and on which we are allowing the finding of adequacy to become immediately effective, is the plan as described by the Licensing Board in its NIIERP decision, LBP-88-32, *supra*, 28 NRC at 769-72, and as reviewed by the Appeal Board in ALAB-924. Amendments of this plan since the close of the record before the Licensing Board have not been considered. If changes to the plan are intended, or if the parties believe that the Licensing Board, Appeal Board, or Commission misconstrued the intent of the plan, then appropriate motions should be filed. In light of the foregoing, the Commission denies Intervenor's Motion to Supplement Application for a Stay of LBP-89-32, dated February 14, 1990.

⁴⁰ Mr. Keller testified that while he could construct scenarios where after the fact it would appear that sheltering would have been a more appropriate response than evacuation, in a real event "[y]ou have very little confidence that you can predict with any reliability what the next step is going to be. So the prudent thing to do is . . . to move the people in a 360-degree arc, a radius, within two or two and a half, three miles." Tr. 14242. The following interchange then ensued:

Q. Well, let me ask you this, if you can't move the people prior to the start of the release because there isn't enough warning, might you then be better because you don't know where the plume is going to travel to put them in shelters, and wait and then evacuate them in order to avoid this ground shine component to the greatest extent possible?

A. If the State of New Hampshire had come in with a recommendation or an assertion . . . that the shelters . . . had a shelter factor of .5 or .4, all right. My own personal opinion is, you might have looked at it a little harder.

The State came in [and] said, the average shelter factor in this — of the buildings out here, is about .9 — a 10 percent reduction. That's not enough — I mean, when you have uncertainties in source terms and you have uncertainties in weather conditions, you have uncertainties in the nuclide mix that's likely to be there, this 10 percent reduction is so — is down in the dirt in the error band, it's trivial.

Tr. 14,243.

Since the NHRERP contemplates recommending sheltering in the limited circumstances noted above, the Board considered the shelter available in the area and concluded that enough sheltering exists for the peak or near-peak beach population. *See id.* at 770-72, 775. The Board based its finding upon a shelter survey prepared by Stone & Webster for Applicants and provided by them to the State for use as a resource document as well as site visits to the beach area by the Board.⁴¹ *Id.* at 771. The Board did not, however, require that implementing provisions for the sheltering option be included in the NHRERP. The Board explained:

After reviewing the testimony on the reasons why sheltering is a very low-probability option, particularly Mr. Keller's explanation of the many conditions that must line up before sheltering can be predicted to save doses, the Board is concerned that forcing implementation into the NHRERP would be a mistake. The greatest risk is that the decisionmaker might implement the sheltering option using preset implementing detail without understanding that the potential benefits are not very great and can be readily outweighed by the uncertainties.

Id. at 769. The Board was content to leave any differences on this point to FEMA and the State of New Hampshire to resolve.⁴² The Board concluded that "the absence of implementing detail for sheltering in the NHRERP is not so material as to foreclose a finding by the Board that the NHRERP provides reasonable assurance that adequate protective measures will be taken in the event of a radiological emergency at Seabrook." *Id.*

In ALAB-924, the Appeal Board affirmed the Licensing Board's conclusion that the NHRERP appropriately limited sheltering as a protective action option to very limited circumstances. ALAB-924, *supra*, 30 NRC at 367. However, the Appeal Board believed, contrary to the Licensing Board, that implementing measures needed to be added to the NHRERP given that sheltering the beach population remained a possible option. *See id.* at 368-69. The Appeal Board held that its finding in the *Shoreham* proceeding⁴³ that the probability of implementation of an option was irrelevant in determining whether emergency planning obligations had been satisfied meant that the low probability that sheltering would ever be recommended did not excuse the lack of implementing

⁴¹ The Board noted that the shelter survey indicates that some three times as much potential shelter space as is necessary is available and that even if Intervenor's objections to some of this shelter as unsuitable are fully credited only about 20% of the existing shelter potential would be eliminated. LBP-88-32, *supra*, 28 NRC at 771-72. The Board rejected Intervenor's contentions that the owners of beach establishments would close their doors to the transient beach population, finding instead that this population would be regarded as "fellow victims." *See id.* at 772. The State found that the survey "identified a large number of shelters that may serve as a pool from which public shelter choices will be made" but declined to incorporate the study into the NHRERP or rely on the study as a planning basis. *See Applicants' Direct Testimony* No. 6 at 22 and Appendix 1 at 9.

⁴² The Board was unable to determine what FEMA's view was as to the necessity of additional planning for the sheltering option. *See LBP-88-32, supra*, 28 NRC at 769.

⁴³ *See Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-832, 23 NRC 135, 154-57 (1986), *aff'd*, CLI-87-12, 26 NRC 383, 398-99 (1987).

detail. The Appeal Board rejected as well the Licensing Board's perception that the addition of implementing detail might cause a decisionmaker to lose sight of the considerable limitations of sheltering even in circumstances where it might be viewed as an option. Rather, in the view of the Appeal Board, the lack of implementing detail essentially left decisionmakers to "speculate [as to] what will be the practical impact of a decision [to shelter]" and, in fact, enhanced "the risk that sheltering will not be utilized in the appropriate, albeit limited, instances contemplated by the plan." *Id.* at 370.

The Appeal Board acknowledged that not all implementing details needed to be in place for a plan to be approved but found that here "the absence of any concerted attempt to incorporate implementing details for protective action options arrived at as a result of the planning process is a deficiency that must be remedied." *Id.* at 372 n.194. The Appeal Board rejected the NRC Staff's contention that the existence of the Stone and Webster survey, *inter alia*, made planning here "less ad hoc" than the planning at issue in *Shoreham*, ALAB-832.⁴⁴ Rather, said the Appeal Board, "[t]he planning efforts concerning sheltering already undertaken remain ad hoc until planning officials take appropriate implementing actions [which] [i]n this case . . . would include designating in the NHRERP which shelters on the survey list are suitable and available for use" ALAB-924, *supra*, 30 NRC at 372. Thus the Appeal Board remanded this matter "for appropriate corrective action" by the Licensing Board. *Id.* at 373.

Upon remand, the Licensing Board considered again its earlier determination that the lack of implementing detail in the NHRERP was not so material an issue as to preclude a reasonable assurance finding under 10 C.F.R. § 50.47(a)(1). The Board recognized that further development of the record would likely be necessary to resolve this issue. LBP-89-33, *supra*, 30 NRC at 671. However, the Board did not believe that the Appeal Board's remand meant that a reasonable assurance finding was now precluded because "the very low probability of selecting the sheltering option for the beach population and the fact that the beach population does not reach large numbers until July, provides adequate safety pending the resolution of the remanded sheltering issue." *Id.* at 672. The Board further observed that "[i]mplementing measures may not be difficult to effect," (*id.* at 671) noting that "sheltering available for the outdoors transient beach population is concentrated in a relatively compact and well defined area" (*id.* at 672).

⁴⁴ The Staff pointed out to the Appeal Board that, "for the sheltering option under the NHRERP, the means of public notification exist; the mechanisms for a protective action determination are in place; and the size of the beach population and the quantity, quality, and location of the shelter are known." ALAB-924, *supra*, 30 NRC at 370.

Commission Conclusion

On the basis of our effectiveness review, we agree with the Appeal Board that so long as sheltering remains a potential, albeit unlikely, emergency response option for the beach population, the NHRERP should contain directions as to how this choice is to be practicably carried out. Such directions should include identification of the location of sufficient available shelter together with the means to notify the beach population as to where this shelter is located. Given the existence of the Stone & Webster Survey, we do not believe incorporation of implementing detail into the NHRERP to be especially difficult or time-consuming.⁴⁵

However, we also find reasonable the Licensing Board's decision that this remanded issue does not raise a significant substantive issue regarding emergency planning adequacy. The record shows clearly that evacuation rather than sheltering is the principal protective action for the beach population, and that the average shelter factor is so small that the public protection afforded from sheltering is very small. FEMA characterized the dose reduction from sheltering as "trivial" and "down in the dirt in the error band," *supra* note 40. We note in this regard that the emergency plan for the Massachusetts beaches, which the Licensing Board found to be adequate, does not even include sheltering as an option. Given these considerations, we believe that the absence of implementing detail for the sheltering option is not significant.

B. Remaining Unreviewed Contested Matters

1. *Licensing Board Decision LBP-89-32 Deciding Contentions on the Emergency Plan for Massachusetts and the Full-Participation Exercise*

The final significant segment of Seabrook operating license litigation entertained issues on the adequacy of the Seabrook Plan for Massachusetts Communities (SPMC) and the full-participation exercise of that plan along with the exercise for the NHRERP and Applicants' plan for onsite response capability as well as the State of Maine's ingestion pathway plan. *See* 10 C.F.R Part 50, Appendix E, ¶ IV.1. The Licensing Board order in LBP-89-32 resolved the is-

⁴⁵ In this connection, we note that the Licensing Board has interpreted the remanded issue to mean that specific sheltering (as compared to maps showing sheltering areas) be identified for the general beach population. *See* LBP-89-33, *supra*, 30 NRC at 671-72. We understand the Appeal Board's direction to designate in the NHRERP "which shelters on the survey list are suitable and available for use," ALAB-924, *supra*, 30 NRC at 372, as meaning that there should be a sufficient quantity of available shelter space rather than that there must necessarily be agreements with particular establishment owners to provide space to beachgoers.

sues that were admitted for litigation⁴⁶ and decided that the SPMC is adequate and implementable.

The Board ruled that the June 1988 exercise was adequate in scope and revealed no fundamental flaw in any of the plans exercised. The Board specifically found that the SPMC meets the Commission's emergency planning regulations. See 10 C.F.R. § 50.47(a) and Appendix E to 10 C.F.R. Part 50. Thus the Board found, subject to certain commitments, conditions and the like for which the Director of NRR is charged with verifying conformance, that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the Seabrook station.⁴⁷

In the same opinion the Board also resolved the one remaining ETE-related (Evacuation Time Estimate) issue over which it retained jurisdiction from the New Hampshire phase of the proceedings. See *supra* p. 244. In a separate opinion, LBP-89-17, 29 NRC 519 (1989), another Seabrook Licensing Board had earlier decided in June 1989 that Applicants' Vehicular Alert Notification System (VANS) provided adequate means to alert people who are within the Massachusetts portion of the emergency planning zone of an emergency situation.

LBP-89-32 is on appeal before the Appeal Board on issues related to both the SPMC and the 1988 exercise.⁴⁸ The Appeal Board is considering Intervenor's Appeal of LBP-89-17 (VANS decision) along with LBP-89-32 because the VANS decision was simply one step on the way to LBP-89-32's conclusive finding of adequacy of emergency planning for the Massachusetts portion of the EPZ. As the only unreviewed partial initial decisions resolving admitted contentions relevant to the issuance of a full-power license, these decisions are a central focus of our immediate effectiveness review.⁴⁹

In considering the conclusions of LBP-89-32, the Commission has paid particular attention to issues raised by Intervenor in their immediate effectiveness review comments.⁵⁰ The Commission has neither been shown nor has it found

⁴⁶ One hundred twenty-three contentions were admitted for litigation. As later consolidated, there were sixty-three contentions admitted with respect to the SPMC and twenty-one with respect to the plan exercise. LBP-89-32, *supra*, 30 NRC at 381.

⁴⁷ FEMA had reviewed the SPMC and judged the exercise and on both testified in the proceeding that they met the NRC regulations and standards. In other words, both the SPMC and the exercise provided reasonable assurance that adequate protection would be provided in the event of a radiological emergency. FEMA's conclusions are presumed to be correct unless rebutted. 10 C.F.R. § 50.47.

⁴⁸ This is apart from objection taken to the Licensing Board's treatment in that order of the impact of the Appeal Board's remand in ALAB-924 on the authorization of issuance of a license.

⁴⁹ As noted elsewhere, LBP-88-32 has been substantially reviewed by the Appeal Board. Petitions for review of the Appeal Board's decision, ALAB-924, are pending. LBP-89-33, the Licensing Board's explanation of its authorization of a license following ALAB-924, was considered in the preceding section as a supplemental partial initial decision.

⁵⁰ MassAG's immediate effectiveness comments on the Licensing Board decision on the SPMC and exercise alone included thirty-four separately asterisked discussions of error spread over thirty-three pages. The total lack of references to the record which might aid our understanding of their belief that the Licensing Board erred in

(Continued)

sua sponte that it need withhold effectiveness of operation of Seabrook pending administrative review. Our review has, however, turned up several matters on which we believe we can provide some helpful comment or for which, as a matter of policy, we require some further commitment or action by the Applicants or Staff. In some instances the Commission does so not because it is clearly essential to safety, but because additional enhancements to the adequate emergency preparations that have already been made appear desirable on the basis of our effectiveness review. We discuss these matters below.

(i) *Evacuation Time Estimate (ETE) Issues*

In LBP-89-32, the Board made the finding that the number of ETEs generated, and the regions and scenarios for which they were generated, are sufficient and correctly limited in number so as to be usable by a decisionmaker fairly quickly and not to be overly cumbersome. LBP-89-32, *supra*, 30 NRC at 403. However, Intervenor complain that the Board permitted a regional approach to producing ETEs and assert that separate ETEs should be created for Massachusetts decisionmakers. LBP-89-32 also states that the Massachusetts Attorney General argued for segregated ETEs for the Massachusetts and New Hampshire portions of the EPZ. *Id.* at 401.

Our regulation 10 C.F.R. § 50.47(b)(10) requires, in part, that “[g]uidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place.” Criterion II.J.10.1 of NUREG-0654 indicates that an organization’s plans to implement protective measures for the plume exposure pathway EPZ shall include “time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for that EPZ.” Criterion II.J.10.1 also references Appendix 4 of NUREG-0654 as the location for more detailed guidance on performing such an ETE study. Appendix 4, in turn, includes the following criteria for determining sub-areas within the EPZ for which ETEs are required. The sub-areas must encompass the entire plume exposure pathway EPZ, as ETEs are required for the situation of the simultaneous evacuation of the entire EPZ. The sub-areas to be considered are also to be radial distances of about 2, 5, and 10 miles from the nuclear plant, with the areas within these circles to be divided into four, 90-degree sectors. The boundaries of these sub-areas should be based on demography, topography, land characteristics, access routes, and

the referenced portions of the decision was not helpful. Nonetheless, because of the importance of this matter we have had our adjudicatory staff do as much of the tracking of sources as possible. The parties are on notice that they may *not* further rely on the Commission to do their work for them and cannot be heard to complain of any incompleteness in the Commission’s response.

local jurisdictions, and should not divide densely populated areas to the extent practical.

The guidance in Appendix 4 of NUREG-0654 neither requires nor suggests that the sub-areas' boundaries must take into account the borders of contiguous states. Therefore, the Board's conclusion that there is no regulatory requirement for segregated ETEs for Massachusetts and New Hampshire appears to be correct. Moreover, as a practical matter, we agree in this effectiveness review with the Board's position in LBP-89-32, that the regional approach of the ETEs is acceptable, given the reality that traffic flow cannot be segregated temporally according to political boundaries and because there is no suggestion that evacuees from New Hampshire portions of the EPZ would be prohibited from entering the Commonwealth.

Furthermore, the guidance of NUREG-0654 states that, when making ETEs for outer sectors, it is to be assumed that the inner, adjacent sectors are being evacuated simultaneously. In LBP-89-32, the Board concluded that the Applicants' regional approach in presenting ETEs was acceptable given that the New Hampshire coastal areas are closer to the Seabrook Station than are the Massachusetts communities and will be generating sizeable traffic flows before or as soon as an order to evacuate is issued in Massachusetts. Indeed, one might conclude from the NUREG-0654 guidance and the aforementioned conclusion by the Board, that the Massachusetts ETEs would be unacceptable under the regulatory guidance, if they did not take into account permitted traffic flow from New Hampshire portions of the EPZ that were nearer to the Seabrook Station.

In LBP-89-32, the Board indicates that the NRC Staff witness concluded that the Applicants' ETE study satisfied the guidance of Appendix 4 of NUREG-0654 and all applicable regulatory requirements with one exception, which was categorized as essentially an editorial task. This exception was that the ETE study should be published. LBP-89-32 states that the Applicants committed to publish the ETE study. The Board required that the published study be submitted to the NRC Staff for verification within 60 days of the date of service of LBP-89-32. LBP-89-32, *supra*, 30 NRC at 436. The Board's instruction to publish the study and to submit it to the Staff, so that verification of the publication commitment can take place, was appropriate, as there is no regulatory requirement to incorporate the entire study in an emergency plan.

The Commission finds the Board's decision on this issue reasonable since the guidance contemplates that for ETE purposes the EPZ would be divided in a series of concentric radials, with the areas within the circles into quadrants, taking into account various geographic and demographic features. As a practical matter, where more than one state is involved, decisionmaking is coordinated and may be expected to be so here particularly since the utility plan for the SPMC contemplates a cooperative effort.

Nonetheless, should the Commonwealth of Massachusetts decide to participate in planning and wish separate ETEs in order to prepare a state-sponsored emergency plan or for its own use in arriving at protective action decisions, the Commission sees no reason why ETEs cannot be promptly developed and considered for that use.

(ii) Notification of Special Facilities in an Emergency

The Commission believes that the Board reasonably decided Intervenor's concerns with regard to communication with schools or special-needs persons. The Commission notes only that the Applicants, among other things, committed to supplying tone-alert radios to Massachusetts EPZ schools as another means to ensure timely notification of the school population in the event of an emergency. No time for fulfillment of the commitment is provided.⁵¹ The Commission believes that this additional protection for schoolchildren should be accomplished promptly and without unnecessary delay. However, we do not believe that the matter is significant such that it must be accomplished prior to issuance of the full-power license.

(iii) The Sheltering Option for the Beach Population in Massachusetts

Our separate opinion today deciding the certified question is relevant to Intervenor's arguments with regard to an alleged inadequacy in the range of options for the beach population. That opinion confirms that the adequacy of any emergency plan is not to be judged with specific reference to some minimum level of dose savings. A plan is to be judged under the Commission planning standards, which resulted from a comprehensive public rulemaking which included consideration of the ways to ensure effective emergency responses to radiological incidents. The Board's finding that the SPMC contains a range of possible protective options for people in the Massachusetts portion of the EPZ,⁵² even though not every option is necessarily available everywhere appears reasonable.

(iv) Congregate Care Facilities

LBP-89-32 describes the SPMC's provisions for Congregate Care Centers for schoolchildren and for mobility-impaired persons who do not require hospital care. The Holy Cross College in Worcester will serve as a Host School Center for all the Massachusetts EPZ's public, private, day-care, and nursery school-

⁵¹ See LBP-89-32, *supra*, 30 NRC at 496.

⁵² *Id.* at 486.

children. The primary Host Ambulatory Special Needs Center would be located at the Shriners' Auditorium in Wilmington, while a backup Congregate Care Center for excess members of the ambulatory special-needs population would be located at a large facility known as the Westborough facility.⁵³

Section 50.47(b)(8) requires that "adequate emergency facilities and equipment to support the emergency response are provided and maintained." Section 50.47(b)(10) states, in part, that "[a] range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public." Criterion II.H.4 of Supplement 1 to NUREG-0654 states as guidance for meeting the regulatory criteria that "each offsite response organization shall provide for timely staffing of the facilities and centers described in the offsite plan." Criterion II.J.10.d of Supplement 1 states that "the offsite organization's plans to implement protective measures for the plume exposure pathway shall include the means of protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement. These means shall include notification, support, and assistance in implementing protective measures where appropriate."

(A) ADEQUACY OF THE WESTBOROUGH FACILITY

The Board found that the Shriners' Auditorium can accommodate roughly half of the Massachusetts special-needs population who are not schoolchildren.⁵⁴ The Westborough facility is to be available as a backup to accommodate the over 1000 special-needs persons who cannot fit into the Shriners' Auditorium in the event that the protective action chosen requires that the entire special-needs population be accommodated. The Board noted that FEMA evaluated the Westborough facility for the general population who would evacuate the EPZ, but not as a facility suitable for the needs of mobility-impaired evacuees. LBP-89-32, *supra*, 30 NRC at 541 n.52.

LBP-89-32 indicates that, with the exception of the Westborough facility as a Congregate Care Center for mobility-impaired persons, FEMA found all of the Congregate Care Centers in the SPMC to be adequate. Since the Westborough facility is described in LBP-89-32 as a backup Congregate Care Center for excess numbers of mobility-impaired evacuees, the Commission believes that evaluation of its adequacy for this purpose would be beneficial. Accordingly, the Director of the Office of Nuclear Reactor Regulation, in consultation with FEMA as appropriate, should evaluate the Westborough facility's adequacy as a Congregate Care Center for mobility-impaired persons. However, we do not

⁵³ It is alternatively spelled "Westboro" in LBP-89-32, *passim*, and in other documents.

⁵⁴ *Id.* at 541.

believe that the matter is significant such that it must be accomplished prior to issuance of a full-power license.

(B) SCHOOL OFFICIALS' ROLES DURING EVACUATION AND EARLY STAGES OF CONGREGATE CARE

LBP-89-32 finds that the Host School Center at Holy Cross College would accommodate the Massachusetts EPZ's schoolchildren if they are evacuated from their schools. The Board further states its understanding that the SPMC incorporates an "evacuation in place" concept⁵⁵ whereby it is assumed that teachers, day-care workers, and nursery school personnel will continue in their "service provider roles" while accompanying their charges through an evacuation process and into the early stages of congregate care. Furthermore, facility administrators and supervisors are assumed by the SPMC to continue to exercise their preemergency authority, including calling for additional staff and assigning persons under their preemergency authority in a manner that best serves the needs of their group of evacuees. In LBP-89-32, the Board rejected the MassAG's argument, similar to that advanced with respect to the NHRERP, that there is no "reasonable assurance" that Commonwealth school officials will continue in their preemergency roles in the event of an actual radiological emergency. As we indicated earlier in this opinion, we consider it reasonable to conclude that schoolchildren can be evacuated without teachers on the buses.

Relatedly, in LBP-89-32 the Board states that the Applicants *will* make SPMC orientation training available, during some unspecified time period, to Massachusetts school officials regarding the roles that the SPMC expects them to fulfill in a radiological emergency. The Director of the Office of Nuclear Reactor Regulation should ensure that the Applicants offer this orientation training to all appropriate Massachusetts EPZ school officials and that the training be made available so that it could be completed by the end of the 1989-90 school session.

3. *The Motions to Reopen*

In three separate opinions, one issued before and two after LBP-89-32 and LBP-89-33, the Licensing Board rejected three categories of contentions: LBP-89-28, 30 NRC 271 (ruling on low-power testing contention), October 12, 1989; LBP-89-38, 30 NRC 725 (Ruling on Motions Regarding Onsite Exercise), December 11, 1989; and LBP-90-1, 31 NRC 19 (Ruling on Intervenor's Motions to Admit a Late-Filed Contention and Reopen the Record Based upon the

⁵⁵ *Id.* at 529.

Withdrawal of the Massachusetts E.B.S. Network and WCGY), January 8, 1990. We discuss them briefly in turn.

The Low-Power Testing Contentions

The Licensing Board declined to reopen the hearing to admit the low-power contentions in which Intervenor wished to explore anew operator qualifications based on operator misjudgment during low-power testing. Key to its decision was the determination that low-power testing is not material to the grant of a full-power license and therefore is not automatically subject to litigation as Intervenor maintain. The Licensing Board is clearly correct in that full-power licenses may issue without a previous issuance of a low-power license which would be otherwise needed to permit such testing. Indeed, were each phase of pre-full-power operational readiness testing to open the door to relitigating the licensing issues it is doubtful that any plant would avail itself of the benefits of an early low-power testing license. Perhaps more important, the record shows that Intervenor's contentions are based on staff reports and that this is a matter to which Staff has paid considerable attention.⁵⁶ The Board specifically noted that it had before it an "ample factual record" (LBP-89-28, *supra*, 30 NRC at 291) from the affidavits provided by the parties to make a determination on whether the issues were safety significant and explained why they were not. The Commission believes that the Board's conclusions are reasonable.

The September 18, 1989 Onsite Exercise Contentions

An exercise of Applicants' onsite plan was held on September 18, 1989.⁵⁷ Intervenor thereafter contended that the scope of the onsite exercise was insufficient to fully test the onsite plan. The Board rejected the contentions based in part on Intervenor's failure to meet reopening standards but also, and more important, because of a failure to plead how the alleged insufficient scope resulted in a situation where a fundamental flaw in the emergency plan could avoid detection. Significantly, the Board also found that the regulations that Intervenor claimed set the standard for the scope of the exercise were applicable to the full-participation exercise but not to the exercise solely of the Applicants' onsite plan. LBP-89-38, *supra*, 30 NRC at 745. We do not here summarize the Board's 41-page opinion, but express our view that the Board's treatment of this matter appears reasonable. Applicants' onsite plan had been tested on several occasions before this one and no fundamental flaw was shown. Given

⁵⁶ A civil penalty has been assessed against the Applicants.

⁵⁷ The exercise followed the Commission's denial of the Applicants' request for an exemption from conducting a test of the onsite plan within a year of issuance of a full-power license. CLI-89-19, 30 NRC 171 (1989).

the prior review and exercises of the onsite plan, it strikes us as unlikely that a fundamental flaw would have arisen, although it is possible that there might be a lapse in readiness. To avoid such readiness lapses is the principal goal in requiring an annual exercise. We also note that the scope of the exercise does not appear to be inconsistent with the scope of onsite exercises at other plants.

The EBS Contentions

In its decision, LBP-90-1, the Licensing Board rejected contentions related to broadcast notification included in Intervenor's motions served on November 3 or 9⁵⁸ and November 22. The motions were filed late in the process — at the most a few days before the SPMC decision — and raise the issue whether a motion of this sort can be so late that its consideration is simply precluded. We do not address this issue here; we will consider, separate from the *Seabrook* proceeding, the desirability of additional guidance regarding such late-filed motions. In any event, our effectiveness review here suggests that in the circumstances the Board's application of the reopening standards to these motions was reasonable.

C. Uncontested Issues, Verification of Conditions, and Plant Readiness

1. Uncontested Issues and Verification of Conditions

As with any full-power license, a full-power license for Seabrook will necessarily contain numerous technical conditions which reflect the Staff's precicensing technical review of issues relevant to full-power operation.

As a result of the litigation of contested issues, numerous conditions were placed on license issuance. The Director of Nuclear Reactor Regulation shall ensure that the license includes all of the necessary conditions and that those that are precicensing conditions have been met. The requirements of this effectiveness order shall not be conditions in the license, as they represent requirements subject to change in the adjudicatory process. Nonetheless, interim compliance is necessary as stated and shall be confirmed by the Staff.

2. Plant Readiness

On January 18, 1990, the Commission met in public session to receive briefings from the Applicants and the Staff on the readiness of the Seabrook plant to receive a full-power license. Both reported that the plant was ready except for certain specified exceptions, and the Commission also requested

⁵⁸ We need not here address the confusion that apparently resulted from MassAG's withdrawal and resubmittal of his motion to admit the EBS contention.

some additional information. The Commission has on January 23, February 9, February 26, February 28, and March 1, 1990, received notice from the Staff that those exceptions have been or are being resolved on the anticipated schedule, and that the plant is ready to begin ascension to full-power operation. In particular, the Staff completed detailed reviews of late-filed allegations including approximately 255 separate allegations prepared by the Quality Technology Corporation for the Employees Legal Project as well as 13 allegations of a private citizen who taped Seabrook control room radio transmissions between January 1989 and the end of January 1990. Based on these reviews, the NRC Staff concluded that none of the allegations represents concerns that are material to the issuance of a full-power license. Moreover, the review determined that the majority of the concerns were restatements of allegations previously submitted and resolved.

In light of the foregoing considerations, the Commission's effectiveness review fully supports allowing the Licensing Board's authorization of issuance of a full-power license to become effective.

IV. THE STAY MOTIONS

The Commission's effectiveness review under § 2.764 is designed to enable the Commission itself to examine preliminarily the matters decided by the Licensing Board in order to determine whether the decision can become effective and thus authorize issuance of a full-power license. While parties were invited by our rules to file effectiveness comments, the principal avenue for relief for parties seeking to preclude license issuance pending appeals is to seek a stay under § 2.788. Stays are a part of the formal adjudicatory proceeding, and the criteria for consideration of a stay under § 2.788 of the Commission's regulations are the same as those that the courts apply in granting or denying a stay pending appeal.⁵⁹ See, e.g., *Virginia Petroleum Jobbers Ass'n v. Federal Power Commission*, 259 F.2d 921, 925 (D.C. Cir. 1958).

Intervenors MassAG, SAPL, NECNP, and the Town of Hampton filed their stay request on December 1, 1989.⁶⁰ The Applicants and the NRC Staff thereafter, on December 8 and 17, respectively, filed their responses in opposition to the grant of the stay.

⁵⁹ Section 2.788 establishes the following factors to be considered in reviewing a request for a stay:

- (1) whether the moving party has made a strong showing that it is likely to prevail on the merits;
- (2) whether the party will be irreparably injured unless a stay is granted;
- (3) whether the granting of a stay would harm other parties; and
- (4) where the public interest lies.

⁶⁰ New England Coalition on Nuclear Pollution filed a separate stay request on the same day. The Commission has considered it as well, along with stay requests included with a party's immediate effectiveness comments.

A. The Irreparable Injury Factor

Of the four stay factors, it is well established that "the most crucial [factor] is whether irreparable injury will be incurred by the movant absent a stay." *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-81-27, 14 NRC 795, 797 (1981). For that reason we turn first to Intervenor's claims of harm to them. The claims appear to boil down to three categories of harm: (1) an alleged due-process harm, focusing on a claim that they are harmed by being forced to seek a stay of license issuance even after a victory before the Appeal Board; (2) an alleged cost and resource harm; (3) an alleged harm from increased risks during operations by allegedly untrained operators.

1. Administrative Due Process

Intervenor's claim that there has not been administrative regularity in the conduct of this proceeding. Intervenor's particularly do not like and vigorously object to the Commission's procedures permitting licensing boards to evaluate whether a remand need block authorization of a license, requiring all contentions after the original stage to be subject to certain "timeliness" requirements, and allowing the Commission to step into a proceeding at any stage to offer guidance to the parties.

The procedures to which Intervenor's object are neither unprecedented nor aberrations; they have been in force for years and have been applied to numerous nuclear power plant licensing proceedings before this one.⁶¹ Their application to this proceeding is not a deprivation of due process.

2. Financial and Resource Harm

Intervenor's claim that they will be harmed from the irretrievable commitment of resources associated with operation pending appeal and the alleged inability of the Applicants to meet the expenses of decommissioning in the event that they operate at full power and the license is later vacated upon final order of the Commission (or a court) after review.

There is no support for Intervenor's claim that the commitment of resources will cause a bias in favor of continuing the license in subsequent Commission decisionmaking.⁶² To the contrary, as the Intervenor's themselves have recognized, the Commission has stated repeatedly and categorically that it will not

⁶¹ See discussion *supra* in Sections II.B.1 and II.B.2 and citations there provided.

⁶² Intervenor's citation to *NEPA* cases for the proposition that the commitment of resources will prevent meaningful review is unavailing. The decisionmaking process under *NEPA* includes consideration of commitments of resources and economic factors, while the decisionmaking process for compliance with NRC emergency planning regulations does not.

consider the commitment of resources to a completed plant or other economic factors in its decisionmaking on compliance with emergency planning safety regulations. *See, e.g., Seacoast Anti-Pollution League v. NRC*, 690 F.2d 1025 (D.C. Cir. 1985).

Intervenors' further assertion that Applicants' financial condition will leave them unable to meet decommissioning expenses in the event a license is ultimately vacated totally lacks substance. They claim that the Applicants would have no more than \$43 million available at the end of the first year from the state funding source for decommissioning and could have nothing from NRC funding. Intervenors are mistaken. The Applicants' surety bond for \$72,126,456.00, required by the Commission for issuance of a low-power license, is effective until

the earlier of (i) a final non-appealable regulatory or judicial determination that the Seabrook Project has been granted a license . . . other than as contemplated by the issuance of the license for low power testing . . . or (ii) a final non-appealable regulatory or judicial determination that no further Pre-Operational Decommissioning is required.

Surety Bond between Applicants and The Aetna Casualty and Surety Company as Surety, dated March 20, 1989. Thus this bond is available during the pendency of appeals which could lead to vacation of the license. And, lest there be any doubts on this score, we merely require that the bond, or a similar one, be available pending appeals. Adding the available state funds to the \$72.1 million available from the surety, it is evident that Applicants here would have available over \$115 million in the event that premature decommissioning were required. This large sum is close to what, under the Commission's decommissioning rules, would be required for decommissioning of a plant that had been in operation for a long period of time. We find that fund sufficient to offset any claim of irreparable injury from lack of decommissioning funds.⁶³ In fact, Applicants here have done far more to meet decommissioning expenses than our rules literally require.

3. Increased Risk of Nuclear Accident by Alleged Lack of Competence of Seabrook Operators

It is well settled that speculation about occurrence of a nuclear accident does not constitute the kind of irreparable injury that would warrant a stay of full-power operations. *E.g., Cleveland Electric Illuminating Co.* (Perry Nuclear

⁶³ Intervenors use a figure of \$242 million developed by the Applicants' in another context, as the "total decommissioning cost assumption." Intervenors' Stay Motion at 9. The Commission does not recognize that sum. We assume that it includes decommissioning costs other than those necessary to avoid radiological harm which are not cognizable here.

Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 748 n.20 (1985), citing *New York v. NRC*, 550 F.2d 745, 756-57 (2d Cir. 1977), and *Virginia Sunshine Alliance v. Hendrie*, 477 F. Supp. 68, 70 (D.D.C. 1979). In an apparent effort to distinguish this settled principle, Intervenor's argue that a June 22, 1989 event during low-power testing, when Seabrook plant personnel erred in not tripping the reactor at the point first called for by the low-power testing procedure, indicates inadequate training, operating procedures, and performance, and that this in turn increases the risk of an accident. We find this argument unpersuasive. The error during low-power testing was significant and led to enforcement and corrective actions. But the Board, after an exhaustive examination of the incident, based on affidavits from the parties and the extensive NRC Staff investigations of the event, found that reactor plant safety was never in question, that with this one exception plant staff performed well, that there was no evidence of willful noncompliance with NRC requirements or withholding of information from NRC, and that the event reflected only an isolated instance of a failure to adhere strictly to applicable procedures and did not represent a pervasive breakdown or fundamental flaw in Applicants' testing or training programs. LBP-89-28, *supra*, 30 NRC at 281-82, 284-92. We find the Board's careful discussion and evaluation of the safety significance of this event entirely reasonable and, based upon this and on Staff's and Applicants' own follow-on corrective actions, fail to see how the event evidences any increased risk of accident at Seabrook. In fact, we think that Intervenor's own affidants demonstrated that the Commission is holding the public safety in high regard.⁶⁴

B. The Remaining Factors

Given the lack of any showing of irreparable harm to Intervenor's, a strong showing would need to be made on the remaining stay factors in order for any stay to be granted. Our discussion of the litigated issues in our immediate effectiveness section is fully applicable here. That discussion indicates that Intervenor's have certainly not made a strong showing that they are likely to prevail on the merits of further appeals. We offer no comment at this point on how a stay could harm Applicants' interests or affect the reliability of electrical power in the New England area — matters that, if considered, could not bolster Intervenor's case in any event. However, we do believe strongly that a stay at this point would be contrary to the public interest which underlies the mandate to us in 5 U.S.C. § 558 to complete license application proceedings within a reasonable time with due regard for the rights of the parties.

⁶⁴ The affidants noted that the NRC Staff planned to evaluate the proficiency of all Seabrook shift crews under simulated accident conditions in mid-December 1989. Joint Affidavit of Gregory C. Minor and Steven C. Sholly at 6.

V. CONCLUSION

For the reasons explained above, the Director of NRR may issue the license authorized by the Licensing Board in LBP-89-32 on a schedule consistent with the following provisions for a housekeeping stay. Given the controversy that has surrounded the Seabrook plant since these proceedings commenced, we fully expect that judicial review of this decision will be sought. As a courtesy to the parties, to permit the filing of judicial stay motions, the effective date of this decision will be March 8, 1990. If motions for a stay are filed by plant opponents with the U.S. Court of Appeals within this period, then the decision's effective date will be 1 week after the relevant motions are filed.

It is so ORDERED.

For the Commission⁶⁵

SAMUEL J. CHILK
Secretary of the Commission

Dated at Rockville, Maryland,
this 1st day of March 1990.

⁶⁵ Commissioners Curtiss and Remick abstained from consideration of this matter.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Thomas S. Moore, Chairman
Christine N. Kohl
Howard A. Wilber

In the Matter of

Docket No. 40-2061-ML

**KERR-McGEE CHEMICAL
CORPORATION
(West Chicago Rare Earths
Facility)**

March 27, 1990

On March 13, 1990, the Appeal Board denied motions for a stay of the Licensing Board's decision in LBP-90-9, 31 NRC 150 (1990), authorizing an amendment to the materials license held by Kerr-McGee permanently to dispose of radioactive thorium mill tailings, other associated waste, equipment, building rubble, and contaminated soils. The Appeal Board issues a memorandum containing the reasons for that earlier denial.

RULES OF PRACTICE: STAY PENDING APPEAL

APPEAL BOARD(S): STAY AUTHORITY

In ascertaining whether a stay pending appeal is warranted, consideration must be given to the following criteria: (a) whether the moving party has made a strong showing that it is likely to prevail on the merits; (b) whether the moving party will be irreparably injured unless a stay is granted; (c) whether granting a stay would harm other parties; and (d) where the public interest lies. 10 C.F.R. § 2.788(e).

RULES OF PRACTICE: STAY PENDING APPEAL

Concerning the stay criteria, the burden of persuasion is on the movant, and while no one criteria is dispositive, "[t]he most significant factor in deciding whether to grant a stay request is 'whether the party requesting a stay has shown that it will be irreparably injured unless a stay is granted.'" *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-84-17, 20 NRC 801, 804 (1984) (quoting *Westinghouse Electric Corp.* (Exports to the Philippines), CLI-80-14, 11 NRC 631, 662 (1980)). See *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-81-27, 14 NRC 795, 797 (1981).

NEPA: CONSIDERATION OF ALTERNATIVES

Absent a stay, an applicant's expenditures toward development of the proposed site during the appeal process must be taken into account in any required future analysis comparing a proposed site to alternative sites.

NEPA: CONSIDERATION OF ALTERNATIVES; COST-BENEFIT ANALYSIS (BALANCE)

RULES OF PRACTICE: STAY PENDING APPEAL

The Commission has held that absent an applicant's bad faith in its environmental reporting, "the [cost-benefit] analysis on remand should be done on the basis of the factual predicate existing at the time of the analysis." *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 532 (1977). Furthermore, "the larger the commitment of resources to one site, the less likely it is that an alternative site will remain feasible." *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Unit No. 2), ALAB-404, 5 NRC 1185, 1188 (1977). Accordingly, without a stay, a party advocating an alternative site may be irreparably injured if much time and money will be spent on the proposed site pending appeal. See *id.* at 1188; *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-437, 6 NRC 630, 634 (1977).

RULES OF PRACTICE: STAY PENDING APPEAL

APPEAL BOARD(S): STAY AUTHORITY

Absent a finding of irreparable injury, an Appeal Board may not grant a stay unless "a reversal of the decision under attack is not merely likely, but a virtual certainty." *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 746 n.8 (1985). See *General Public*

Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Unit 2), ALAB-914, 29 NRC 357, 361 (1989).

RULES OF PRACTICE: STAY PENDING APPEAL

The mere listing of several grounds for appeal, without more, is insufficient to establish that the movant is likely to prevail on the merits.

TECHNICAL ISSUES DISCUSSED

Alternate Sites.

APPEARANCES

Neil F. Hartigan, Attorney General, State of Illinois and **Douglas J. Rathe**, Chicago, Illinois, for intervenors, the People of the State of Illinois and the Illinois Department of Nuclear Safety.

Joseph V. Karaganis and **James D. Brusslan**, Chicago, Illinois, and **Robert D. Greenwalt**, West Chicago, Illinois, for the City of West Chicago, Illinois.

Peter J. Nickles, **Richard A. Meserve**, and **Herbert Estreicher**, Washington, D.C., for the applicant **Kerr-McGee Chemical Corporation**.

Patricia Jehle for the Nuclear Regulatory Commission staff.

MEMORANDUM

On February 13, 1990, the Licensing Board issued an initial decision authorizing an amendment to the materials license held by Kerr-McGee Chemical Corporation for its West Chicago Rare Earths Facility.¹ That facility is located on forty-three acres in the midst of a densely populated residential area in the City of West Chicago in DuPage County, Illinois.² The license amendment authorizes Kerr-McGee to dispose of permanently, on twenty-seven acres of the

¹ See LBP-90-9, 31 NRC 150 (1990).

² See NUREG-0904, Supplement No. 1, "Supplement to the Final Environmental Statement Related to the Decommissioning of the Rare Earths Facility, West Chicago, Illinois" (April 1989) [hereinafter, SFES] at 1-1, 4-23.

West Chicago site, some 376,400 cubic meters of radioactive thorium mill tailings, associated radioactive uranium and radium wastes, and various process equipment, building rubble, and soils contaminated with these elements.³ The radioactive wastes are to be piled above grade to a height of thirty-five feet on compacted clay soil and covered with an earth, stone, and clay cap that purportedly is designed to provide reasonable assurance of control of radiological hazards for 1,000 years and, in any event, for at least 200 years.⁴

The People of the State of Illinois and the Illinois Department of Nuclear Safety (the State) have filed an appeal from the Licensing Board's decision and seek a stay of the amendment authorization. The City of West Chicago also has filed a notice of appeal and an application for a stay that incorporates the State's motion. Both Kerr-McGee and the NRC staff oppose the grant of a stay. On March 13, 1990, we issued an order denying the stay motions. This memorandum contains our reasons for that earlier action.⁵

1. According to the Licensing Board's initial decision, the Lindsay Light and Chemical Company began producing rare earth compounds and thorium at the West Chicago facility in 1932. That company continued to operate the facility until 1958 when it merged with the American Potash and Chemical Corporation, which ran the plant until 1967. At that time, American Potash merged with Kerr-McGee, which operated the facility until it was finally closed in 1973.⁶ The history of Kerr-McGee's proposals for decommissioning the West Chicago facility and disposing of the related radioactive wastes and contamination is long and involved.⁷ It suffices to note that in 1983 the NRC staff issued a final environmental statement (FES) on Kerr-McGee's proposed decommissioning and stabilization plan for the facility, which concluded that temporary onsite storage was the preferred alternative. At the same time, the agency issued the notice of opportunity for hearing that began this proceeding.⁸ Thereafter, in 1984 the Licensing Board ruled that the staff must prepare and circulate a supplement to the FES addressing permanent onsite disposal of

³ LBP-90-9, 31 NRC at 152; SFES at 2-4 to 2-5, 2-11 to 2-12.

⁴ SFES at 3-3 to 3-7. See 10 C.F.R. Part 40, Appendix A, §I, Criterion 6.

⁵ Late yesterday we received the State's March 23, 1990, purported "withdrawal" of its stay motion. The basis for the filing is changed circumstances resulting from state court and city government action that assertedly precludes Kerr-McGee, at least for the time being, from taking any further action with regard to the waste disposal site here at issue.

Because we already denied its motion a full two weeks ago, it is obviously too late now for the State to withdraw its stay request. We also note that the City of West Chicago has not joined in the State's withdrawal. In any event, this memorandum merely provides the reasons for our earlier action. In this regard, we point out that the state court and city government action noted in the State's March 23 filing played no role in our disposition of the subject stay motion.

⁶ LBP-90-9, 31 NRC at 152.

⁷ See, e.g., *Kerr-McGee Corp. (West Chicago Rare Earths Facility)*, CLI-82-2, 15 NRC 232 (1982), *aff'd sub nom. City of West Chicago v. NRC*, 701 F.2d 632 (7th Cir. 1983).

⁸ See 48 Fed. Reg. 26,381 (1983).

the radioactive mill tailings and other wastes.⁹ The staff published the final supplement in 1989, concluding that permanent onsite disposal is the preferred alternative.¹⁰

After the staff issued the supplement, the Licensing Board admitted a number of late-filed contentions proffered by the State that focused on the SFES.¹¹ The Board then granted Kerr-McGee's motion for summary disposition on many of the State's contentions.¹² It also granted in part the State's motion for summary disposition on one issue, imposing a condition upon the license amendment ultimately authorized.¹³ With regard to two of the remaining issues, the Board held an evidentiary hearing and eventually resolved them in Kerr-McGee's favor.¹⁴ At the same time, the Board granted Kerr-McGee's motion for summary disposition on all other outstanding issues.¹⁵

2. The Commission's Rules of Practice provide that, in ascertaining whether a stay pending appeal is warranted, consideration must be given to the following criteria: (a) whether the moving party has made a strong showing that it is likely to prevail on the merits; (b) whether the moving party will be irreparably injured unless a stay is granted; (c) whether granting a stay would harm other parties; and (d) where the public interest lies.¹⁶ With regard to each of these questions, the burden of persuasion is on the movant and, while no one factor is dispositive, "[t]he most significant factor in deciding whether to grant a stay request is 'whether the party requesting a stay has shown that it will be irreparably injured unless a stay is granted.'"¹⁷

In its motion, the State asserts that it will be irreparably injured if the status quo is not maintained and Kerr-McGee is allowed to expend resources developing the permanent disposal site during the pendency of the State's appeal. According to the State, it has challenged the alternative site selection process and proposed a superior alternative site. It further argues that the State's appeal on this crucial issue will be rendered a nullity because Kerr-McGee's expenditures will be taken into consideration in any subsequent site comparison, thereby forever slanting the cost-benefit analysis to the State's prejudice were we to agree ultimately that the agency's alternative site selection process and cost-benefit analysis are flawed.

⁹ See LBP-84-42, 20 NRC 1296, 1317 & n.45 (1984); LBP-85-3, 21 NRC 244, 251-56 (1985).

¹⁰ SFES at 1-18 to 1-20.

¹¹ LBP-89-16, 29 NRC 508 (1989).

¹² LBP-89-35, 30 NRC 677, 680-703 (1989).

¹³ *Id.* at 691-92. See LBP-90-9, 31 NRC at 195.

¹⁴ LBP-90-9, 31 NRC at 165-85.

¹⁵ *Id.* at 185-94.

¹⁶ 10 C.F.R. § 2.788(c).

¹⁷ *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-84-17, 20 NRC 801, 804 (1984) (quoting *Westinghouse Electric Corp.* (Exports to the Philippines), CLI-80-14, 11 NRC 631, 662 (1980)). See *Alabama Power Co.* (Joseph M. Farley Nuclear Plant, Units 1 and 2), CLI-81-27, 14 NRC 795, 797 (1981).

The State is correct that expenditures by Kerr-McGee toward development of the West Chicago disposal site during the appeal process must be taken into account in any required future analysis of the alternative site question. Indeed, in comparable circumstances, the Commission has squarely held that, except in situations where an applicant is guilty of bad faith in its environmental reporting, "the [cost-benefit] analysis on remand should be done on the basis of the factual predicate existing at the time of the analysis."¹⁸ Therefore, in considering the claims of irreparable injury to movants purportedly in the shoes of the State here, we have recognized "that the decision-making process can be prejudiced by a commitment of resources to a project," because "the larger the commitment of resources to one site, the less likely it is that an alternative site will remain feasible."¹⁹ Thus, we have indicated that this claim of irreparable injury "must . . . be taken seriously"²⁰ and "can be a strong one," especially "where, as here, an alternative site contention is being vigorously pursued [and] permitting construction to go forward could, at least theoretically, alter the outcome."²¹

In the circumstances presented by this license amendment proceeding, the State makes a sound argument that it stands to be irreparably injured by Kerr-McGee's construction activities during the appellate process if the status quo is not maintained. But, at bottom, the State's argument is premised upon Kerr-McGee's expenditure of sufficient resources on construction activities over the next few months so as to affect substantially any future cost-benefit analysis. Not surprisingly, this subject is not discussed in the State's motion, for it is a matter uniquely within Kerr-McGee's province. For this reason, and because the responses of the NRC staff and Kerr-McGee to the stay motions are silent in this regard, we ordered Kerr-McGee to inform us about its construction plans for the next six to eight months and its likely expenditures during that period.²²

As we understand its response, Kerr-McGee's activities and expenditures over the next few months will be quite limited and, for the most part, confined to site work that would have to be conducted regardless of whether the contaminated soils and sediments involved are ultimately disposed of onsite or at another location.²³ This being so, Kerr-McGee's limited expenditures during the administrative appeal process cannot reasonably be said to skew the ultimate cost-benefit analysis, should it need to be revisited. Accordingly, we cannot find

¹⁸ *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 532 (1977).

¹⁹ *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Unit No. 2), ALAB-404, 5 NRC 1185, 1188 (1977).

²⁰ *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-437, 6 NRC 630, 634 (1977).

²¹ *St. Lucie*, 5 NRC at 1188.

²² Appeal Board Order (March 9, 1990) (unpublished).

²³ Kerr-McGee's Response to Appeal Board Order (March 12, 1990) at 3-4.

at this time that the State will be irreparably injured by Kerr-McGee's proposed expenditure of resources during the pendency of the appeals.

We recognize, of course, that if Kerr-McGee changes its construction plans and schedule, the State may yet be seriously prejudiced. Thus, we expect Kerr-McGee to keep us fully informed during the appellate process of any significant alterations in its construction plans and schedule and any substantial changes in its likely expenditures with regard to the disposal site. Similarly, our conclusion that the State is not irreparably injured is without prejudice to the State's timely renewal of its stay request if circumstances change because of Kerr-McGee's actions during the pendency of the State's appeal.²⁴

Absent a finding of irreparable injury, one seeking a stay must show "that a reversal of the decision under attack is not merely likely, but a virtual certainty."²⁵ This is so because "[m]ost appeals present at least some close questions[and, w]here no threat of irreparable injury is established, both the need for and the wisdom of our precipitous pronouncement on the merits of the appellant's claims are doubtful at best."²⁶ Here, the State claims the Licensing Board erred in (1) granting summary disposition on its contentions because there were material issues of fact in dispute; (2) concluding that onsite disposal would meet applicable radiological exposure and emission standards; (3) determining that different standards apply for existing mill tailings sites than for new sites; and (4) applying the applicable regulatory criteria to the West Chicago site. Other than simply listing these issues, however, the State does not explain in any specific or meaningful way why it will likely prevail on the merits of one or more of these issues.

Admittedly, the limit of ten pages on the length of stay motions under the Commission's Rules of Practice severely restricts the amount of argument one

²⁴ The State also makes two other claims of irreparable injury. First, it asserts that the permanent disposal of the wastes at the West Chicago site will require moving some of the mill tailings twice, thereby resulting in increased radiation doses to the general public. Even putting to one side the relatively small doses involved, Kerr-McGee has represented to us in its March 12 filing that its construction activities during the pendency of the appeals will involve only clearing and grubbing trees, excavation of contaminated soils at the site perimeter, and excavation of sediments in and around certain waste ponds. Because Kerr-McGee's activities during this period will not involve moving the mill tailings, the State's predicted harm will not occur. Next, the State argues that in the SFES the staff used the wrong basis for calculating the organ dose to the maximally exposed individual for the onsite disposal option in order to bring that dose within applicable regulatory requirements. According to the State, the staff employed annual dose equivalents, instead of committed 50-year dose equivalents, as it did for other dose projections. Once again, however, the limited amount and kind of site work Kerr-McGee has scheduled during the period the appeals are pending vitiates the State's claim of irreparable injury, regardless of the method used to calculate the organ dose at issue. Although the staff and Kerr-McGee both contend that the State is simply wrong in its assertion, we note that the affidavits submitted by the parties as well as the SFES itself demonstrate that this issue is not free of doubt. Compare SFES at 5-43 with *id.* at 5-48, Table 5.11 & n.c. In any event, we expect the parties to address fully all procedural aspects of this issue as well as the merits in their appellate briefs.

²⁵ *Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2)*, ALAB-820, 22 NRC 743, 746 n.8 (1985). See *General Public Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Unit 2)*, ALAB-914, 29 NRC 357, 361 (1989).

²⁶ *Perry*, 22 NRC at 746.

can present on such issues.²⁷ But merely listing several grounds for appeal, without more, is clearly insufficient to establish any level of probability of success on the merits, much less to show that reversal is a virtual certainty. There is little doubt that the alleged errors the State identifies could involve significant and substantial issues. Indeed, several of these issues appear to present important questions of first impression concerning the interpretation and application of the Commission's mill tailings regulations.²⁸ Nevertheless, on the basis of its stay motion, we cannot conclude that the State has made the requisite showing that it will likely prevail on the merits of its appeal on any of the matters specified.

In light of the foregoing, we need only touch upon the third and fourth criteria for the granting of relief set forth in 10 C.F.R. § 2.788(e). As the State correctly argues, we cannot reasonably conclude that either Kerr-McGee or the public at large would be harmed in any significant way if we were to grant a stay. But our conclusion in this regard is insufficient to offset the lack of any current irreparable injury to the State and any showing by the State that it is likely to prevail on the merits of its appeal. For these reasons, we have denied the State's and the City's motions for a stay pending appeal from LBP-90-9, 31 NRC 150.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

²⁷ See 10 C.F.R. § 2.788(b).

²⁸ See 10 C.F.R. Part 40, Appendix A.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Christine N. Kohl, Chairman
Alan S. Rosenthal
Howard A. Wilber

In the Matter of

Docket No. 30-16055-SP

ADVANCED MEDICAL SYSTEMS, INC.
(One Factory Row,
Geneva, OH 44041)

March 30, 1990

The Appeal Board accepts the Licensing Board's referral in LBP-89-11, 29 NRC 306 (1989), and reverses the Board's ruling concerning the applicability of the Equal Access to Justice Act to materials license suspension proceedings.

RULES OF PRACTICE: INTERLOCUTORY APPEALS (REFERRAL OF RULINGS)

Appeal boards are delegated authority to review rulings referred by licensing boards in proceedings conducted pursuant to 10 C.F.R. Part 2, Subpart G. 10 C.F.R. § 2.785(a), (b)(1).

RULES OF PRACTICE: INTERLOCUTORY APPEALS (REFERRAL OF RULINGS)

A licensing board may refer a ruling for interlocutory appellate review when the board determines that such review "is necessary to prevent detriment to the public interest or unusual delay or expense." 10 C.F.R. § 2.730(f).

RULES OF PRACTICE: INTERLOCUTORY REVIEW

An appeal board is not obliged to accept all referred rulings. *See Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-634, 13 NRC 96 (1981). Rather, this discretionary review is exercised "only where the ruling below either (1) threaten[s] the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, [can]not be alleviated by a later appeal or (2) affect[s] the basic structure of the proceeding in a pervasive or unusual manner." *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).

RULES OF PRACTICE: INTERLOCUTORY APPEALS (REFERRAL OF RULING)

Even though the *Marble Hill* criteria have not been met, an appeal board may exercise its discretion and accept a licensing board's referral if the ruling involves a question of law, has generic implications, and has not been previously addressed on appeal. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460, 464-65 (1982), *rev'd in part on other grounds*, CLI-83-19, 17 NRC 1041 (1983). *See also Rockwell International Corp.* (Rocketdyne Division), ALAB-925, 30 NRC 709, 712 n.1 (1989).

EQUAL ACCESS TO JUSTICE ACT: INTERPRETATION; ADVERSARY ADJUDICATION

The Equal Access to Justice Act (EAJA) provides that an agency that conducts an adversary adjudication shall award attorney's fees to a prevailing party unless the position of the agency was substantially justified or special circumstances make an award unjust. 5 U.S.C. § 504(a)(1). An "adversary adjudication" as used in the EAJA is an adjudication under section 554 of the Administrative Procedure Act (APA) in which the United States is represented by counsel, but excludes an adjudication for the purpose of establishing or fixing a rate or for the granting or renewing of a license. 5 U.S.C. § 504(b)(1)(c).

ADMINISTRATIVE PROCEDURE ACT: HEARINGS

An adjudication under section 554 of the APA is required by statute to be determined on the record after opportunity for an agency hearing. 5 U.S.C. § 554(a). Sections 554, 556, and 557 of the APA set forth the procedures that an agency must follow in such a formal, on-the-record hearing. 5 U.S.C. §§ 554, 556-557.

ATOMIC ENERGY ACT: INTERPRETATION; MATERIALS LICENSES; HEARINGS

EQUAL ACCESS TO JUSTICE ACT: ADVERSARY ADJUDICATION

A materials license suspension proceeding is not an "adversary adjudication" for the purposes of the EAJA because the Atomic Energy Act does not require such a hearing to be on the record pursuant to APA section 554.

ADMINISTRATIVE PROCEDURE ACT: HEARINGS

It is the enabling statute (i.e., the Atomic Energy Act), and not the APA that determines whether an on-the-record hearing is required. *Philadelphia Newspapers, Inc. v. NRC*, 727 F.2d 1195, 1202 (D.C. Cir. 1984). See *United States v. Allegheny-Ludlum Steel Corp.*, 406 U.S. 742, 756-57 (1972).

ATOMIC ENERGY ACT: INTERPRETATION

In any issue of statutory interpretation, "the 'starting point' must be the language of the statute itself." *Lewis v. United States*, 445 U.S. 55, 60 (1980) (quoting *Reiter v. Sonotone Corp.*, 442 U.S. 330, 337 (1979)).

ATOMIC ENERGY ACT: INTERPRETATION; HEARING

Whether the words "on the record" or "formal" hearing appear in a statute is not controlling on the issue of whether an APA section 554 hearing is required. See *United States v. Florida East Coast Ry.*, 410 U.S. 224, 238 (1973); *Allegheny-Ludlum*, 406 U.S. at 757; *Seacoast Anti-Pollution League v. Costle*, 572 F.2d 872, 876 (1st Cir. 1978), cert. denied, 439 U.S. 824 (1978); *Marathon Oil Co. v. EPA*, 564 F.2d 1253, 1263 (9th Cir. 1977). But "in the absence of these magic words . . . Congress must clearly indicate its intent to trigger the formal, on-the-record hearing provisions of the APA." *City of West Chicago v. NRC*, 701 F.2d 632, 641 (7th Cir. 1980), aff'g *Kerr-McGee Corp.* (West Chicago Rare Earths Facility), CLI-82-2, 15 NRC 232 (1982).

ATOMIC ENERGY ACT: INTERPRETATION; MATERIALS LICENSES; HEARINGS

RULES OF PRACTICE: HEARING REQUIREMENT (MATERIALS LICENSES)

There is no statutory requirement for formal hearings in proceedings involving the grant or amendment of a materials license. *Kerr-McGee*, 15 NRC at 252.

ATOMIC ENERGY ACT: INTERPRETATION; OPERATING LICENSES; HEARINGS

There is a longstanding assumption concerning reactor operating license and construction permit cases that the Atomic Energy Act requires on-the-record hearings. See *Union of Concerned Scientists v. NRC*, 735 F.2d 1437, 1444 n.12 (D.C. Cir. 1984), *cert. denied*, 469 U.S. 1132 (1985).

ATOMIC ENERGY ACT: INTERPRETATION

Section 181 of the Atomic Energy Act directs that "[t]he provisions of [the Administrative Procedure Act] shall apply to all agency action taken under this chapter," except where classified information is involved. 42 U.S.C. § 2231. This section alone, however, does not dictate the observance of any particular APA procedures. *Kerr-McGee*, 15 NRC at 247 n.13; *West Chicago*, 701 F.2d at 642 & n.8.

ATOMIC ENERGY ACT: LICENSE REVOCATIONS AND SUSPENSIONS; HEARINGS

Section 186b of the Atomic Energy Act does not require a formal APA, on-the-record hearing for license revocation or suspension actions; rather, it mandates that the provisions of section 558(c) of the APA be followed. 42 U.S.C. § 2236(b).

ADMINISTRATIVE PROCEDURE ACT: LICENSE REVOCATIONS AND SUSPENSIONS

Section 558(c) of the APA provides that (except in cases of willfulness or those in which the public health, interest, or safety requires otherwise) a licensee must be given written notice of a proposed withdrawal, suspension,

revocation, or annulment of a license and an opportunity to demonstrate or achieve compliance with all lawful requirements. 5 U.S.C. § 558(c).

ADMINISTRATIVE PROCEDURE ACT: LICENSE REVOCATIONS AND SUSPENSIONS; HEARINGS

Section 558(c) of the APA does not require or contemplate a section 554 hearing for license suspension or revocation actions. *Gallagher & Ascher Co. v. Simon*, 687 F.2d 1067, 1074 (7th Cir. 1982):

RULES OF PRACTICE: HEARING REQUIREMENT (LICENSE SUSPENSIONS)

The NRC has uniformly provided an opportunity for on-the-record hearings in license suspension proceedings. *See* 10 C.F.R. §§ 2.202, 2.700.

RULES OF PRACTICE: MATERIALS LICENSES; HEARINGS

The Commission's Rules of Practice provide for informal hearings in proceedings involving materials licenses, except for those concerned with enforcement actions, which still require formal adjudication under 10 C.F.R. §§ 2.700, et seq. 54 Fed. Reg. 8269, 8270, 8276 (1989) (to be codified at 10 C.F.R. § 2.1201).

EQUAL ACCESS TO JUSTICE ACT: INTERPRETATION

Longstanding agency practice cannot supply the statutory requirement for a hearing of the formality specifically required by the EAJA. *See West Chicago*, 701 F.2d at 642. *Cf. Railroad Commission of Texas v. United States*, 765 F.2d 221, 227-28 (D.C. Cir. 1985) (even if a proceeding is adjudicatory in nature, section 554 is applicable only if the enabling statute mandates a formal hearing).

EQUAL ACCESS TO JUSTICE ACT: INTERPRETATION; WAIVER OF SOVEREIGN IMMUNITY

As a waiver of sovereign immunity, the EAJA must be strictly construed. *See St. Louis Fuel and Supply Co. v. FERC*, 890 F.2d 446 (D.C. Cir. 1989); *Owens v. Brock*, 860 F.2d 1363, 1366 (6th Cir. 1988); *Smedberg Machine & Tool, Inc. v. Donovan*, 730 F.2d 1089 (7th Cir. 1984).

SOVEREIGN IMMUNITY: WAIVER

Waivers of sovereign immunity must be strictly construed. *Action on Smoking and Health v. CAB*, 724 F.2d 211, 225 (D.C. Cir. 1984).

EQUAL ACCESS TO JUSTICE ACT: INTERPRETATION

Despite the fact that, although not required by statute, an agency may voluntarily conduct formal on-the-record hearings like those described in section 554 of the APA, the EAJA does not apply to such proceedings and may not serve as the basis for an award of attorney's fees. *St. Louis Fuel*, 890 F.2d at 447-51; *Owens*, 860 F.2d at 1366-67; *Smedberg*, 730 F.2d at 1092-93. *Contra Escobar Ruiz v. INS*, 838 F.2d 1020, 1023-30 (9th Cir. 1988) (*en banc*).

APPEARANCES

Janet G. Aldrich, Silver Spring, Maryland, and Sherry J. Stein, Geneva, Ohio,
for licensee Advanced Medical Systems, Inc.

Colleen P. Woodhead for the Nuclear Regulatory Commission Staff.

DECISION

This enforcement proceeding involves the NRC staff's October 1986 suspension of the byproduct material license held by Advanced Medical Systems, Inc. (AMS). *See* 51 Fed. Reg. 37,674 (1986).¹ As pertinent here, AMS denied the violations of NRC regulatory requirements specified by the staff, and it requested the hearing offered in the license suspension order. The Commission then issued a notice of hearing to be conducted pursuant to the procedures for formal adjudications set forth in the Commission's Rules of Practice, 10 C.F.R. §§ 2.700, et seq. 51 Fed. Reg. 43,790 (1986). After reviewing certain proposed actions by AMS, however, the staff agreed to lift the license suspension, subject to several specified conditions to which AMS agreed. The AMS license was also amended so as to address the original alleged violations. In December 1987, the staff formally rescinded its suspension order. *See* Letter

¹ Under this license, AMS is authorized to install and service radiography and teletherapy units used for medical diagnosis and treatment. The staff's suspension order charges, among other things, that AMS employees were directed to perform maintenance work on teletherapy equipment despite their lack of NRC authorization and required training. *See generally* 10 C.F.R. Part 30.

from A. Bert Davis, NRC Regional Administrator, to S.S. Stein (December 3, 1987).

Following a prehearing conference before the Licensing Board, AMS filed a motion for attorney's fees and expenses. Although the case had not yet gone to hearing, AMS argued that the staff's December 1987 rescission of the suspension order was the relief it sought through its initial hearing request. Thus viewing itself as a "prevailing party," AMS claimed it is entitled to attorney's fees under the Equal Access to Justice Act (EAJA), as amended, 5 U.S.C. § 504. The staff disagreed, arguing that any relief from the suspension order was obtained outside the hearing process, thereby disqualifying AMS for a fee award under the EAJA.

The Licensing Board essentially rejected both positions. It also concluded that litigable issues remain and thus deferred its ruling as to whether AMS is yet a prevailing party entitled to fees. LBP-89-11, 29 NRC 306, 311 (1989). The Board, however, went on to raise "a more fundamental question than that of attorney's fees in *this* case. Are attorney's fees under the EAJA available to a 'prevailing party' in any Commission proceeding?" *Ibid.* (emphases in original).

The focus of the Board's attention was appropriations legislation that prohibits the Commission from paying the expenses of "parties intervening" in the agency's "regulatory or adjudicatory proceedings." See, e.g., Energy and Water Development Appropriations Act of 1989, Pub. L. No. 100-371, § 502, 102 Stat. 857 (1988). As the Board pointed out, "[t]his restriction has been interpreted to encompass any awards under the EAJA. See *Matter of Availability of Funds for Payment of Intervenor Attorney Fees — Nuclear Regulatory Commission*, 62 Comp. Gen. 692 (1983) (B-208637); *Business & Professional People for the Public Interest v. NRC*, 793 F.2d 1366 (D.C. Cir. 1986)." LBP-89-11, 29 NRC at 312. The Board, however, concluded that this restriction applies only to intervenors, and that "the EAJA continues to authorize, in appropriate circumstances, fees and expenses to licensees who, as *petitioners*, challenge NRC enforcement actions." *Ibid.* (emphasis in original). The Board stressed that intervenors in Commission proceedings appear voluntarily, whereas a licensee that is subject to an NRC enforcement action must choose between defending itself through the hearing process or submit to the staff's order. According to the Board, its decision "furthers [the] remedial purpose" of the EAJA by allowing recovery of attorney's fees by small businesses that might otherwise be deterred by limited resources from seeking vindication of their rights. *Ibid.*

The Licensing Board noted that the Commission has not yet adopted any regulations concerning requests for fees under the EAJA, and that its ruling thus raised a question of first impression. The Board also stated that "waiting for the possible receipt of an application for attorney's fees at the end of this proceeding would result in unnecessary delay, to the detriment of the Licensee and perhaps

the public fisc." *Id.* at 311 n.9. Consequently, the Board referred its ruling directly to the Commission for review, pursuant to 10 C.F.R. § 2.730(f). *Id.* at 311 n.9, 317-18. Under the Commission's Rules of Practice, however, appeal boards are delegated authority to review licensing board rulings like that here at issue. 10 C.F.R. § 2.785(a), (b)(1). *See also* 51 Fed. Reg. 43,790; Appeal Panel Chairman Memorandum and Order (March 21, 1989) (unpublished). Pursuant to that authority and because the particular EAJA issue raised and addressed by the Licensing Board had not been briefed below, we requested AMS and the staff to file briefs on that subject with us. Both parties have done so, and both urge affirmance of the Licensing Board's interlocutory ruling.

As explained below, we accept the Licensing Board's referral, but reverse its ruling and conclude that the EAJA does not apply to NRC enforcement adjudications involving the suspension of a materials license.

I.

Neither AMS nor the staff briefed the issue whether it is an appropriate exercise of our discretion to accept the Licensing Board's referral and to review its EAJA ruling. Yet this is clearly the threshold question that must be addressed before proceeding, if at all, to the merits. Under 10 C.F.R. § 2.730(f), a licensing board may refer a ruling for interlocutory appellate review when the board determines that such review "is necessary to prevent detriment to the public interest or unusual delay or expense." That provision, however, "does not oblige us to accept all referred rulings." *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-634, 13 NRC 96, 98 (1981). In general, we undertake this discretionary interlocutory review "only where the ruling below either (1) threaten[s] the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, [can]not be alleviated by a later appeal or (2) affect[s] the basic structure of the proceeding in a pervasive or unusual manner." *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).²

It is apparent here that the Licensing Board's ruling satisfies neither of the *Marble Hill* criteria. Notwithstanding its support for the Board's decision, the staff is the party adversely affected by the referred ruling, but that adverse effect is neither immediate nor irreparable; rather, it is only speculative at this early stage of the proceeding. As for a "pervasive or unusual" effect on the "basic

² These same criteria are applied to a party's request for interlocutory review (as contrasted with a licensing board's referral) via a petition for "directed certification" and to those rare instances when we ourselves direct certification of an issue. *See* 10 C.F.R. §§ 2.718(i), 2.785(b)(1); *Public Service Electric and Gas Co.* (Salem Nuclear Generating Station, Unit 1), ALAB-588, 11 NRC 533, 536 (1980).

structure of the proceeding," it is difficult to see how a ruling on a question of law concerning attorney's fees, which are not awarded until the conclusion of a case, "fundamentally alters the very shape of the ongoing adjudication." *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), ALAB-675, 15 NRC 1105, 1113 (1982).

There have nonetheless been a few instances in which we have exercised our discretion and reviewed interlocutory licensing board rulings when the alternative *Marble Hill* criteria have not been met. For example, in *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460 (1982), *rev'd in part on other grounds*, CLI-83-19, 17 NRC 1041 (1983), we accepted the Licensing Board's referral of a ruling interpreting the Commission's Rules of Practice. In doing so, we stressed that the referred ruling involved a question of law, had generic implications, and had not been previously addressed on appeal. *Id.* at 464-65. See also *Rockwell International Corp.* (Rocketdyne Division), ALAB-925, 30 NRC 709, 712 n.1 (1989).

The Licensing Board ruling now before us likewise involves solely a question of law and has not been previously addressed on appeal. It also has generic implications: the Commission has not yet adopted any final rules implementing the EAJA, but there are a number of similar enforcement adjudications now pending in which the same attorney's fees issue could potentially arise.³ In these circumstances, our acceptance of the Licensing Board's referral is amply justified and fully consistent with appeal board precedent.

II.

Our inquiry necessarily must begin by examining the pertinent statutory provisions. The EAJA states:

An agency that conducts an *adversary adjudication* shall award, to a prevailing party other than the United States, fees and other expenses incurred by that party in connection with that proceeding, unless the adjudicative officer of the agency finds that the position of the agency was substantially justified or that special circumstances make an award unjust.

5 U.S.C. § 504(a)(1) (emphasis added). As pertinent here, an "adversary adjudication" is defined as "an adjudication *under section 554* of this title in which the position of the United States is represented by counsel or otherwise, but excludes an adjudication for the purpose of establishing or fixing a rate or for the purpose of granting or renewing a license." 5 U.S.C. § 504(b)(1)(C)

³In fact, relying on the Licensing Board's ruling here at issue, another Licensing Board has suggested in its initial decision that the licensee before it is entitled to recover fees under the EAJA. See *Wrangler Laboratories*, LBP-89-39, 30 NRC 746, 761 n.18 (1989), *appeal pending*.

(emphasis added). An "adjudication under section 554" of the Administrative Procedure Act (APA) is "*required by statute* to be determined on the record after opportunity for an agency hearing." 5 U.S.C. § 554(a) (emphasis added).⁴ This section, in conjunction with sections 556 and 557, sets forth the procedures that an agency must follow in a formal, on-the-record, APA hearing, such as the provision of notice and opportunity for hearing. Other matters addressed by the APA include the prohibition of ex parte communications, the administering of oaths, the burden of proof, the submission of oral or documentary evidence, the right of cross-examination, and the necessary components of a hearing record and agency decision. 5 U.S.C. §§ 554, 556-557.

Congress passed the EAJA in 1980 to eliminate any possible economic deterrents that may prevent individuals from challenging unreasonable government action. H.R. Rep. No. 1418, 96th Cong., 2d Sess. 5-6, *reprinted in* 1980 U.S. Code Cong. & Admin. News 4984 [hereinafter, 1980 Report]. The EAJA was originally implemented for a three-year trial period, and in 1984 "sunset" provisions automatically repealed its most significant sections, including that authorizing awards in administrative actions. Pub. L. No. 96-481, § 203(c), 94 Stat. 2325 (1980). Congress, however, reauthorized and amended the EAJA in 1985, making it permanent. Pub. L. No. 99-80, 99 Stat. 183 (1985).⁵ Once again it expressed a desire to reduce "the disparity in resources between individuals, small businesses, and other organizations with limited resources and the Federal Government." H.R. Rep. No. 120, 99th Cong., 1st Sess., pt. 1, at 4, *reprinted in* 1985 U.S. Code Cong. & Admin. News 132, 133 [hereinafter, 1985 Report].

The 1985 reauthorization may be viewed as extending the EAJA into certain areas not encompassed by the 1980 legislation, thus making it easier for private litigants to recover attorneys' fees from the United States. For example, Congress clarified that the government may be liable for fees not only for taking an unjustified *litigation* position, but also for an unjustified government *action that formed the basis* of the litigation. *See id.* at 137. Certain experimental Social Security cases, in which the Secretary of Health and Human Services may be represented before an administrative law judge, were included as "adversarial adjudications" and, thus, are subject to the EAJA. *Id.* at 138-39. In addition, the 1985 amendments explicitly expanded EAJA coverage to include decisions by boards of contract appeals, even though those proceedings would not ordinarily be considered "adjudications" as defined by section 554 of the APA. *See* 5 U.S.C. § 504(b)(1)(C)(ii). Moreover, the 1985 reauthorization of the EAJA again manifests congressional intent to ensure that the fundamental purpose of

⁴ The EAJA also incorporates the definitions found in section 551 of the APA. 5 U.S.C. § 504(b)(2).

⁵ The EAJA also provides for fee awards for prevailing parties who challenge agency action in judicial proceedings. 28 U.S.C. § 2412(d). That EAJA provision, however, has no application to the issue before us.

the Act be fulfilled — i.e., that private litigants be afforded an opportunity to recover fees, where applicable. *See generally* 1985 Report at 132-51.

Despite the expansion of EAJA coverage in 1985 and its underlying purpose, however, Congress has never intended the EAJA to have unlimited applicability. This concern is highlighted in the legislative history by a statement that an award of attorney's fees in an administrative hearing

covers *only* adversary adjudications under 554 of title 5 and not rulemaking or other administrative proceedings. In part, the decision to award fees only in adversary adjudications reflects a desire to narrow the scope of the bill in order to make its costs acceptable. It also reflects a desire to limit the award of fees to situations where participants have a concrete interest at stake but nevertheless may be deterred from asserting or defending that interest because of the time and expense involved in pursuing administrative remedies.

1980 Report at 4993 (emphasis added).

The EAJA requires each agency to adopt rules "establish[ing] uniform procedures for the submission and consideration" of requests for fees under the statute. 5 U.S.C. § 504(c)(1). Thus, in 1981 the Commission published proposed EAJA rules. 46 Fed. Reg. 53,189 (1981).⁶ While they have not yet been finalized, it is instructive to examine the text of the proposed regulations. The proposed rule states (in section 2.1000): "Proceedings to grant or renew licenses are excluded by the [EAJA], but proceedings to modify, suspend, or revoke a license are covered if they are otherwise adversary adjudications within the meaning of the [EAJA]." *Id.* at 53,192.

Thus, given the Commission's proposed regulations, as well as the purpose of the EAJA, upon initial examination this case appears to be precisely the type of proceeding to which Congress intended the EAJA to apply. First, this case involves the staff's order suspending AMS's license. *See supra* pp. 276-77. Second, this enforcement proceeding is an adversary adjudication, as that term is commonly understood, conducted pursuant to the Commission's formal, "APA-like" Rules of Practice. Compare 10 C.F.R. §§ 2.700, et seq. with 5 U.S.C. §§ 554, 556-557. The Licensing Board's implicit assumption that the EAJA is applicable to this proceeding, as well as its corresponding focus on the issue of whether a party like AMS may recover its expenses from public funds in light of the restrictions in the NRC's appropriations legislation, is therefore understandable. *See* LBP-89-11, 29 NRC at 311-12.

But upon closer scrutiny, it is apparent that the Licensing Board too readily assumed an affirmative answer to the threshold question of whether this is an

⁶ As proposed, the rules would have been codified at 10 C.F.R. Part 2, Subpart J. Last year, however, the Commission promulgated other, unrelated rules that are to be codified in Subpart J. *See* 54 Fed. Reg. 14,925-55 (1989).

“adversary adjudication” as that term is used in the EAJA.⁷ As the Commission’s proposed regulation (in section 2.1000) states, the EAJA is applicable to license suspension proceedings “if they are otherwise adversary adjudications *within the meaning of the [EAJA]*.” 46 Fed. Reg. at 53,192 (emphases added). In other words, because the EAJA is applicable to APA section 554 adjudications, the real issue that must first be addressed — before any consideration is given to whether a party like AMS can properly be paid with NRC funds — is whether a materials license suspension proceeding is “*required by statute* to be determined on the record after opportunity for an agency hearing.” 5 U.S.C. § 554(a) (emphasis added).

We conclude that a materials license suspension proceeding is not an “adversary adjudication” for purposes of the EAJA because the Atomic Energy Act of 1954, as amended, does not require such a hearing to be on the record pursuant to APA section 554. Although these enforcement proceedings are uniformly trial-type adjudications akin to those conducted under section 554 of the APA, the Atomic Energy Act does not *require* that they be such. Further, pertinent authorities convince us that, even though the NRC has chosen to conduct such proceedings as on-the-record hearings, the EAJA is nevertheless inapplicable. To conclude otherwise would amount to an unauthorized waiver of sovereign immunity.

A. At the outset, we note that it is the enabling statute (i.e., the Atomic Energy Act), and not the APA that determines whether an on-the-record hearing is required. *Philadelphia Newspapers, Inc. v. NRC*, 727 F.2d 1195, 1202 (D.C. Cir. 1984). See *United States v. Allegheny-Ludlum Steel Corp.*, 406 U.S. 742, 756-57 (1972). Thus, the pivotal issue here is whether the Atomic Energy Act requires that hearings involving materials license suspensions be conducted on the record, as formal APA hearings.

In examining the Atomic Energy Act, as with any issue of statutory interpretation, “the ‘starting point’ must be the language of the statute itself.” *Lewis v. United States*, 445 U.S. 55, 60 (1980) (quoting *Reiter v. Sonotone Corp.*, 442 U.S. 330, 337 (1979)). The relevant language is found in the first sentence of section 189a(1), which states:

In any proceeding under this chapter, for the granting, suspending, revoking, or amending of any license or construction permit, . . . the Commission shall grant a *hearing* upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

⁷ The NRC staff, seemingly contrary to its own interest, likewise made the same incorrect assumption. See NRC Staff Brief (April 25, 1989). AMS, as well, did not address this issue. See AMS Brief (April 20, 1989).

42 U.S.C. § 2239(a)(1) (emphasis added). The second sentence of this section provides that, regardless of whether an interested party requests a hearing, the Commission shall hold one in connection with certain construction permit applications. *Ibid.*

While the statute mandates a hearing, it is ambiguous as to the sort of hearing that is required. See *Philadelphia Newspapers*, 727 F.2d at 1202-03. The fact that the words "on the record" or "formal" hearing do not appear in the statute, is not, in and of itself, controlling. See *United States v. Florida East Coast Ry.*, 410 U.S. 224, 238 (1973); *Allegheny-Ludlum*, 406 U.S. at 757; *Seacoast Anti-Pollution League v. Costle*, 572 F.2d 872, 876 (1st Cir. 1978), *cert. denied*, 439 U.S. 824 (1978); *Marathon Oil Co. v. EPA*, 564 F.2d 1253, 1263 (9th Cir. 1977). But "in the absence of these magic words . . . Congress must clearly indicate its intent to trigger the formal, on-the-record hearing provisions of the APA." *City of West Chicago v. NRC*, 701 F.2d 632, 641 (7th Cir. 1983), *aff'g Kerr-McGee Corp.* (West Chicago Rare Earths Facility), CLI-82-2, 15 NRC 232 (1982).⁸ Thus, the legislative history of the Atomic Energy Act must be examined to determine what type of hearing Congress intended to provide. See, e.g., *Independent Bankers Association v. Board of Governors*, 516 F.2d 1206, 1213-14 (D.C. Cir. 1975). See generally *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

The Commission has characterized the legislative history on what type of hearing is required by section 189a(1), particularly concerning materials licenses, as "unilluminating." *Kerr-McGee*, 15 NRC at 247. See *West Chicago*, 701 F.2d at 642. Both the Commission in its *Kerr-McGee* decision and the court on appeal in *West Chicago* thoroughly canvassed the legislative history of section 189a(1) from 1954, when it was added to the Atomic Energy Act, to subsequently proposed and enacted amendments. See *Kerr-McGee*, 15 NRC at 247-52; *West Chicago*, 701 F.2d at 641-45. We need not rehearse that history here. Suffice it to say that, on the basis of that history, the Commission concluded that, when Congress adopted section 189a in 1954, it did not intend "to require section 554 hearings for every single licensing case." *Kerr-McGee*, 15 NRC at 252 (emphasis added). The Commission thus found no statutory requirement for formal hearings in materials licensing cases. The court appears to go even

⁸ Interestingly, in section 234A of the Atomic Energy Act, enacted subsequent to section 189a(1), Congress unequivocally expressed its intent that the Secretary of Energy assess certain civil penalties "by order, after a determination of violation has been made on the record after an opportunity for an agency hearing pursuant to section 554 of Title 5 before an administrative law judge appointed under section 3105 of such Title 5." 42 U.S.C. § 2282a(c)(2)(A). Although we need not decide in this case whether the Atomic Energy Act requires the NRC's civil penalty proceedings to be formal, on-the-record hearings under APA section 554, it is useful to compare the pertinent statutory provision with that concerning the Department of Energy discussed above. Section 234b of the Atomic Energy Act, 42 U.S.C. § 2282(b), requires the Commission to provide notice to a person subject to the imposition of a civil penalty and "an opportunity to show in writing . . . why such penalty should not be imposed." Significantly, this provision does not mention any "hearing," on-the-record or otherwise, nor does it refer to section 554 of the APA.

further: "there is no evidence that Congress intended to require formal hearings for *all* Section 189(a) activities." *West Chicago*, 701 F.2d at 645 (emphases added).

To be sure, neither the Commission nor the court directly addressed the issue before us here – namely, whether section 189a(1) requires an on-the-record hearing in connection with a materials license *suspension*. Review of the legislative history, however, does disclose a few references to the enforcement activities of the Atomic Energy Commission (AEC), the NRC's predecessor. For example, the staff of the Joint Committee on Atomic Energy stated that, "[i]n cases involving license suspension or revocation, where the AEC's staff is cast in an accusatory role, the precautions prescribed by the Administrative Procedure Act should be carefully observed." 1 Staff of Joint Committee on Atomic Energy, 87th Cong., 1st Sess., *Improving the AEC Regulatory Process* 72 (Joint Comm. Print 1961). The Joint Committee itself stated: "Without question, more formal procedures are required in contested cases, especially those involving compliance." S. Rep. No. 1677, 87th Cong., 2d Sess., *reprinted in* 1962 *U.S. Code Cong. & Admin. News* 2207, 2213. But as the Commission stressed in *Kerr-McGee*, 15 NRC at 247-48, the overwhelming concern of Congress regarding the section 189a hearing provision was with reactor licensing and safety issues, not activities conducted under materials licenses. Thus, the few passing references in the legislative history to enforcement actions cannot reasonably support an inference that Congress affirmatively intended in section 189a(1) to require a formal on-the-record hearing under the APA for a challenge to a materials license suspension.

Other case law is consistent with the *West Chicago* and *Kerr-McGee* interpretation that all hearings under section 189a need not be formal. Even as to reactor operating license and construction permit cases, where there is a long-standing assumption that the Atomic Energy Act requires on-the-record hearings,⁹ there has never been a definitive holding to that effect. For example, in dictum in a case involving review of a portion of the Commission's emergency planning rules for reactors, the United States Court of Appeals for the District of Columbia Circuit stated that, "[a]lthough section 189(a)'s hearing provision lacks the magic words 'on the record,' there is much to suggest that the [APA's] 'on the record' procedures . . . apply." *Union of Concerned Scientists v. NRC*, 735 F.2d 1437, 1444 n.12 (D.C. Cir. 1984) (citing dictum in *Porter County Chapter of the Izaak Walton League of America, Inc. v. NRC*, 606 F.2d 1363, 1368 n.12 (D.C. Cir. 1979)), *cert. denied*, 469 U.S. 1132 (1985). The court added that "licensing is adjudication, and when a statute calls for a hearing in an adjudi-

⁹ See SECY-81-169 (March 17, 1981) at 3-4, cited by the Commission with seeming approval in the Supplementary Information accompanying its proposed EAJA rules, 46 Fed. Reg. at 53,190. See also *West Chicago*, 701 F.2d at 642-43.

cation the hearing is presumptively governed by 'on the record' procedures." *Ibid.* (citing *Costle*, 572 F.2d at 876-77). While suggesting that the outcome of *Union of Concerned Scientists* would remain unchanged, however, a more recent decision of the same court now rejects the presumption that a statutory "hearing" requirement compels an agency to undertake a formal, on-the-record proceeding. *Chemical Waste Management, Inc. v. EPA*, 873 F.2d 1477, 1482 (D.C. Cir. 1989). Cf. *San Luis Obispo Mothers for Peace v. NRC*, 751 F.2d 1287, 1316 (D.C. Cir. 1984) (hearing in reopened reactor operating license proceeding "was more comprehensive and entailed greater procedural protections than would have been required under section 189(a)" for an operating license term-extension amendment), *aff'd*, 789 F.2d 26 (*en banc*), *cert. denied*, 479 U.S. 923 (1986).

Thus, although section 189a(1) of the Atomic Energy Act requires a "hearing" for a variety of license-related activities, the type of hearing required is not necessarily the same in all cases. Irrespective of what may be required for proceedings involving reactor licenses, the Commission (in *Kerr-McGee*) and the court (in *West Chicago*) have unequivocally held that section 189a does not require an on-the-record, APA section 554 hearing for proceedings involving the grant or amendment of a materials license. But, as earlier noted, neither has squarely spoken on what type of hearing section 189a(1) *mandates* vis-a-vis a materials license *suspension* proceeding, such as that now before us. Given the legislative history and case law, however, it is not unreasonable to infer that, if section 189a(1) does not require a formal hearing for the grant or amendment of a materials license, it likewise does not require on-the-record procedures for a materials license suspension. Hence, if an APA section 554 hearing is *statutorily* mandated for such a proceeding, that requirement must be found elsewhere in the Atomic Energy Act.

Section 181 of that Act directs that "[t]he provisions of [the Administrative Procedure Act] shall apply to all agency action taken under this chapter," except where classified information is involved. 42 U.S.C. § 2231. On its face, this suggests that any hearings required by the Atomic Energy Act, such as those in section 189a(1), must be held in accordance with APA section 554 hearing procedures. The Commission, however, has rejected such an interpretation, with the apparent approval of the Seventh Circuit. *Kerr-McGee*, 15 NRC at 247 n.13; *West Chicago*, 701 F.2d at 642 & n.8. Simply stated, according to the Commission, section 181 alone does not dictate the observance of any particular APA procedures.

Section 186 of the Atomic Energy Act governs license revocations. It contains an explicit reference to the APA, but not section 554. Rather, section 186b states: "The Commission shall follow the provisions of section 9(b) of the Administrative Procedure Act in revoking any license." 42 U.S.C. § 2236(b). Original section 9(b) of the APA is now codified as 5 U.S.C. § 558(c). *Com-*

pare Pub. L. No. 404, ch. 324, §9(b), 60 Stat. 237, 242 (1946) with 5 U.S.C. § 558(c).¹⁰

Section 558(c) of the APA consists of three discrete sentences, the first and third of which are not applicable here.¹¹ Although the first sentence refers to the on-the-record procedures set forth in sections 556 and 557 of the APA, it pertains to license application proceedings for which a section 554 hearing is otherwise required. See *Attorney General's Manual on the Administrative Procedure Act* (1947) at 89-90 [hereinafter, *A.G. Manual*]. The third sentence refers to license renewals and precludes expiration of a license where a renewal application is timely filed. The second sentence of section 558(c) addresses license suspension and revocation actions and, thus, is directly relevant here. It mandates that (except in cases of willfulness or when the public health, interest, or safety requires otherwise), prior to a license withdrawal, suspension, revocation, or annulment, a licensee be given written notice of the proposed action and an "opportunity to demonstrate or achieve compliance with all lawful requirements." 5 U.S.C. § 558(c).

Significantly, this portion of section 558(c) does not require or contemplate a section 554 hearing. As the court held in *Gallagher & Ascher Co. v. Simon*, 687 F.2d 1067, 1074 (7th Cir. 1982), section 558(c)

does not mandate any sort of hearing, let alone the trial-type hearing described in [APA] sections 556 and 557. The legislative history of the section confirms this literal interpretation and demonstrates that the sole purpose of the second sentence was to provide a licensee threatened with the termination of its license an opportunity to correct its transgressions before actual suspension or revocation of its license resulted. * * * [T]he special treatment accorded licensees was not intended to trigger a right to an adjudicatory hearing meeting the requirements of sections 556 and 557. * * * [S]ection 558(c) does not itself create a right to a full adjudicatory hearing . . . but simply imposes separate procedural requirements

¹⁰For our purposes here, we assume, without deciding, that a license suspension is subsumed within a license revocation. Thus, if a formal hearing is found not to be required for the more serious regulatory action of a license revocation, it can scarcely be required for a license suspension. In this regard, it is also worth noting that section 558(c) of the APA applies to a license "withdrawal, suspension, revocation, or annulment." 5 U.S.C. § 558(c) (emphasis added).

¹¹Section 558(c) provides, *in toto*:

When application is made for a license required by law, the agency, with due regard for the rights and privileges of all the interested parties or adversely affected persons and within a reasonable time, shall set and complete proceedings required to be conducted in accordance with sections 556 and 557 of this title or other proceedings required by law and shall make its decision. Except in cases of willfulness or those in which public health, interest, or safety requires otherwise, the withdrawal, suspension, revocation, or annulment of a license is lawful only if, before the institution of agency proceedings therefor, the licensee has been given —

- (1) notice by the agency in writing of the facts or conduct which may warrant the action; and
- (2) opportunity to demonstrate or achieve compliance with all lawful requirements.

When the licensee has made timely and sufficient application for a renewal or a new license in accordance with agency rules, a license with reference to an activity of a continuing nature does not expire until the application has been finally determined by the agency.

in addition to those procedures that may otherwise be required under section 554(a) of the APA.

See *A.G. Manual* at 89-91.

In *Porter County*, however, the court stated that the reference to APA section 558(c) in section 186 of the Atomic Energy Act "makes the formal adjudication procedures of the [APA] applicable to any revocation proceeding." 606 F.2d at 1368 & n.12. But *Gallagher & Ascher* persuasively criticizes this dictum as "brief" and supported with "no judicial authority or legislative history." 687 F.2d at 1073-74. Indeed, it is evident that, in *Porter County*, 606 F.2d at 1368 n.12, the court mistakenly read the reference to APA on-the-record procedures in the first sentence of section 558(c) as pertinent to the wholly separate second sentence governing license suspensions and revocations. See *supra* p. 286. See also 2 K. Davis, *Administrative Law Treatise* § 12:10, at 450 (2d ed. 1979). Thus, we conclude that section 186b of the Atomic Energy Act also does not require formal, on-the-record, APA section 554 hearings for license suspension proceedings.

Despite this apparent lack of a statutory mandate compelling formal APA hearings in license suspension proceedings, the Atomic Energy Act, of course, does not preclude them. Accordingly, the NRC has uniformly provided an opportunity for on-the-record hearings in such cases, including the instant one. See 10 C.F.R. §§ 2.202, 2.700; 51 Fed. Reg. at 43,790.¹² But longstanding Commission practice cannot supply the *statutory requirement* for a hearing of the formality specifically contemplated by the EAJA. See *West Chicago*, 701 F.2d at 642. See also *infra* note 14. Cf. *Railroad Commission of Texas v. United States*, 765 F.2d 221, 227-28 (D.C. Cir. 1985) (even if a proceeding is adjudicatory in nature, section 554 is applicable only if the enabling statute mandates a formal hearing).

Furthermore, there is no clear indication in the administrative history of the agency's regulations, in particular, 10 C.F.R. §§ 2.202, 2.700, that the Commission believes that on-the-record hearings in enforcement proceedings are required by the Atomic Energy Act. See, e.g., 27 Fed. Reg. 377 (1962). This is reinforced by the discussion accompanying the proposed EAJA rules, which poses but leaves unanswered the question of whether materials license suspension cases, such as this one, are required to be conducted on the record and therefore would be subject to EAJA coverage. 46 Fed. Reg. at 53,190 (citing SECY-81-169 at 3-4).

¹² As a result of the court's decision in *West Chicago* that materials license proceedings need not be formal adjudications, the Commission recently promulgated special rules providing informal hearings in such matters. Enforcement proceedings involving materials licensees, however, were expressly excluded from the new rules, leaving those cases for adjudication pursuant to the Commission's formal procedures in 10 C.F.R. §§ 2.700, et seq. 54 Fed. Reg. 8269, 8270, 8276 (1989) (to be codified at 10 C.F.R. § 2.1201).

NRC case law is similarly inconclusive on the issue of whether the Commission believes that the Atomic Energy Act requires its enforcement hearings to be formal in nature. In two early enforcement proceedings involving the Midland reactor facility, for example, the Commission referred to the procedural protections afforded to the licensee by section 558(c) of the APA. It also mentioned section 181 of the Atomic Energy Act and noted the existence of some hearing rights. See *Consumers Power Co.* (Midland Plant, Units 1 and 2), CLI-73-38, 6 AEC 1082, 1083-84 (1973); *id.*, CLI-74-3, 7 AEC 7, 9-10 & n.6 (1974). In neither case, however, did the Commission address exactly what type of hearing it believed was required by the Atomic Energy Act. Moreover, as discussed *supra* p. 285, the Commission has clearly enunciated more recently its view that section 181 does not automatically require APA section 554 procedures to be employed in all agency hearings.

Northern Indiana Public Service Co. (Bailly Generating Station, Nuclear-1), CLI-78-7, 7 NRC 429, 431-32 (1978), implies that the Commission considers certain show cause proceedings to be required to be conducted under section 554. The decision, however, does not squarely address this issue. Furthermore, *Bailly*, like the two *Midland* cases, involved reactors holding construction permits, allowing no reasonable inferences to be drawn regarding the Commission's views on the nature of the hearing required for a materials license enforcement adjudication. Finally, *Bailly* was affirmed in *Porter County*, 606 F.2d 1363, which, as noted above, has been convincingly criticized on the issue of the APA hearing requirement. See *supra* p. 287.

In conclusion, neither the Atomic Energy Act and its legislative history nor the APA and relevant case law reflect congressional intent that formal, on-the-record hearings conducted under section 554 of the APA are required for materials license suspension cases. Similarly, the Commission's regulations, case law, and precedent — while affording licensees such formal hearings in enforcement proceedings — are not the equivalent of a statutory requirement for an on-the-record hearing.

B. Despite our conclusion above, the fundamental purpose of the EAJA (see *supra* p. 280) compels us to consider further whether the EAJA nonetheless applies when the Commission conducts formal, on-the-record hearings in the absence of a statutory requirement for such. The views of the Administrative Conference of the United States (ACUS) are significant in this regard because of the role that ACUS plays in the implementation of EAJA regulations. The EAJA requires each agency to consult with the Chairman of ACUS before implementing its own EAJA regulations. 5 U.S.C. § 504(c)(1). Accordingly, ACUS has issued Model Rules "designed to assist agencies in adopting or amending their own regulations for implementation" of the EAJA. 51 Fed. Reg. 16,659 (1986) (codified at 1 C.F.R. Part 315). Moreover, in issuing its proposed rules, the

NRC relied on the 1981 version of the ACUS Model Rules. 46 Fed. Reg. at 53,189.

In its original proposed Model Rules, ACUS would have extended the EAJA's applicability to those proceedings in which an agency observes the formal procedures of APA section 554 as a matter of discretion. 46 Fed. Reg. 15,895, 15,902 (1981) (proposed § 0.103(b)). As ACUS explained, the rationale was to "avoid extended debate about whether particular proceedings are 'under' section 554. If the proceeding otherwise qualifies as an 'adversary adjudication' and involves issues complex enough, or individual rights important enough, to justify the use of formal procedures, . . . it is within the intentment of the [EAJA]." *Id.* at 15,896. Commenters on the proposal, however, criticized this approach as (1) distorting the plain meaning of the EAJA's language, (2) giving agencies an incentive not to use formal hearing procedures, and (3) impermissibly construing a waiver of sovereign immunity too broadly. 46 Fed. Reg. 32,900, 32,901 (1981). Because ACUS was concerned that its original, albeit tentative, interpretation would provide for broader applicability of the EAJA than Congress intended, it eliminated from the final 1981 Model Rules the draft provision suggesting that EAJA awards would be available when agencies voluntarily used section 554 procedures. *Id.* at 32,901, 32,912.

Thereafter, when it revised its Model Rules in 1985 to incorporate changes in the EAJA resulting from reauthorization, ACUS further clarified its rejection of the original liberal interpretation of the EAJA. It proposed the elimination of some ambiguous language in § 0.103(b) so as to preclude any notion "that agencies have the power to award fees in proceedings that are not explicitly covered by the statute." 50 Fed. Reg. 46,249, 46,251, 46,253 (1985). The final Revised Model Rules reflect this change. 51 Fed. Reg. at 16,665-66; 1 C.F.R. § 315.103. Thus, ACUS has concluded that, even though an agency voluntarily affords a formal, on-the-record hearing, the EAJA is not applicable unless a section 554 hearing is statutorily required.

Several courts of appeals have reached this issue, with varying results. In *Escobar Ruiz v. INS*, 838 F.2d 1020 (9th Cir. 1988) (*en banc*), the Ninth Circuit found the EAJA to have broad applicability. *Accord Abela v. Gustafson*, 888 F.2d 1258, 1263-64 (9th Cir. 1989) (EAJA applies to naturalization proceedings). *But see Haire v. United States*, 869 F.2d 531, 534-36 (9th Cir. 1989) (distinguishing *Escobar Ruiz*). In holding that deportation hearings are covered by the EAJA, the court liberally interpreted the phrase "an adjudication under section 554" (appearing in section 504(b)(1)(C) of the EAJA) to be an adjudication "as defined by" or "under the meaning of" the APA. *Escobar Ruiz*, 838 F.2d at 1023-25. Relying heavily upon the purpose of the EAJA, *id.* at 1025-26, the court considered it appropriate to examine the way in which proceedings are actually conducted, "rather than determining whether such hearings are technically governed by the APA," *id.* at 1023.

In reaching this determination, the *Escobar Ruiz* court relied upon its understanding of the ACUS position on this issue, quoting from the ACUS commentary accompanying the 1981 Model Rules. *Id.* at 1024. Although the court acknowledges that ACUS reversed its “earlier position that proceedings in which agencies *voluntarily* use the procedures of section 554 are covered by the EAJA,” it nonetheless maintains that ACUS still believes “the section 554 reference should be interpreted broadly.” *Id.* at 1024 n.7 (emphasis in original). Compare 46 Fed. Reg. at 32,901 and *supra* p. 289. The court makes no mention of the fact that, as a waiver of sovereign immunity, the EAJA must be strictly construed. See *infra* pp. 290-91. Perhaps most curious, however, is the Ninth Circuit’s actual holding in *Escobar Ruiz*: “Deportation proceedings are covered by the EAJA because they are *required by statute to be determined on the record* after opportunity for a hearing and therefore constitute adjudications under section 554 of the APA.” 838 F.2d at 1030 (emphasis added). Having expended considerable effort to avoid the technicalities of statutory construction, the court’s literal conclusion suggests otherwise.

The Sixth Circuit criticizes *Escobar Ruiz* for ignoring the precept that waivers of sovereign immunity must be strictly construed. *Owens v. Brock*, 860 F.2d 1363, 1366 (6th Cir. 1988). *Owens* also differs with the *Escobar Ruiz* interpretation of the ACUS view. *Ibid.* Finally, *Owens* distinguishes the Ninth Circuit case on the ground that it is a deportation case, noting, “[i]t is evident that [*Escobar Ruiz*] was influenced in some degree by the fact that potential deportees lacking language skills have a particular need for legal assistance in complicated INS proceedings.” *Ibid.* The Sixth Circuit goes on to conclude that benefit determinations under the Federal Employees Compensation Act are not adversary adjudications for the purpose of the EAJA. *Id.* at 1367.

In a decision that predates both *Escobar Ruiz* and *Owens*, the Seventh Circuit similarly felt compelled to construe the EAJA strictly. *Smedberg Machine & Tool, Inc. v. Donovan*, 730 F.2d 1089 (7th Cir. 1984). Although not required by statute, the Department of Labor’s regulations authorized formal adjudicatory hearings before an administrative law judge in alien labor certification proceedings. *Id.* at 1092. Because the EAJA operates as a waiver of sovereign immunity and must therefore be strictly construed, the court in *Smedberg* concluded that the EAJA does not apply to the Labor Department proceedings there at issue. *Id.* at 1092-93.

The District of Columbia Circuit’s recent decision in *St. Louis Fuel and Supply Co. v. FERC*, 890 F.2d 446 (D.C. Cir. 1989), is in line with those of the Sixth and Seventh Circuits. The court held that a Department of Energy (DOE) proceeding involving a fuel price regulation remedial order is not an adversary adjudication for the purpose of the EAJA. *Id.* at 447. Like section 189a(1) of the Atomic Energy Act, the pertinent provision of the DOE Organization Act affords “an opportunity for a hearing,” without reference to APA section 554 or

mention of whether it must be "on the record." Unlike the Atomic Energy Act, however, the statute prescribes minimum procedural requirements, which DOE enlarged by regulation, so that such proceedings are essentially the equivalent of a section 554 hearing. *Id.* at 448. Nevertheless, after reviewing the language, structure, and legislative history of the DOE Organization Act, the court in *St. Louis Fuel* found no indication that Congress intended a formal hearing. *Id.* at 447-49. Citing to the *West Chicago* case, among others, the court states: "What counts is whether the *statute* indicates that Congress intended to *require* full agency adherence to all section 554 procedural components." *Id.* at 448-49 (first emphasis added).

The District of Columbia Circuit then criticizes *Escobar Ruiz* for "stretch[ing]" the language of the EAJA to encompass adjudications that are "like or resembl[er] those 'under section 554.'" *Id.* at 449.¹³ The court stressed its obligation "to honor the canon that waivers of the sovereign's immunity must be strictly construed." *Id.* at 449-50. *See Action on Smoking and Health v. CAB*, 724 F.2d 211, 225 (D.C. Cir. 1984). After thorough consideration of the EAJA's legislative history, the court concludes:

Congress wrote into EAJA a bright-line rule. Attorneys' fees may be awarded in adversary adjudications that are governed by APA section 554; they may not be awarded in adversary adjudications that Congress did not subject to that section.

St. Louis Fuel, 890 F.2d at 451.¹⁴

In conclusion, the weight of judicial authority and the interpretation of the Administrative Conference militate in favor of strict construction of the EAJA, so as to avoid creating a waiver of sovereign immunity that Congress did not intend. Despite the fact that, although not required by statute, the Commission conducts materials license suspension cases as formal, on-the-record hearings like those described by section 554 of the APA, the EAJA does not apply to such proceedings and may not serve as the basis for an award of attorney's fees.

¹³ Curiously, however, this court misinterprets the ACUS position similar to the way the Ninth Circuit did in *Escobar Ruiz*. 890 F.2d at 451. *See supra* p. 290.

¹⁴ We need not examine here the circumstances in which, although not required directly by statute, a formal, on-the-record hearing might nonetheless be mandated by due process considerations. *Cf. Wong Yang Sung v. McGrath*, 339 U.S. 33, 50 (1950). *But see Mathews v. Eldridge*, 424 U.S. 319, 333-35 (1976). For, to repeat, the waiver of sovereign immunity contained in the EAJA is confined to situations in which there is a *statutory* requirement for such a hearing. In this connection, we have discovered nothing in the legislative history of the EAJA or the pertinent case law to suggest a congressional intent to extend the EAJA to cases in which due process, rather than a statute, requires an APA section 554 hearing. Inasmuch as litigants against the government manifestly have no constitutional right to be compensated out of public funds for their attorneys' fees, it cannot be doubted that Congress has the power to limit the reach of the EAJA in this fashion.

We accept the Licensing Board's referral in LBP-89-11, 29 NRC 306, and *reverse* the Board's ruling concerning the applicability of the Equal Access to Justice Act to materials license suspension proceedings.

It is so ORDERED.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the Appeal
Board

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judge:

Peter B. Bloch

In the Matter of

Docket No. 70-25
(ASLBP No. 89-594-01-ML)
(Special Nuclear Material
License No. SNM-21)
(Request to Renew
to October 1990)

ROCKWELL INTERNATIONAL
CORPORATION
(Rocketdyne Division)

March 19, 1990

The Presiding Officer in this proceeding, which is governed by Subpart L of 10 C.F.R. Part 2, grants in part Applicant's motion to strike certain concerns and parts of concerns of the Intervenor pursuant to 10 C.F.R. § 2.1233(e).

RULES OF PRACTICE: SUBPART L (MOTIONS TO STRIKE)

The Presiding Officer reviews each of the concerns mentioned in Applicant's motion to strike and determines, based on specific facts related to each concern, what portions of the motion to strike may be appropriately granted.

**RULES OF PRACTICE: SUBPART L (MOTIONS TO STRIKE;
REDUNDANCY)**

To strike a concern or a part of a concern on the ground of redundancy, the Presiding Officer must find redundancy within the filing of a particular

intervenor. Alleged redundancy with another intervenor does not create grounds for a motion to strike.

RULES OF PRACTICE: SUBPART L (SETTLEMENT)

The presiding officer suggests that the parties reassess their settlement positions and consider further negotiations leading toward settlement.

TECHNICAL ISSUES DISCUSSED

Applicability of quality assurance (Appendix B to Part 50) to plutonium processing and fuel fabrication plants.

MEMORANDUM AND ORDER **(Motion to Strike)**

On March 1, 1990, Rockwell International Corporation (Applicant) filed a "Motion to Strike Portions of Intervenor's Written Presentations and Brief in Support" (Motion).¹ In the Motion, Rockwell argued that all or portions of the basic case filed by each of the Intervenor's was cumulative, irrelevant, immaterial or unreliable.² It asked that each such portion be struck from the record and that where all concerns of an intervenor were struck that the intervenor be dismissed.

Applicant argues that the criteria for written presentations in 10 C.F.R. § 2.1233(c) are relevant to the determination of its motion. In particular, the presentation of parties is required to:

describe in detail any deficiency or omission in the license application, with references to any particular section or portion of the application considered deficient, give a detailed statement of reasons why any particular section or portion is deficient or why any omission is material, and describe in detail what relief is sought with respect to each deficiency or omission.³

¹ Los Angeles Physicians for Social Responsibility and Jon Scott filed their "Response" on March 8, 1990. Responses filed on March 9 are: Southern California Federation of Scientists, Estelle Lit and Jerome Raskin and Committee to Bridge the Gap.

² 10 C.F.R. § 2.1233(e) states:

the presiding officer may, on motion . . . , strike any portion of a written presentation or a response to written question that is cumulative, irrelevant, immaterial, or unreliable.

³ Applicants also cite a portion of my Memorandum and Order of October 5, 1989 (LBP-89-27, 30 NRC 265), that paraphrased the intent of the regulations and also required citation of a relevant reference to a licensing standard contained in 10 C.F.R. Part 70.

I have reviewed each portion of Rockwell's motion and each of the answers to that motion. My decisions and the reasons for them are set forth in this Memorandum.

I. REDUNDANCY

Applicant prepared a matrix of Intervenor's concerns and attached it as Exhibit 1 to its motion. It argues that the matrix shows "a large amount of redundancy." As relief, Applicant seeks to have redundant concerns eliminated.

I agree with the Intervenor in their several responses that it would be incorrect to grant this request. Each of the Intervenor was admitted as a separate party, without consolidation of any of the Intervenor.⁴ Applicant is arguing principally that, while some of the Intervenor's individual filings suffered from redundancy, when placed side by side, they are so redundant that one of the filings should be struck. Applicant's motion also states, without explanation of the process of selection in which they engaged or in *which* I should engage, which of the filings should be struck.

I have concluded, however, that Intervenor are separate parties and that there was no requirement that they eliminate redundancy among their filings. I am in agreement with the Committee to Bridge the Gap⁵ that:

All in all, . . . the parties did an excellent job in presenting their individual cases in a way that avoided unnecessary overlap, given the uncertainty in not really knowing in any detail what the other parties were going to say in their briefs.

I also find that this method of loose coordination among multiple Intervenor is permissible in an informal proceeding of this nature.

Furthermore, in this case, Applicant has already constructed the matrix found in Exhibit 1, setting forth which portions of the different filings relate to one another. I suggest that it can respond efficiently by responding to each *concern*, as it has been fleshed out in the written filings, and that it cover all material about the concern filed by each of the Intervenor. This may be done in any clear fashion, such as: discussing material presented by one intervenor and footnoting the fact that another presented identical material; or discussing sequentially within a particular concern material presented by different Intervenor.

⁴ See, for example, "Memorandum and Order (Admitting Committee to Bridge the Gap, Southern California Federation of Scientists, and Susana Knolls Homeowners Association)," December 7, 1989 (unpublished) at 1.

⁵ Response at 5.

Should I find that there is a need for oral argument or an evidentiary hearing, redundancy would of course be destructive of efficiency; and I would consider, at that time, appointing a lead intervenor for each concern or part of a concern (pursuant to the Intervenor's own wishes).

II. APPLICABILITY OF APPENDIX B

Because Rockwell has made the significant statement, in response to several concerns, that its application does not require a quality assurance plan, I find it appropriate to address that argument prior to reviewing the concerns separately.

It is my conclusion — despite staff advice to the contrary⁶ — that Appendix B *did* apply to the Rockwell license and apparently continues to apply to the extended license.⁷ As the Staff stated in its memorandum, 10 C.F.R. § 70.4(r) provides:

"Plutonium processing and fuel fabrication plant" means a plant in which the following operations or activities are conducted: (1) Operations for manufacture of reactor fuel containing plutonium including *any* of the following: . . . (iv) recovery of scrap material; *or*
(2) research and development activities involving any of the operations described in paragraph (r)(1) of this section [Emphasis and indentation added.]

Pursuant to this section, Rockwell appears to be running a "plutonium processing and fuel fabrication plant," however contrary this definition may be to the popular understanding of those words. It is covered by this definition because it has been involved in recovery of scrap material⁸ and — under the TRUMP-S proposal as I now understand it — may well continue to be involved in recovery of scrap material. In addition, it is involved in research and development activities that involve recovery of scrap material and appear, therefore, to be even more clearly qualified under prong (2)⁹ of the regulatory definition.

Because Rockwell is operating what appears to be a plutonium processing and fuel fabrication plant, as defined in the regulations, it is subject to 10

⁶ See Colleen P. Woodhead (through Stuart A. Treby and Lawrence J. Chandler) Memorandum to Peter B. Bloch, "Rockwell Board Orders of September 18 and October 4, 1989," November 30, 1989 (served December 7, 1989).

⁷ The record is unclear about whether this proceeding relates to Rockwell's request to extend a previous license or whether the terms of the previous license are being amended to such an extent that this is really a new license application. I do not, however, plan to act on this complex question without a motion from a party.

⁸ Rockwell is not precluded from proving that it has not been involved in the recovery of scrap material or that it will not be involved in such recovery. I note that the regulations have no further definition of the meaning of scrap recovery.

⁹ Prong (2) of the regulation is preceded by the disjunctive "or." Hence, the definition is applicable if either of the two prongs is met.

C.F.R. § 70.22(f) and to footnote 2 to that section, requiring compliance with Appendix B to 10 C.F.R. Part 50.

In addition to Appendix B, Applicant also must comply with the rigorous quality requirements of 10 C.F.R. § 70.57, relating to a measurement control program for special nuclear materials control and accounting and to the reporting requirements of 10 C.F.R. § 70.59 relating to effluent releases.

III. GENERAL COMMENTS ON INTERVENORS' CASE

In reviewing the many facets of Intervenor's case, I became sympathetic to Rockwell's difficulty in having to respond to so many apparently unconnected points. However, closer analysis suggests that Rockwell can focus on the Direct Case of the Committee to Bridge the Gap¹⁰ and of Jon Scott. Those direct cases appear to state the principal arguments for which relief might be granted. (There are, of course, other arguments that will not be struck in this Memorandum and Order and that must, therefore, be answered.)

To summarize, the principal concerns of Intervenor (restated in simplified form) appear to be:

1. Applicant has not demonstrated that it has appropriate character¹¹ — as indicated by the care they have shown in their various activities at Santa Susana — to properly fulfill its responsibilities under the license that it seeks.¹²

¹⁰ Applicant did not move to strike any portion of the written filing of the Committee to Bridge the Gap, except in what appears to be a typographical error. See footnote 1 of Committee to Bridge the Gap's Response.

¹¹ See *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), ALAB-799, 22 NRC 360, 370-75 (1985); *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), LBP-84-13, 19 NRC 659, 669-679 (1984).

¹² The Atomic Energy Act of 1954, as amended, § 182a. As pointed out by the Committee to Bridge the Gap, at 2, the following regulatory standards are also relevant:

No license will be issued by the Commission to any person within the United States if the Commission finds that the issuance of such license would be inimical to the common defense and security or would constitute an unreasonable risk to the health and safety of the public. 10 C.F.R. § 70.31(d).

The applicant is qualified by reason of training and experience to use the material for the purpose requested in accordance with the regulations in this chapter. 10 C.F.R. § 73.23(a)(2).

The applicant's proposed equipment and facilities are adequate to protect health and minimize danger to life or property. 10 C.F.R. § 70.23(a)(3).

The applicant's proposed procedures to protect health and to minimize danger to life or property are adequate. 10 C.F.R. § 70.23(a)(4). (In this regard I have already discussed, above, the applicability of the quality assurance requirements of 10 C.F.R. Part 50, Appendix B.)

[Licensee must] make every reasonable effort to maintain radiation exposures, and releases of radioactive materials in effluents to unrestricted areas, as low as reasonably achievable. 10 C.F.R. § 20.1(b).

Licensee has not adequately accounted for nuclear materials nor maintained appropriate security procedures to protect against the loss of those materials. 10 C.F.R. §§ 70.58, 70.51, 70.22(k), and 73.57.

The principal thrust of Intervenor's argument is that Rockwell has been careless in preventing the release of radioactive materials both in its licensed activities and its onsite DOE activities and careless as well in monitoring

Continued

2. Applicant has not demonstrated that it has taken adequate measures to prevent and control a fire or explosion that could cause a release of the special nuclear materials that it seeks to use or possess.
3. There must be at least an agency finding of "No Significant Impact" pursuant to 10 C.F.R. § 51.32; and there must also be an Environmental Impact Statement pursuant to the National Environmental Policy Act, § 4332(C) and 10 C.F.R. § 51.20(a)(7).

IV. STATEMENTS NOT SUPPORTED BY RELIABLE EVIDENCE

Sections 2.1233(d) and (e) govern my action on a motion to strike. They state:

(d) A party or § 2.1211(b) participant making an initial written presentation shall submit with its presentation or identify by reference to a generally available publication or source, such as the hearing file, all documentary data, informational material, or other written evidence upon which it relies to support or illustrate each omission or deficiency complained of. Thereafter, additional documentary data, informational material, or other written evidence may be submitted or referenced by any party, other than the NRC staff, or by any § 2.1211(b) participant in a written presentation or in response to a written question only as the presiding officer, in his or her discretion, permits.

(e) Strict rules of evidence do not apply to written submissions under this section, but *the presiding officer may, on motion or on the presiding officer's own initiative, strike any portion of a written presentation or a response to a written question that is cumulative, irrelevant, immaterial or unreliable.* [Emphasis added.]

These sections suggest that I strike portions of the written filings that are founded on unreliable evidence. Given the numerous parties involved and the complexity of the case, I have decided that it is appropriate to exercise my discretion in this fashion.

Rockwell has alleged that there are several such portions and I will address those allegations in this portion of my memorandum.

In my Scheduling Order, LBP-89-27, October 5, 1989, 30 NRC at 268, 269, I set forth a procedure through which Intervenors may ask me to propose questions to Applicant. It involved two stages, the first of which was to state crucial areas of missing information and the second of which was — at the time the Intervenors analyze the record — to "[d]iscuss the need for me to ask

and cleaning up its spills. To deny a license on this ground, I would have to conclude that Rockwell has not demonstrated, in light of a record of carelessness, that there is an adequate assurance of safety for it to be permitted to operate the Santa Susana Laboratory for the intended purpose.

. . . questions or to call witnesses.”¹³ That Order did not, however, address the relationship between specifying areas for questions and submitting a written filing that would withstand a motion to strike.

I have concluded that whenever a concern remains in the case, the presentation of unsubstantiated arguments that may have been struck serves to outline a need for questions that may be followed up subsequently with more detailed discussion to persuade me to ask questions. Hence, the striking of a *relevant* portion of a concern has the effect of preserving that portion for possible future questions. In addition, striking of a concern that is relevant to a remaining concern *of that Intervenor* may serve the same purpose: preserving an area in which other questions may be asked. Should a party that remains in the case — in an appropriate later filing — substantiate an important safety concern related to material struck in this order,¹⁴ I would consider reversing my decision to strike at that time. I would note that decisions to strike are discretionary. I am told by the regulations that I “may” strike, but not that I must. § 2.1233(e). Hence, I have the authority to reverse my decision subsequently for sufficient reason.

A. Concern 1 of LAPSR

Applicant challenges Concern 1 of the Los Angeles Physicians for Social Responsibility (LAPSR). In that concern, LAPSR generally challenges Rockwell’s qualification to handle special nuclear materials. That general allegation, because of a citation to one memorandum and a reference to filings of other Intervenor’s shall not be struck.

However, other portions of the concern are more suspect. For example, LAPSR cites 40 C.F.R. Part 190 (Environmental Radiation Protection Standards for Nuclear Power Operations), § 190.10 and 40 C.F.R. Part 61 (National Emission Standards for Hazardous Air Pollutants), § 61.102. These sections establish maximum radiation doses to the public. We agree with Applicant that LAPSR has not indicated any portion of the application or any documentation that directly calls these limits into question, aside from general questions about Applicant’s character. Hence, these regulatory references shall be struck.

On the other hand, Applicant appears to concede in their motion that LAPSR has referenced the Memorandum from Gregg D. Dempsey of EPA, July 28,

¹³ There was an analogous requirement for identifying questions imposed on Applicant at 9; however, on review there does not seem to be complete parallelism. I intend, however, that Applicant shall identify areas in which it needs information in its Response and that if it needs questions answered or witnesses called at the time of its Analysis, that it must support its requests with reasons.

¹⁴ In the sense that I am preserving a limited option to reinstate struck concerns, my order to strike may be considered to be a provisional decision to strike. Subsequent reinstatement will, of course, require more than just the documentation that was initially required and not supplied. I must be persuaded through documentation that there is an important safety or environmental matter that requires determination.

1989, Jon Scott's Exhibit 1. I find the reference to that report to be clear and conclude that it shall not be struck.

However, LAPSR's concern makes a broad hand wave toward an EPA Report of July 28, 1989, which is already in our file. It says the report "stands, we believe as an indictment of the monitoring practices by Rockwell." I have concluded that the report is a complex one and that this general, unanalyzed reference does not show any connection between the report and the conclusion for which LAPSR argues. While some might think the report an indictment, others might not. Given the unanalyzed, conclusional statement, were Applicant to respond it would first have to determine the part of the document to which LAPSR was referring. I do not consider such a general reference, without specific discussion, to be adequate. Hence, the reference to the EPA report is struck as unreliable.

Furthermore, everything after the first sentence in the full paragraph beginning near the top of page 4 is struck because there is no documentation concerning alleged statements of Secretary Watkins about "nuclear culture," "sloppy practices and lax safety attitude," or a lack of qualification for Rockwell to handle plutonium in Colorado for the Department of Energy.

The entire section on plutonium risks also shall be struck because it is not related to anything in the application or the regulations. There is no doubt about the extreme toxicity of plutonium. Furthermore, were this section related to the application — as, for example, the Committee to Bridge the Gap has done in its written filing at 7-11 — it would have been admissible.

B. Concern 2 of LAPSR

This concern, relating to increased population density near the Santa Susana Laboratory, is not separately addressed in this written filing but relies on a portion of the written filing of the Susana Knolls Homeowners Association (Homeowners). By referencing the discussion of population density in Homeowners' filing, LAPSR has not saved its concern. Homeowners concludes that there are in excess of 100,000 people living within 5 miles of the Santa Susana Laboratory; and that figure does not seem to be inconsistent with the data utilized by Applicant. (See Section AM, below, discussing an analogous concern of Lit-Raskin.) There has been no linkage made between alleged population growth and an impermissible risk of radiation exposure. Hence, this concern is unsubstantiated and shall be struck.

C. Concern 3 of LAPSRS

There is no need to strike this concern, which relates to allegedly nonconservative practices in estimating possible plutonium releases in the event of a fire. Applicant plans to address it by addressing the referenced concern of the Committee to Bridge the Gap.

D. Concern 4 of LAPSRS

There do not appear to be any regulations covering this concern about cumulative effects from radioactive and chemical substances. Nor does LAPSRS provide any reason to believe that there are cumulative effects.¹⁵

Section 70.22(i)(3)(xiii), which requires certification of compliance with certain regulations affecting hazardous chemicals, does not buttress any such claim of a *cumulative* effect. However, Applicant should respond to this portion of the concern by indicating where in its application it has complied with this regulatory requirement — as there does not appear to be any section that makes this certification.

Since decontamination and decommissioning are not a part of this case and since LAPSRS does not present any evidence concerning possible interference between the proposed license activities and decontamination and decommissioning, ¶ (h) (at 10), which deals with this subject, shall also be struck.

E. Concern 5 of LAPSRS

This concern relates to worker health and safety. However, LAPSRS does not make appropriate reference to particular parts of the application, to evidence, or to the regulations. Furthermore, they do not find fault with any of the measures taken to protect workers in an emergency. The closest their concern comes to being substantiated is with respect to the allegation that the emergency plan does not estimate doses to workers in the event of an accident. However, there is no requirement for an exercise in which Applicant would estimate the many possible accidents and the doses workers might receive in each. That kind of

¹⁵ An environmental assessment would address the costs and benefits of this project. Similarly, an environmental assessment of a project involving toxic substances would address the costs and benefits of that project. If there is some physical interaction among the projects (such as a hypothetical risk that a toxic chemical spill would cause workers to leave radioactive materials unattended) then those also would be addressed in the appropriate environmental assessment. Similarly, if it were known that a person bearing a body dose of toxic chemicals (or prescription drugs) were more sensitive to radiation, then such an effect should be accounted for. However, LAPSRS has not produced any documentation in support of such a proposition and I am not aware of any such documentation; indeed, based on my general knowledge, it is my belief that unless the effect from a particular interaction were extraordinarily large there would be little chance of measuring such an effect in a demographic study.

fantasy play might have some value; but it is not required and would be expected to have very marginal value because of the many possible scenarios for specific accidents. Hence, this concern is not reliably supported and shall be struck.

However, we shall treat the section as suggesting an area in which the Board might wish to inquire further: the need for an epidemiological study of workers. In this regard, I note, however, that it is a weak plea because it is not supported by any evidence that would make me want to inquire further. It rests entirely on an unsupported statement "about the Workers compensation cases that have been filed" without any evidence concerning the merits of any of those cases.¹⁶ LAPSR would need to provide far more reason for me to inquire further into this area of concern.

F. Concern I of Jon Scott

Although Applicant claims that this concern, relating to the adequacy of radiation monitoring equipment used by Applicant, is not in compliance with 10 C.F.R. § 2.1233(c), I disagree. That section requires that the initial written presentation of a party:

describe in detail any deficiency or omission in the license application, with references to any particular section or portion of the application considered deficient [Emphasis added.]

As Jon Scott points out in his Response at 1-2, NRC regulations require *affirmative* findings about applicant's qualifications; therefore, a license may be denied even though an application is complete and accurate. It seems to me to be clear that there is no intention to bar Intervenor from asserting reasons to deny a license merely because those reasons are not directly related to a particular section of the application.

I also find that Jon Scott is very clear in stating this concern that he is addressing alleged inadequacies in the equipment used by Rockwell, citing 10 C.F.R. § 70.23(a)(3) as his authority that there is a requirement that Rockwell's

equipment and facilities are adequate to protect health and to minimize danger to life and property.

¹⁶ It seems ironic to me that an organization of physicians is arguing that the filing of a suit indicates some form of culpability. I do not assume that this is true for malpractice suits, even when there is more than one suit against the same doctor, and I also do not assume that it is true for a laboratory that handles toxic and radioactive chemicals. The incidence of cancer is quite high in our society. That a worker would suffer a cancer is not surprising. That the same worker might think the cancer associated with his employment also is not surprising. However, until the merits of the case are examined, it is very difficult to say that a cancer was caused by the practices of an employer. First, negligence must be shown. Then causality must be shown. In this instance, the nature of the alleged negligence has not even been described in LAPSR's written filing.

In his filing, Jon Scott states in detail, with citation to sources, why he thinks the equipment and facilities are inadequate; and his statement requires a response.

It is not surprising that there is no specific section of the application that places the adequacy of equipment in the context in which Mr. Scott alleges that it should be placed.

I also note that this concern is relevant to the Intervenor's principal concern — that Rockwell's alleged sloppiness reflects on its character, allegedly making it an unsuitable licensee.

G. Concern II of Jon Scott

This concern alleges that Applicant's quality assurance program is deficient. Applicant states, at 7 of its motion, that quality assurance plans are required "only for 'plutonium processing and fuel fabrication plants.'" I have already ruled that, on the current state of the record, this application is covered by the Commission's quality assurance regulations; hence, this motion to strike shall be denied.

Applicant's failure to comply with applicable regulations could, of course, adversely affect a determination concerning its character.

I also consider the Rockwell argument to strike to be incomplete, as Rockwell apparently would have to assure the safety of its projects in the event of earthquake or brushfire under the general requirements of Part 70; *see* 10 C.F.R. §§ 70.22(a)(2), (6), (7), and (8); *see also* §§ 70.23(a)(3) and (4). Although Mr. Scott may not have cited these sections, I would not dismiss a portion of the filing of a nonlawyer such as Mr. Scott when there are relevant sections in addition to a section that he cited, believing that it applied.

H. Portions of Concern IIIA of Jon Scott

This concern alleges that Applicant has failed to take appropriate soil and water tests to detect radiation and toxic substances on the licensed premises. A portion of the concern relates to a failure to detect beryllium.

Applicant argues that since beryllium is nonradioactive that its procedures for monitoring its presence are not relevant to this license application. However, I find that the monitoring of toxic chemicals is relevant to a determination concerning Applicant's character; hence, this concern and similarly challenged portions of concerns IIIB, IVA, IVB, and V shall not be struck.¹⁷

¹⁷ However, Jon Scott has not provided any documentation for his assertion in his Response at 2, that toxic materials present on the site could be dispersed in a major fire. Hence, that assertion is struck both for its lateness and for its unreliability.

I. Concerns IVA and IVB of Jon Scott

Jon Scott's Concern IVA asserts that Applicant has failed to demonstrate the safety of its facility in the event of an earthquake; and Concern IVB asserts that Applicant's facility is located in an extreme fire hazard area. Applicant argues, contrary to my ruling in Section II, above, that it is not requesting a license for a plutonium processing and fuel fabrication plant and that it is therefore not covered by the earthquake or fire protection standards implicit in 10 C.F.R. § 70.22(f). I find that this argument is not valid and deny the motion to strike for this reason. I also consider the argument to be incomplete because the general requirements of Part 70 also would require that the possibility of earthquake or brushfire be addressed; *see* Section IV.G, above.

Rockwell also argues that its Hot Lab meets current Uniform Building Code standards. However, I will not consider that argument within the context of a motion to strike; it is proper rebuttal argument if supported by competent evidence.¹⁸ This ground to strike is found to be invalid.

J. Concern V of Jon Scott

Jon Scott alleges, as Applicant states at 9 of its motion, that "the Applicant has not adequately documented historical spills and incidents." Applicant responds that it has fully documented its entire history of spills and incidents in its submittals to me, dated September 27 and November 4, 1989.

As I read Jon Scott's concern, however, this answer is not fully responsive. Mr. Scott's evidence of incomplete reporting is based on recent findings of radioactive and hazardous materials on the site. It is his apparent concern that there was an incomplete accounting for these materials *before* the materials were found, reflecting on the accuracy of records and reports of Applicant. His concern, as I understand it, is also that it is necessary to reconcile the amounts of radioactive and hazardous material on site — after accurate assessment — with reports of releases to find out how accurately Rockwell's historical representations correspond to the amount of measured materials.¹⁹

I am not persuaded to strike Concern V of Jon Scott.

¹⁸ Jon Scott's rebuttal evidence at 5-6 of his Response is not properly submitted at this time. It may be submitted as rebuttal evidence if it meets the criterion for rebuttal evidence *after* Applicant has filed its substantive response.

¹⁹ Jon Scott says, in his Response at 8, that "Rockwell has failed to present evidence that the spills reported in my case were documented." He is looking for an accounting that starts with the spills and goes backward historically to account for the extent of the spills quantitatively.

K. Concern 1 of SCFS

Concern 1 of the Southern California Federation of Scientists (SCFS) relates to the release fraction for plutonium. One issue it raises relates to the possible dispersion of the 394 grams of plutonium that Applicant asks to be permitted to possess *in the form of contamination*²⁰ — that is, releases previously occurring on the site. Although it is difficult for me to imagine how this contamination could be released even in a worst-case accident, such as a fire, there does not seem to be any portion of the application that addresses the implications of the full 400 grams of plutonium for a worst-case accident. Therefore, this concern shall not be struck.

In addition, SCFS mentions “filter operation,” a subject covered in the *On-Site Radiological Contingency Plan* (RCP) at 3-7 to 3-8. However, the RCP assumes the loss of two-thirds of the filter capacity — not the “half” stated by SCFS — and SCFS gives no reason to believe that the assumption is not sufficiently conservative. Hence, SCFS has not provided any reliable support for its concern.

Appendices A and B, which are referenced in this concern, do not relate to it. They do not have to do with release fractions. (On the other hand, they do relate to Concern 17, which is discussed below in Section W; hence, these appendices are not struck even though they are referenced in this portion of the written filing.)

With the one exception just mentioned, SCFS Concern 1 is struck.

L. SCFS Concern 2

This concern, relating to a possible application for a new license in the future, shall be struck. Rockwell asks for a license until October 1990. What it does beyond that date is entirely within its own responsibility. While it may bargain with Intervenor concerning its intentions beyond October 1990 (*see* SCFS Concern 3), its willingness to bargain does not introduce any new issue into this proceeding.

M. SCFS Concern 3

Applicant moves to strike on the grounds of relevance. However, the concern relates to whether Applicant’s proposed activities have been described adequately in its application²¹ pursuant to the regulations. *See On-Site Radiological*

²⁰ SNM-21, Amendment No. 5, 70-25, March 9, 1990, at 1.

²¹ Section 70.22(a)(2) and (4) require, among other things, that the application include “the general plan for carrying out the activity;” and “the name, amount, and specifications (including the chemical and physical form and, where applicable, isotopic content) of the special nuclear material the applicant proposes to use”

Contingency Plan, Revised December 22, 1989, at 1-18 and 1-19 for the only description that has been filed; *see also* the entire On-Site Radiological Contingency Plan, throughout, for further information about procedures and equipment that will be used.

I find that the discussion in SCFS's written filing for Concern 3 and the three referenced appendices appear to be relevant. The difficulty is that the Appendices, which bear the mark of thoughtful preparation, are not filed in affidavit form²² and are not themselves evidence and that Sheldon C. Plotkin, Ph.D., P.E., who filed the document, has not submitted his resume in an effort to demonstrate that he is himself qualified to sponsor the statements made in the Appendix. Providing that Dr. Plotkin (or another sponsoring scientist²³) files his resume and that the subject matter is within his field of expertise, I will find that the concern is well-founded and that I need not strike it. SCFS may have up to 7 days from the date of this order to submit their resume(s) and an affidavit that specifies that information in the filing represents their expert opinion.

N. Concern 4 of SCFS

This concern is struck as irrelevant, as I previously stated in footnote 7 of my Memorandum and Order of December 7 (unpublished) and as SCFS recognizes in its Response at 5.

O. Concern 5 of SCFS

This concern is struck for lack of substantiation.²⁴ Regulations do not require that transport be "guaranteed safe from accident." They establish standards that must be met. With the exception of an undocumented, nonspecific, general reference to a newspaper article about a 1989 Pennsylvania Rockwell truck accident, there is no substance here. Hence, this entire concern shall be struck.

²² Because the deficiency here is solely one of legal technicality that relates to a passage that appears to have important safety significance, I find that it is appropriate to permit the Intervenor to take appropriate remedial action.

²³ Another scientist would also have to file an affidavit stating that he or she knows and believes that the facts in the appendices are true.

²⁴ Contrary to the argument of SCFS, at 4, there is no requirement that the motion to strike be "substantiated." All Applicant needs to do is to communicate clearly its concern about substantiation. I would not be required to become creative in order to discern what Applicant is referring to; but I am permitted to compare what Applicant says to the concern it is addressing. That Applicant need not "substantiate" its motion is particularly clear in this setting, in which I am permitted to strike concerns on my "own initiative," without any motion from Applicant. 10 C.F.R. § 2.1233(e).

P. Concern 6 of SCFS

This concern alleges inadequate measurement of radioactive materials in case of an accident. SCFS relies largely on an allegation of the California State Department of Health Services, particularly Count 13, which it quotes without providing any supporting evidence. Rockwell's response is that the particular allegation has been dropped. Given the inherent unreliability of citing an allegation that has not been proved, I accept Rockwell's representation that the charge has been dropped.²⁵ Hence, the allegation is struck.

Q. Concern 7 of SCFS

This concern relates to release of radioactive materials during accidents due to faulty equipment or operator error. As with Concern 6, I strike Count No. 13 and references to it.

R. Concern 8 of SCFS

There is no reliable support for this concern, related to an alleged failure of the application to specify "throughput limitations"; and the concern shall therefore be struck. It is my understanding, however, that Rockwell is planning to work with a maximum of 6 grams of plutonium during the entire TRUMP-S project and that there is no additional throughput. See *On-Site Radiological Contingency Plan, Revised December 22, 1989*, at 1-18 (noting that 5 grams of plutonium have been received and not mentioning any plans to receive more).

S. Concern 9 of SCFS

This concern, relating to alleged inadequate training of personnel, is unsubstantiated. If SCFS knows of relevant studies, it should have filed them; but it did not do so. This concern shall be struck.

²⁵ I am not persuaded by SCFS's argument that "there are no published records that we are aware of nor were any placed in the Local Public Document Room noting the action or detailing any reasons for dropping Count 13." Response at 6. There is, in fact, nothing in our record about the Department of Human Services allegations except what SCFS has put in the record itself. Applicant is in a position to know that the allegation, which is at best very weak evidence, has been dropped. That SCFS cannot confirm that it has been dropped does not persuade me to reject Applicant's assertion that it has been.

T. Concern 10 of SCFS

SCFS has not documented specific pages or passages on which they rely for their statement that the radiological contingency plan is inconsistent about the use of water for fire extinguishing.²⁶

SCFS may file specific citations within 7 days or its concern shall be struck. Because it is not represented by a lawyer, I am giving it special opportunities to provide appropriate footnotes; however, I would have expected a scientist to know that footnotes were appropriate and to have been sufficiently courteous both to me and to Applicant to supply adequate footnotes without being asked.

Allegations about D&D (decommissioning and decontamination) shall be struck. No reason has been given to believe that D&D will be conducted in such a way as to clog filters during TRUMP-S operations. So that allegation shall be struck.

The references to Appendices A and B are retained. The material in the appendices is relevant to my determination of whether the application is adequately complete.

U. Concern 12 of SCFS

This concern relates to source packaging prior to the shipment of plutonium to Applicant. In its motion to strike, Rockwell admits that its application does not address this question of source packaging. However, SCFS does not cite any regulatory authority for the proposition that the source packaging must be a part of this application. Furthermore, SCFS does not provide any specific documentation for its concern. Its general citation of a newspaper article without citing a relevant part or producing the article is not enough to substantiate this concern. The concern shall be struck.

V. Concern 13 of SCFS

Although Concern 13 is not artfully stated and the premises are difficult to discern, there appear to be two separate issues addressed. First, there is the possibility that liquid plutonium handled at 500°C could cause "loss of plutonium oxide by entrainment of 3 to 50 millionths of a percent of the total." (See Appendix C.) However, given the procedures being used by Applicant, there is no suggestion of what is being done by Applicant that is improper; hence, this aspect of the concern is unsubstantiated and shall be struck.

²⁶The RCP, at 2-10, states that the glovebox will be inerted but it does not say that water will not be available for fighting fires. The RCP, at 2-14, states that appropriate fire extinguishers will be available. The RCP, at 5-4, mentions the use of water by fire protection backup personnel. I see nothing inconsistent in any of this.

A second concern appears to be that there could be a vigorous fire on the site causing a release of plutonium. (See the last portion of Appendix C.) Since this possibility does not appear to be addressed in the application, it shall not be struck."²⁷

W. Concern 15 of SCFS

This concern, relating to alleged synergistic and additive effects of exposures to radiation and toxic chemical, is undocumented and is not addressed to any section of the regulations. There is, in fact, no document cited. Nor is any reason given to consider the effects of decommissioning and decontamination on the TRUMP-S project. The concern shall be struck.

X. Concern 16 of SCFS

SCFS has not documented any serious omission or misstatement in the application. Hence, this concern shall be struck.²⁸ Its concern also is redundant with other concerns discussed above; and I find, therefore, that it may also be struck for redundancy.

Y. Concern 17 of SCFS

This concern relates to the need for an environmental assessment. I note that this is largely a regulatory concern that does not relate to specific facts and should be addressed in a legal brief. If the Staff, which has not chosen to prepare an environmental assessment, would like to address this point, it is welcome to do so.

In my order of December 7, 1989, in footnote 14, I stated that Concern 17 would have to await the Staff environmental assessment. However, we now know that there will be no such assessment.²⁹ It is now entirely appropriate for Intervenors to argue that the requested license cannot properly be issued without an environmental assessment. Therefore, Applicant is incorrect in stating that "[t]his item was not admitted as a relevant concern." Appendices A and B are considered by me to be relevant to this concern.

²⁷ We accept as a concern in this proceeding SCFS's assertion that the cited study does not substantiate any release fraction less than 5%; and we therefore accept its "guess" that 5% may be released.

²⁸ The alleged failure to explain the use of plutonium rather than uranium may be relevant to the environmental assessment concerns of SCFS and others.

²⁹ Letter of December 6, 1989, from Glen Sjoblom to me; and Letter of February 14, 1990, from Charles J. Haughney to Philip D. Rutherford, Rocketdyne Division. *But see* "Safety Evaluation Report, License Amendment Application Dated December 22, 1989, Re Use of Plutonium in the Trump-S Program," Docket No. 70-25, March 9, 1990.

Z. Concerns 18, 19, and 21 of SCFS

These concerns relate to materials accountability, inadequate managerial, and administrative controls and inadequate criticality controls. All are unsubstantiated and shall be struck. The request for permission to possess 394 grams of special nuclear materials in the form of "contamination distributed in the Rockwell International Hot Laboratory"³⁰ may be interpreted as an admission that some waste may be found near that laboratory; but I do not understand it either to be an admission of the amount of waste nor of fault in depositing it there.

The statements about Rocky Flats and about "criticality" are unsubstantiated; furthermore, I made it quite plain at the prehearing conference that I do not welcome unsubstantiated allegations against any company or individual. If the "study" that allegedly cites Rockwell is worth mentioning, then it is worth citing in detail and filing the relevant portions so that I can make an independent assessment of their worth.

AA. Concern 20 of SCFS

This concern relates to the alleged inadequacy of Applicant's health physics program. Since I recognize this text as relating to the Dempsey memorandum,³¹ despite SCFS's failure to mention it by name, I do not consider it to be unsubstantiated and shall not strike it.

AB. Concern 22 of SCFS

This concern states that Rockwell has not specified the isotope(s) of plutonium to be used.³² That concern shall not be struck. However, the statement about U-238 is irrelevant to this concern and shall be struck.

AC. Concern 23 of SCFS

As Applicant points out, the specifications for a security system were filed with the Nuclear Regulatory Commission as part of the application. Furthermore, I mentioned at the prehearing conference that Intervenor might gain access to nonpublic information such as the security plan by requesting me to issue a protective order. However, that avenue was not pursued in a timely

³⁰ Letter from R.T. Lancet, Rocketdyne Division to Leland C. Rouse, U.S. Nuclear Regulatory Commission, November 2, 1989.

³¹ Memorandum from Gregg D. Dempsey, Environmental Protection Agency to Daniel M. Shane, Rockwell/Rocketdyne, concerning "Site Visit to Santa Susana Field Laboratory," July 28, 1989; Exhibit 1 to Written Filing of Jon Scott.

³² See, however, SNM-21, Amendment 5, March 9, 1990, at 1, which specifies Pu-239.

fashion for the substantiation of concerns. In addition, I note that there is no evidence of any breach of the security system. Consequently, this concern shall be struck.

AD. Concern 24 of SCFS

This concern relates to the alleged inadequacy of Applicant's radiological contingency plan. The discussion of the concern relates to the appropriateness of the release fraction from which Applicant has calculated a worst-case accident; and it also raises the argument that the release fraction should be applied to all 400 grams of special nuclear material that Applicant may possess, including 394 grams of plutonium in the form of "contamination"³³ — that is, releases of radioactive materials previously occurring on the site.

Although it is difficult for me to imagine how this contamination could be released even in a worst-case accident, such as a fire, there does not seem to be any portion of the application that addresses the implications of the full 400 grams of plutonium for a worst-case accident. Therefore, this concern shall not be struck.

A subissue revolves around the possibility of higher releases than Applicant considers because an "earthquake-induced full-scale fire" might cause a failure of all the filters. Applicant's claim with respect to filter failure is not well founded, at this time; should Applicant persuade me that the lab is designed and run so that total filter failure is extremely unlikely, then it may prevail on this issue. But the issue may not be struck at this time.

Applicant is correct in stating that a 5% release fraction for plutonium has not been directly substantiated by SCFS. However, it is appropriate to interpret this allegation in light of the argument developed by SCFS in its Appendix C. In that text, I interpret the 5% estimate as a "best guess" in the absence of any smaller fraction substantiated by a controlled study. Therefore, this allegation shall not be struck.

Applicant asks that I strike the "implicit assumption" that all releases remain airborne. This I cannot do. What I cannot see, I cannot strike. If, however, Applicant has a counter-argument in which it demonstrates that this implicit assumption has been made and that it is incorrect, I will be highly attentive to its presentation.

Applicant asks that I strike the assertion that "filters are changed 'frequently.'" That shall be done, as the assertion is undocumented. Applicant also asks that the allegations concerning requirements for recirculation of air in the hot cells should be stricken as unsubstantiated. I have reviewed that alle-

³³ *Id.*

gation carefully, comparing the SCFS filing to §§ 1.2.2.1 and 1.2.2.1.1.2 of the *On-Site Radiological Contingency Plan*, December 22, 1989. I have concluded that SCFS has failed to present essential calculations that might substantiate its finding. Unless SCFS supplements its filing by express mail within 7 days of the service date stamped on the first page of this memorandum, this section shall be struck. If the supplementation occurs, Applicant may either move to strike the supplement within 10 days or may wait to incorporate its answer in its general response.

AE. Concern 25 of SCFS

This concern, relating to allegedly poor recordkeeping and a "history of violations" is unsubstantiated. There are no source materials cited and I am not obligated to do research in order to find documents that might be relevant to this concern.

AF. Concern 26 of SCFS

This concern, relating to plans for fighting fires involving plutonium, is unsubstantiated except for the possible release of plutonium related to 394 grams of contamination. (See SCFS Concerns 1 and 24, above.) I am aware that it is unusual that an applicant would be applying for a license to possess "contamination." Nevertheless, this is a part of the activity to be performed in this license continuation request. Hence, it appears to be necessary for Applicant to demonstrate that there will not be untoward releases from this license activity.

The claim within this concern about inconsistency concerning the use of water is not accompanied by citations and is so unspecific that I consider it to be undocumented.³⁴ The allegation that "many loose ends still prevail" in Rockwell's radiological contingency plan is untimely — as I had provided a special deadline for response to the Rockwell filing — and so lacking in specificity as to be unsubstantiated; hence, it shall be struck.

AG. Concern 27 of SCFS

SCFS's concern that there will be emissions "from routine operations" is not substantiated by its claim that there may be emissions from the handling of 394 grams of special nuclear material. My understanding is that the handling of that material will be covered by a decommissioning and decontamination (D&D) procedure and shall not occur pursuant to the license conditions I am called on

³⁴ Compare this disposition to that of SCFS Concern 10, which was better documented. See p. 308, above.

to authorize. Thus, the treatment of the 394 grams of special nuclear material in D&D is not relevant to this case even though the possession of that material is covered by the license being sought. Consequently, this concern shall be struck.

AH. Concerns 28 and 30 of SCFS

These concerns, related to safety procedures for protection of workers and the public, are unsubstantiated. No source is cited. There is no basis for believing that the retirement of Mr. Lancet is a concern. Hence, these concerns as stated by SCFS shall be struck.

AI. Concern 31 of SCFS

This concern, alleging a failure to analyze accidents at other facilities, is undocumented and the text supporting the concern shall therefore be struck. It does identify an area of interest in which the Presiding Officer may subsequently be prevailed on to ask questions, providing SCFS can provide a basis for my asking questions and persuade me to reverse my decision to provisionally strike this concern. I am naturally concerned that if there have been accidents at Rocky Flats using equipment similar to that used at Santa Susana Laboratories, then Rocketdyne should have learned from the analogous experience elsewhere. However, I do not have before me any evidence that analogous events have occurred.³⁵

AJ. Concern 32 of SCFS

SCFS alleges that the facilities at SCFS are aging and may not continue to be safe. Since the application does not address this problem at all and since the burden of proof is on the Applicant, I find this allegation to be substantiated and it shall not be struck. *See* Committee to Bridge the Gap Concern 31.

AK. Concern 33 of SCFS

This concern, related to safety from earthquakes, is unsubstantiated and shall be struck. It does not provide any reason to believe that RCP § 2.1.3.4 is inadequate. *But see* Committee to Bridge the Gap Concern 32, which stands.

³⁵ Despite SCFS's assertion to the contrary in its Response at 10, there does not appear to be anything in the RCP about analogous events at Rocky Flats.

AL. Concerns of Estelle Lit and Jerome Raskin

The principal attack that Applicant makes on these filings is that they do not adequately reference specific sections of the application (or omissions from the application) or give specific reasons why the application is deficient. However, after carefully studying this filing, I find myself in disagreement, partially because I do not consider the requirement to reference sections to have established a mechanical test that would exclude concerns if the references were not physically located within each concern. I do not think any important purpose would be served by such a rigid application of this requirement; and I do not think the Commission intends to exclude important matters from a proceeding where they are expressed clearly in a concern and the sole objection is that a reference citation is found in a general section of the written filing rather than in each specific concern.

Although Lit and Raskin have stated several "concerns," on careful analysis their concerns boil down to the following rather simple statement found in the "Amendment to Intervenor's Evidentiary Filing," February 19, 1990:

Pursuant to 10 C.F.R. § 70.23(a)(3) and (4), an application can be approved if the Commission determines, among other things, that the applicant's proposed equipment, procedures and facilities are "adequate to protect health and minimize danger to life or property." The NRC regulations further provide that:

No license will be issued by the Commission to any person within the United States if the Commission finds that the issuance of such license would be inimical to the common defense and security or would constitute an unreasonable risk to the health and safety of the public. 10 C.F.R. § 70.31(d).

The regulations also require Rocketdyne to "make every reasonable effort to maintain radiation exposures, and releases of radioactive materials in effluents to unrestricted areas." 10 C.F.R. § 20.1(c).

Rocketdyne has violated these safeguards mandated by the regulations. As stated in our third and fourth concerns, Rocketdyne's past failures to control radioactive contamination coupled with their problematic monitoring procedures indicate that Rocketdyne will not change its behavior.

Additionally, 10 C.F.R. § 70.9 requires that Rocketdyne provide complete and accurate information to the Commission. As stated in our original complaint, Rocketdyne has not supplied the Commission with complete and accurate information.

It is my conclusion that this single explanation of the regulatory foundation for this complaint is adequate, as each of the "concerns" is but a prong for the overall argument that it is unsafe to license Rocketdyne because of specified past practices.

AM. Concern A.2 of Lit-Raskin

In the population data that is part of this concern, Lit and Raskin focus on page 3 of the "Environmental Restoration and Waste Management Site Specific Plan," which does not appear to be a part of the application or to be a part of the hearing file. On the other hand, my review of the "Environmental Assessment of Operations at Rocketdyne Division . . . Under Special Nuclear Materials License No. SNM-21," which is Attachment 6 to the application, particularly at 10, indicates that Rockwell estimates that 121,000 people reside within 5 miles of its site — a figure in excess of the number stated by Lit-Raskin at 12.³⁶

Furthermore, with respect to allegations of distance, there is no competent evidence cited — no maps or affidavits concerning measured mileage or citations to accepted sources. Nor is there any effort to relate population claims to an allegation that there are impermissible resulting risks or impermissible radiation exposures. I conclude, therefore, that the Lit-Raskin claim about misstatement of population figures in the application is unsubstantiated in the record of this case and shall be struck.³⁷

AN. Concern A3 of Lit-Raskin

This concern alleges that the extent of radioactive contamination already documented is not permissible. This concern is not objected to, except with respect to redundancy among Intervenor. For reasons I stated previously, this concern therefore stands. However, Lit-Raskin have not submitted for the record all the documents they have cited and they must cure that deficiency within 7 days of the date of service stamped on the first page of this document by: ascertaining that the Staff will add those documents to the hearing record, by moving for me to order the Staff to add those documents to the hearing record, or by filing the documents themselves.

AO. Concern B of Lit-Raskin

This concern relates to the implications of the recent report of the Biological Effects of Ionizing Radiation (BEIR) Committee of the National Academy of

³⁶ In their Response at 8, Lit-Raskin attempt to introduce some new citations and an exhibit to provide grounds for their concern. However, that filing is not an appropriate place to make the new arguments, which should have been filed previously. Nor do I see any way to use the City of Los Angeles 1989 Population Estimate and Housing Inventory (which finds, at p. i, an annual population rate of growth in the San Fernando Valley of 1.2% per year) to reach any conclusions about the 1989 projections used by Applicant. As a result, I am not persuaded that there is such important safety significance in these new data that I should take some discretionary action to permit late filing.

³⁷ To the extent that Lit-Raskin may be arguing that they honestly differ from Applicant (rather than arguing just that Applicants have made a misstatement) about the impact of its operations on the health of nearby recreational users or residents, there is no reference to any regulatory standards, so such concerns also are unsubstantiated.

Sciences (*Health Effects of Exposure to Low Levels of Ionizing Radiation*, 1989). The report is, of course, an important document about the health effects of radiation. Applicant is, however, correct in moving that this section be struck because it has not been substantiated by any relevant regulations of the U.S. Nuclear Regulatory Commission.³⁸

AP. Susana Knolls Homeowners Association (Homeowners)

For failure to comply with 10 C.F.R. § 2.1233(c) the Susana Knolls Homeowners Association is dismissed from this case. Applicant's motion to strike the entire brief is granted.

Although Homeowners apparently has worked hard to collect together a variety of materials that may tend in the direction in which they argue, they have not "describe[d] in detail any deficiency or omission in the license application" or "give[n] a detailed statement of reasons why any particular section or portion [of the application] is deficient or why any omission is material"

One area of Homeowners' filing does merit separate analysis: the discussion of population in the vicinity of the Santa Susana Laboratory. I find this discussion inadequate because it does not reference any regulatory standard that is being violated because of the growth in local population.³⁹ There is no link made by Homeowners between the radiation hazard from Applicant's proposed activity and the population; and that link is necessary for Homeowners to allege a violation for which a remedy might be appropriate.

I find that the remainder of the filing, other than with respect to population, is comprised of unanalyzed lists of sources and is so lacking in detail that Applicant would, if it were to respond appropriately, have to sift through the cited material and to decide in each instance what portions of the cited documents are relevant. This is an unfair burden to place on Applicant, particularly in a proceeding in which the same or very similar points have been advanced by other Intervenors and in which the substantive concerns will be addressed in a more orderly fashion by excluding these particular concerns.

In dismissing Homeowners as a party, I have not dismissed many of the questions they have addressed in their basic case. Those same questions were addressed by others who succeeded in assembling their case with greater precision and who will argue many of the same points about which Homeowners is concerned.

³⁸ Lit-Raskin probably will find my attitude "frightening," just as they found Applicant's attitude "frightening" (Response at 9). However, the biological effects of ionizing radiation have always been recognized by the Commission's regulations and there do not appear to be any new actions for Applicant to take.

³⁹ Homeowners alleges at page 3 that Applicant based its 1989 population figures on 1980 data. However, as Homeowners' own Attachment A demonstrates, these data are "projected" from the 1980 Census, which often is the best that can be done for population data in between censuses.

V. SETTLEMENT

The parties are asked to reassess their positions with respect to settlement and to consider reopening discussions. I am prepared to be available either by telephone or in person for the purpose of conferring with the parties to break deadlocks in negotiation. Complete notes of my discussions with the parties will, of course, be kept and made public pursuant to *Rockwell International Corp.* (Rocketdyne Division), ALAB-925, 30 NRC 709 (1989).

VI. ORDER

For all the foregoing reasons and upon consideration of the entire record in this matter, it is this 19th day of March 1990, ORDERED, that:

1. The following concerns are struck:

Los Angeles Physicians for Social Responsibility:

Portions of Concern 1 relating to maximum radiation doses allowed to the public or to the EPA Report of July 28, 1989 or to alleged statements of Secretary Watkins or to the extreme toxicity of plutonium;

Concern 2;

Portions of Concern 4 related to interference between TRUMP-S and decontamination and decommissioning;

portions of Concern 4 relating to cumulative effects from radioactive and chemical substances;

Concern 5;⁴⁰

Southern California Federation of Scientists:

The portion of Concern 1 relating to filter failure;

Concern 2;

Concern 4;

Concern 5;

Concern 6;

⁴⁰ The material in this concern may, however, be viewed as outlining an area in which the Intervenor wishes the Presiding Officer to inquire further.

Concern 7; but the text of this concern may be considered as outlining an area in which SCFS believes that information is needed;

Concern 8;

Concern 9;

The portion of Concern 10 dealing with decommissioning and decontamination is struck; the portion of Concern 10 dealing with the use of water for fire extinguishing is placed on probation⁴¹ pursuant to the memorandum that accompanies this Order;

The portion of Concern 13 relating to releases from handling plutonium at 500°C;

Concern 15;

Concern 16;

Concern 18;

Concern 19;

Concern 21;

The portion of Concern 22 relating to U-238;

Concern 23;

The portion of Concern 24 alleging that filters are changed frequently; the portion of Concern 24 relating to recirculation of air to the hot cell is placed on probation;

Concern 25;

Those portions of Concern 26 relating to the availability of water for use in fire fighting and to "loose ends" in the radiological contingency plan;

Concern 27;

Concern 28;

Concern 30;

⁴¹ The terms of probation for any concern that is "placed on probation" may be found in the textual portion of this memorandum; those terms are incorporated into the Order by reference.

Concern 31; however, the information in this part of the filing may be considered as raising an area in which SCFS may attempt to persuade me to ask questions;

Estelle Lit and Jerome Raskin:

Concern A.2;

Concern B;

Susana Knolls Homeowners Association:

All concerns are struck and the Association is dismissed as a party because it no longer has any concerns pending.

2. The Natural Resources Defense Council⁴² is dismissed because it has withdrawn; and Don Wallace is dismissed for failure to file his basic case.

3. Only those concerns or portions of concerns discussed in this Order are struck.

4. Any motions for reconsideration of this Order must be filed within 10 days of the date stamped on the first page as the date of service.

5. Appeals may be filed by parties that have been dismissed within 10 days of the service of this Order pursuant to 10 C.F.R. §§ 2.1205(n), 2.1253; *see* §§ 2.762, 2.763. Parties filing motions for reconsideration regarding their dismissal as parties may defer filing an appeal until after the motion for reconsideration has been determined.

Peter B. Bloch
Presiding Officer

Bethesda, Maryland

⁴²The Natural Resources Defense Council, by Notice dated March 2, 1990, withdrew as a party.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judge:

Peter B. Bloch

In the Matter of

Docket No. 70-25
(ASLBP No. 89-594-01-ML)
(Special Nuclear Material
License No. SNM-21)
(Request to Renew
to October 1990)

ROCKWELL INTERNATIONAL
CORPORATION
(Rocketdyne Division)

March 30, 1990

In response to Intervenors' motion, the presiding officer readmitted the Santa Susana Homeowners Association as a party along with two of its concerns.

PRACTICE AND PROCEDURE: SUBPART L (MOTION TO STRIKE)

Relevant newspaper articles, properly indexed and attached for reference purposes to an intervenor's basic case, generally will be sufficient grounds to withstand a motion to strike.

POPULATION GROWTH: 10 C.F.R. PART 20

A concern that population has grown in the vicinity of a facility for handling special nuclear materials will not withstand a motion to strike when it is unac-

accompanied by supported allegations that the resulting risk of radiation release will exceed 10 C.F.R. Part 20 standards for allowable radiation exposures.

ADDITIVE EFFECTS OF TOXIC AND RADIOACTIVE MATERIALS

A concern about additive effects from toxic and radioactive materials that is not part of a NEPA concern, shall be struck because there is no regulatory requirement that such alleged additive effects be considered other than in a NEPA context.

MEMORANDUM AND ORDER **(Reconsideration: Homeowners and LAPSR)**

On March 29, 1990, Santa Susana Homeowners Association (Homeowners) filed a "Motion for Reconsideration of Order Dismissing Santa Susana Homeowners Association as a Party to Proceeding" (Motion); and on March 24, the Los Angeles Physicians for Social Responsibility (LAPSR) filed a "Request to the Presiding Officer for Reinstatement of Struck Concerns of Direct Case of Physicians for Social Responsibility" (Request). This Memorandum and Order addresses both filings.

I am very grateful to Homeowners for its filing. In reviewing my Memorandum and Order of March 19, 1990, in light of Homeowners' comments, I have concluded that I erroneously failed to admit two concerns and that I therefore erroneously dismissed Homeowners as a party.¹

I. HOMEOWNERS' MOTION

A. Increased Population

Both Homeowners and LAPSR have requested reconsideration of the portions of my Order in which I found:

Homeowners concludes that there are in excess of 100,000 people living within 5 miles of the Santa Susana Laboratory; and that figure does not seem to be inconsistent with the data utilized by Applicant. (See Section AM, below, discussing an analogous concern of Lit-Raskin.) There has been no linkage made between alleged population growth and

¹ This Memorandum and Order is being issued before Applicant has had a chance to respond. Should Applicant wish to respond, its arguments would be fully considered. However, that will be the end of it. Homeowners and LAPSR, as proponents of a motion for reconsideration, may not reply to a filing that is in essence a response to their motion.

*impermissible risk of radiation exposure. Hence, this concern is unsubstantiated and shall be struck. [Emphasis added.]*²

* * *

*One area of Homeowners' filing does merit separate analysis: the discussion of population in the vicinity of the Santa Susana Laboratory. I find this discussion inadequate because it does not reference any regulatory standard that is being violated because of the growth of the local population.*³

In their motions for reconsideration, both LAPSRS and Homeowners argue persuasively that there is a clear relationship between population and exposure and radiological effects. LAPSRS correctly states that the measure of exposure to radiation is "person-rads," which is derived by multiplying dose in rads by population.

The standard for permissible radiation exposure for individuals is set in 10 C.F.R. Part 20, including § 20.101 (Radiation Dose Standard for Individuals in Restricted Areas), § 20.102 (Determination of Prior Dose), § 20.103 (Exposure of Individuals to Concentrations of Radioactive Materials in Air in Restricted Areas), § 20.104 (Exposure of Minors), § 20.105 (Permissible Levels of Radiation in Unrestricted Areas), and § 20.106 (Radioactivity in Effluents to Unrestricted Areas).

The Nuclear Regulatory Commission does not absolutely prohibit the use of radioactive materials in dense areas. Indeed, there is a power plant operating in a populous portion of Westchester County, New York. What the NRC does is to impose limits of exposure to radiation (*see* Part 20⁴). Failure to show that increased population results in violation of the Part 20 standards is a failure to state a claim for which relief can be granted. It was, therefore, an unsubstantiated claim.

I conclude that it was correct to dismiss Homeowners' discussion of population, which was unaccompanied by any computations of dose or exposure and also unaccompanied by any citation to Part 20.

B. Homeowners' Concern II

Homeowners' Concern II is:

II. Rockwell International is unfit to possess a Special Nuclear Material License.

- A. Rockwell cannot be trusted for technical competence or good faith compliance with the regulations.
- B. Rockwell violates requirements for timely disclosure of complete and accurate information and fails to make necessary surveys of radiation hazards.

²LBP-90-10, 31 NRC 293, 300 (1990).

³*Id.* at 315-16.

⁴That LAPSRS is aware of Part 20 is evidenced by its citation to that Part on page 11 of its direct case.

In its Motion, Homeowners alleged that I had been arbitrary in admitting a concern of Jon Scott that alleged an omission in the application and in denying its concern about a similar matter: Applicant's fitness to be licensed. As I reflected on this allegation, I became convinced that Homeowners was correct and that I had indeed made a mistake in my initial ruling.

It is true, as I stated in my earlier Memorandum, that Homeowners' support for its concerns is primarily "comprised of unanalyzed lists of sources."⁵ Most, but not all, of the sources that are cited are newspaper articles. And these articles are, at best, hearsay evidence whose value depends on the truth of statements reported in the news. Therefore, it would be helpful if Homeowners would have taken the trouble to analyze these articles and to determine which of the reports are particularly credible and which portions allege violations. Instead, Homeowners made its own summary of the articles without referencing particular sections to which Applicant must address an answer. It then appended articles to its motion, but without page numbers or dates or any easy way to compare the cited articles to the appended articles.

This form of record is difficult to deal with, both for the presiding officer and for the applicant who might have to respond to it. It is, after all, neither Homeowners' summary nor even the articles themselves that Applicant must deal with — but the underlying truth of the words reportedly said by the sources cited in the articles.

Despite my frustration at this form of filing, I have decided that in a Subpart L proceeding — in which discovery is not permitted — it is appropriate that these summary references to newspaper articles, by a party that is not skilled in administrative proceedings and is not represented by a lawyer, should survive a motion to strike. As 10 C.F.R. § 2.1233(e) says: "Strict rules of evidence do not apply to written submissions under this section. . . ."

However, it is also appropriate — in reversing my initial determination — to alleviate Applicant's burden in responding to this material. Hence, Homeowners must deliver to Rockwell, within 7 days,⁶ a clearly cross-referenced set of copies of newspaper articles containing numbered pages and dates of publication. (Dates are very useful in evaluating the significance of a newspaper article.) Rockwell need only respond to references that comply with the directions given in this paragraph.

I am aware that Applicant is being asked to respond to secondary sources. I am fully cognizant of the proper weight to be accorded to such sources, particularly when compared to direct evidence that Applicant may submit.

⁵ LBP-90-10, *supra*, 31 NRC at 316.

⁶ The clear cross-references and dates may be properly served in the docket promptly after having been served on Rockwell.

II. REQUEST OF LAPSR

A. Concern 1 of LAPSR

In reviewing LAPSR's Request, I have concluded that its direct case was careless in omitting citations to specific portions of fully defined reference documents that would permit the reader to know the sources on which it was relying. However, doctors who are not lawyers may be excused in our proceedings for this lapse — even though failure to use citations also would violate proper practice for medical publications. Consequently — now that I am reminded by LAPSR of the origin of their incomplete citation on page 2 of their Direct Case, I shall reverse my determination to strike material from "the EPA report of July 28, 1989." (There is no change in my decision to strike references to undocumented remarks of Secretary Watkins.)

B. Plutonium Risks

The portion of my decision for which LAPSR seeks reconsideration states:

The entire section on plutonium risks also shall be struck because it is not related to anything in the application or the regulations. There is no doubt about the extreme toxicity of plutonium. Furthermore, were this section related to the application — as, for example, the Committee to Bridge the Gap has done in its written filing at 7-11 — it would have been admissible.⁷

In its Request at 2, LAPSR argues that "[i]t is not the toxicity of plutonium which is in question but the attitude of the Applicant in not assessing the risks properly." With this statement, I am in complete agreement. However, this concern does not link the risks of plutonium to any statements by Applicant's officials or to any actions of Applicant and therefore it shall be struck.

C. Concern 2

Since LAPSR has not tied its arguments about population growth to the radiation protection standards of 10 C.F.R. Part 20, discussed above, its arguments about population remain struck.

⁷LBP-90-10, *supra*, 31 NRC at 300.

D. Concern 4

This concern about the additive effects of toxic and radioactive materials makes a general reference to 10 C.F.R. Part 20, but I do not know of any section of that Part that covers combined effects of radioactive and toxic materials. Hence, my decision to strike shall stand.⁸

E. Concern 5

I agree with LAPSR that worker health and safety are extremely important; however, LAPSR has still not provided any cognizable reason for believing that Applicant has acted improperly with respect to worker health and safety. There is, in particular, no citation to support LAPSR's statement that the onsite emergency plan must consider various levels of radiological contamination.

Consequently, Concern 5 remains struck.

ORDER

For all the foregoing reasons and upon consideration of the entire record in this matter, it is, this 30th day of March 1990, ORDERED, that:

1. Santa Susana Homeowners Association is restored to party status.
2. Santa Susana Homeowners Association Concern II shall be reinstated and shall not be struck in whole or in part.
3. Santa Susana Homeowners Association shall comply with the remedial action directed in the Memorandum. Newspaper articles that are not clearly cross-referenced or are not dated shall be struck.
4. The portion of the Los Angeles Physicians for Social Responsibility's direct case dealing with "the EPA report of July 28, 1989" shall be restored and shall not be struck.

Respectfully ORDERED,

Peter B. Bloch
Presiding Officer

Bethesda, Maryland

⁸ If an Environmental Impact Statement is prepared, it would of course have to deal with all the environmental impacts of the project, including the impacts of toxic, nonradiological chemicals. However, that is the only context in which such an analysis appears to be required; and this concern did not initially raise any questions about the need for environmental assessment or environmental impact statement.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Thomas E. Murley, Director

In the Matter of

Docket Nos. 50-250
50-251

FLORIDA POWER AND LIGHT
COMPANY
(Turkey Point Nuclear Generating
Plant, Units 3 and 4)

March 22, 1990

In this final Director's Decision, the Director of Nuclear Reactor Regulation responds to remaining issues left open by Partial Director's Decision DD-89-5, 30 NRC 73 (1989), as well as additional issues raised by Thomas J. Saporito in two subsequent Petitions. The Petitioner requested that the NRC take certain immediate actions with regard to Turkey Point Nuclear Generating Plant, Units 3 and 4, alleging as bases for his requests that there had been reprisals against employees for reporting safety concerns and a chilling effect on reporting safety concerns as a result of discrimination and harassment, that his employment had been adversely affected after engaging in protected activity as defined in 10 C.F.R. § 50.7, that the Licensee and its counsel acted improperly in connection with Petitioner's hearing before the Department of Labor, and that there had been a falsification and destruction of documents at the facility. For reasons set forth in the Petition, the Director denies the Petitioner's requests.

RULES OF PRACTICE: SHOW-CAUSE PROCEEDING

The institution of proceedings in response to a request pursuant to 10 C.F.R. § 2.206 is appropriate only when substantial health and safety issues have been raised.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

INTRODUCTION

On December 21, 1988, Thomas J. Saporito, Jr. (Petitioner) submitted a request pursuant to 10 C.F.R. § 2.206 that the Nuclear Regulatory Commission (NRC) take certain actions with regard to the Turkey Point Plant, Units 3 and 4. The request of December 21, 1988, was supplemented by five later submittals dated January 13 and 30, February 7, and April 25 and 26, 1989. These six documents were referred to the Office of Nuclear Reactor Regulation (NRR) for consideration pursuant to section 2.206. These documents will be jointly referred to herein as the "December 21, 1988 Petition." Subsequently, the Petitioner filed additional requests for action with regard to the Turkey Point facility, dated July 7 and August 12, 1989.

On July 12, 1989, a Partial Director's Decision, DD-89-5, 30 NRC 73 (1989), was issued which responded, in part, to the request for action in the December 21, 1988 Petition. This Director's Decision responds to the remaining issues from the December 21, 1988 Petition as well as the Petitions dated July 7, 1989, and August 12, 1989, which have also been referred to NRR for consideration.

As discussed in Partial Director's Decision DD-89-5, two issues identified in the December 21, 1988 Petition required further investigation by the NRC Staff. The two issues involved (1) a chilling effect on reporting safety concerns as a result of discrimination and harassment, and (2) the falsification and destruction of documents. This Petition requested that the operating licenses for Units 3 and 4 be immediately suspended and revoked and that an escalated civil penalty be imposed on Florida Power & Light Company (FPL, the Licensee) based upon these issues.

The July 7, 1989 Petition requested that the NRC take immediate actions to cause the suspension of Turkey Point operating licenses DPR-31 and DPR-41, cause the imposition of an escalated civil penalty upon the Licensee, and cause an investigation into unlawful actions of the Licensee. As a basis for these requests, the Petitioner alleged that reprisals and retaliatory measures were taken against employees at the Turkey Point facility after these employees voiced safety concerns to Licensee management.

The August 12, 1989 Petition requested that the NRC investigate the violations of NRC requirements delineated in the Petition and take immediate actions to (1) cause the suspension of operating licenses DPR-31 and DPR-41; (2) cause the imposition of an escalated civil penalty upon the Licensee; (3) cause a criminal investigation concerning the behavior and conduct of Licensee's counsel; and (4) reverse the chilling effect instilled at the Turkey Point facility resulting from the illegal Licensee conduct. In the Petition, the Petitioner states that

the Licensee has violated the NRC's regulation 10 C.F.R. § 50.7, "Employee Protection." To support this statement, the Petitioner alleges that the following activities at the Turkey Point facility have occurred:

- (1) The Petitioner's employment was adversely affected at the Turkey Point facility after engaging in protected activity embraced within the requirements and meaning of section 50.7.
- (2) The Licensee "appears to have" intimidated and coerced the Petitioner by hiring a law firm to interrogate him concerning information that he conveyed to the NRC concerning operations at Turkey Point.
- (3) The Licensee, through its counsel, "appears to have" attempted to prevent the Petitioner from "delineating" additional information to the NRC by offering the Petitioner a transfer to the St. Lucie facility owned and operated by the Licensee.
- (4) The Licensee, through its counsel, "appears to have" influenced two potential witnesses, whereby the witnesses' testimony could not be relied upon during the Petitioner's hearing before the Department of Labor (DOL).
- (5) The Licensee, through its counsel, "appears to have" intimidated and coerced a supervisor at the Turkey Point facility into attending a meeting with the Licensee's counsel in order to enable counsel to question the supervisor against his wishes concerning the scheduled hearing before the U.S. Department of Labor (DOL) in February 1989.

DISCUSSION

Previously, Petitioner had filed several complaints, beginning in October 1988, with DOL alleging that he had been subjected to harassment, discriminatory conduct, and, ultimately, dismissal by the Licensee for engaging in certain protected activity, in violation of section 210 of the Energy Reorganization Act. These complaints were investigated by DOL's Wage and Hour Division and were the subject of a hearing held before a DOL Administrative Law Judge (ALJ).

An investigation, as discussed below, was initiated by the NRC's Office of Investigation (OI) in response to a request from the NRC Regional Administrator, Region II, to resolve the allegations contained in the July 7 and August 12, 1989 Petitions as well as the two issues remaining open from the December 21, 1988 Petition. In addition to the allegations contained in these petitions, OI was also requested to investigate additional allegations concerning FPL's Turkey Point and St. Lucie nuclear plants that had been received by the NRC's Region II office.

On December 21, 1988, the NRC Regional Administrator, Region II, requested that OI conduct an investigation to resolve allegations that had been raised by the Petitioner of falsification, alteration, and destruction of plant nuclear safety-related documents at both the Turkey Point plant (December 21, 1988 Petition) and the St. Lucie plant. Subsequently, requests made by the Regional Administrator sought additional assistance to resolve allegations raised by the Petitioner that Licensee employees at Turkey Point were harassed and intimidated for reporting nuclear safety-related deficiencies and concerns (December 21, 1988 and July 7, 1989 Petitions), that some Licensee officials had created a "chilling effect" at the plant by threatening to retaliate against individuals who openly discussed or reported these issues (December 21, 1988 and August 12, 1989 Petitions), and that Licensee personnel and/or attorneys representing the Licensee interfered with DOL proceedings by threatening witnesses or offering them favorable employment opportunities if they declined to testify on his behalf (December 21, 1988 and August 12, 1989 Petitions). The Regional Administrator also requested OI to resolve additional allegations of improprieties, including allegations that the use of an independent law firm and the unethical conduct and behavior of the Licensee's counsel before and during the DOL hearing were harassing and intimidating actions that interfered with the Petitioner's participation in the DOL matter (July 7 and August 12, 1989 Petitions).

On January 22, 1990, OI completed its investigation. The results of this investigation are contained in OI Report, Case Number 2-88-012, dated January 22, 1990.¹ With one exception, all of the allegations remaining open from the December 21, 1988 Petition and those contained in the July 7 and August 12, 1989 Petitions were investigated by OI. The only allegation that was not investigated by OI was that Petitioner's employment was adversely affected after he engaged in protected activity, as this allegation was the subject of DOL's investigation.

The OI investigation concluded, based upon the large volume of testimony received from numerous interviewees and the extensive review and analysis of pertinent records, correspondence, and documents, that the allegations of employee harassment, the chilling-effect condition, and Licensee discrimination against individuals who reported or identified nuclear-safety-related concerns could not be substantiated as alleged. Additionally, there was insufficient evidence to confirm the allegations that instrumentation and control maintenance records were willfully and intentionally falsified, altered, and/or destroyed to conceal procedure violations. Finally, the investigation also concluded that no Turkey Point employee who testified for the Petitioner at the DOL hearing was

¹ A copy of the synopsis of the OI report summarizing the investigation and its findings was transmitted to the Petitioner by copy of a letter from Stewart D. Ebnetter (NRC) to J.H. Goldberg (FPL), dated March 22, 1990.

knowingly harassed or discriminated against by the Licensee for this activity, and that evidence failed to support the allegation that attorneys for the Licensee acted improperly or behaved in an unethical manner during the independent law firm investigation or the DOL matter.

Concerning the Petitioner's allegation that his employment was adversely affected after he engaged in protected activity, on June 30, 1989, the DOL ALJ issued a Recommended Decision and Order denying the Petitioner's complaint. In his decision, the ALJ held that the Petitioner failed to present a *prima facie* case that he had been discriminated against for engaging in protected activity, and that his discharge resulted solely from his own insubordination. The Petitioner has appealed this decision, and that appeal is pending before the Secretary of Labor.

Because the DOL ALJ did not substantiate the Petitioner's allegation, and because nothing in the Petition or otherwise available to me leads me to conclude that the Petitioner's allegation is valid, I have concluded that there is no basis for the requested relief. I am aware that the ALJ's decision has been appealed to the Secretary of Labor. As is the NRC Staff's practice, if the Secretary reverses or modifies the ALJ's decision, the NRC will consider whether enforcement or other action against the Licensee is appropriate.

CONCLUSION

The institution of proceedings in response to a request pursuant to 10 C.F.R. § 2.206 is appropriate only when substantial health and safety issues have been raised. See *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2 and 3), CLI-75-8, 2 NRC 173, 176 (1975), and *Washington Public Power Supply System* (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984). This is the standard that has been applied to determine whether the actions requested in the Petitions are warranted. For the reasons discussed above, no basis exists for taking the actions requested in the Petitions as no substantial health and safety issues have been raised by the Petitions. Accordingly, the Petitioner's requests for action pursuant to 10 C.F.R. § 2.206 are denied.

A copy of this Decision will be filed with the Secretary of the Commission for the Commission's review in accordance with 10 C.F.R. § 2.206(c).

FOR THE NUCLEAR
REGULATORY COMMISSION

Thomas E. Murley, Director
Office of Nuclear Reactor
Regulation

Dated at Rockville, Maryland,
this 22d day of March, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kenneth M. Carr, Chairman
Thomas M. Roberts
Kenneth C. Rogers
James R. Curtliss
Forrest J. Remick

In the Matter of

Docket No. 50-271-OLA
(Spent Fuel Pool
Amendment)

VERMONT YANKEE NUCLEAR POWER
CORPORATION

(Vermont Yankee Nuclear Power
Station)

April 5, 1990

On certification by the Appeal Board of its ruling reversing an Intervenor's environmental contention concerning a spent fuel pool accident, ALAB-919, 30 NRC 29 (1989), the Commission vacates that part of the Appeal Board's decision that amounts to a holding that an accident with a probability on the order of 10^{-4} per reactor year is remote and speculative, without prejudice to a later Commission determination on what the limits should be. The Commission directs the Appeal Board, on remand, to develop further information before a judgment is made on whether the accident at issue here is remote and speculative.

NEPA: WORST-CASE ANALYSIS

The Commission does not read the Supreme Court's decision in *Robertson v. Methow Valley Citizens Council*, 490 U.S. ____ (1989), to say that an accident can be excluded from NEPA consideration on the sole ground that it presents a "worst case."

NEPA: REMOTE AND SPECULATIVE EVENTS

What is important for purposes of NEPA consideration is the likelihood of occurrence of the accident in question. If the accident sought to be considered is sufficiently unlikely that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law.

MEMORANDUM AND ORDER

The Atomic Safety and Licensing Appeal Board has certified to the Commission its ruling that the environmental contention proffered by Intervenor New England Coalition on Nuclear Pollution and the Commonwealth of Massachusetts (jointly "Intervenors") was not admissible in the above-captioned proceeding. ALAB-919, 30 NRC 29 (1989). Intervenors' contention sought consideration in an environmental impact statement (EIS) of the increased consequences from a spent fuel pool accident greater than those previously evaluated by the NRC in its NEPA review. The accident sought to be considered consisted of a spent fuel pool cladding fire caused by a failure of spent fuel pool cooling, with the cooling failure caused in turn by combustion of hydrogen gas following a reactor accident. The Appeal Board's ruling overturned the Atomic Safety and Licensing Board's judgment that the decision in *Sierra Club v. NRC*, 862 F.2d 222 (9th Cir. 1988), required the NRC to entertain the contention. Our response to the Appeal Board's certification is set forth below.¹

We agree with the Appeal Board that the basis of its decision would not run afoul of the holding in either *Sierra Club*, or *Limerick Ecology Action v. NRC*, 869 F.2d 719 (3d Cir. 1989). Since we do not view *Sierra Club* as affecting the decision rationale in this case, and we believe that *Sierra Club* should have little or no effect on future cases, we do not address here whether *Sierra Club* should be followed by the Commission in all circuits.

The Supreme Court had made it clear that NEPA does not require consideration of an accident merely because it presents a "worst case," *Robertson v. Methow Valley Citizens Council*, 490 U.S. — (1989); see also *San Luis Obispo Mothers for Peace v. NRC*, 751 F.2d 1287 (D.C. Cir. 1984), *aff'd en banc*, 789 F.2d 26, *cert. denied*, 107 S. Ct. 330 (1986). But we do not read the Supreme Court's decision to say that an accident can be *excluded* from NEPA consideration on the *sole* ground that it presents a "worst case." What is important for purposes of NEPA consideration is the likelihood of occurrence of

¹The Commission has considered the briefs previously filed in this matter, as well as the transcript of oral argument on appeal and the letters submitted by the parties, and concluded that no additional briefing is required. Accordingly, the Commission does not grant NECNP's request for another round of briefing.

the accident in question. If the accident sought to be considered is sufficiently unlikely that it can be characterized fairly as remote and speculative, then consideration under NEPA is not required as a matter of law. The accident at issue here is essentially the same as the one addressed previously by the Appeal Board in ALAB-869, 26 NRC 13 (1987), and ALAB-876, 26 NRC 277 (1987). Although certain parts of the accident sequence — for example, the zircaloy-cladding fire — are discussed in the documents cited by Intervenors, the entire accident sequence is not. Specifically, the documents cited by Intervenors as a basis for the contention do not address how likely it would be that hydrogen combustion as a result of a reactor accident would lead to irreparable loss of spent fuel cooling. Thus, the record at this point contains no information on the likelihood or plausibility of the specific accident that is the subject of the actual contention formally filed by the Intervenors.

We note in this regard that Intervenors suggest before the Appeal Board that their contention should be broadened to include other reactor accident sequences as a cause for a major loss of spent fuel cooling water. We recognize that the documents cited by Intervenors indicate that the upper limit on the probability of such events is on the order of 2.6×10^{-4} per reactor year and that the Appeal Board in effect found probabilities of this magnitude to be so low as to be remote and speculative for NEPA purposes.

We are reluctant either to endorse or reject a holding that accidents of this probability should be considered remote and speculative, both because such a determination may be unnecessary here and because such a decision could have broader ramifications for the NRC's regulatory program that are better explored outside the scope of a particular case involving only a few parties. Therefore, to the extent that ALAB-919 amounts to a holding that an accident with a probability on the order of 10^{-4} per reactor year is remote and speculative, we vacate that part of the Appeal Board's decision without prejudice to a later Commission determination on what the limits should be. We remand to the Appeal Board for further consideration of the actual contention formally filed by the Intervenors.²

The Commission believes that on remand more information on the plausibility or probability of the reactor accident/hydrogen combustion/spent fuel pool cooling failure/cladding fire at issue here (and in ALAB-869 and ALAB-876) is needed before a judgment should be made whether the accident that is the subject of these three decisions is remote and speculative. As part of our remand we therefore direct the Appeal Board to develop such information further. We

²That contention involves a severe reactor accident that generates sufficient hydrogen to cause hydrogen ignition or detonation which, in turn, causes a loss of spent fuel cooling that leads to a spent fuel cladding fire. The broadened contention that was raised at oral argument on appeal and that was considered by the Appeal Board in ALAB-919 is, in essence, an improperly late-filed contention; it should not be considered in this remand.

leave it to the Appeal Board to decide on the procedural means to obtain this information, whether by inviting something akin to summary disposition motions or otherwise. If the Appeal Board finds that an accident probability on the order of 10^{-4} per reactor year is appropriate for the entire accident sequence postulated in this contention, the case should be returned to the Commission for further review. Otherwise, the Appeal Board should modify or confirm its judgment as to the remote and speculative nature of the accident on the basis of the accident probability derived on remand.

This matter is returned to the Appeal Board for further consideration consistent with this order.

It is so ORDERED.

For the Commission

SAMUEL J. CHILK
Secretary of the Commission

Dated at Rockville, Maryland,
this 5th day of April 1990.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kenneth M. Carr, Chairman
Thomas M. Roberts
Kenneth C. Rogers
James R. Curtliss
Forrest J. Remick

In the Matter of

Docket No. 70-25-ML
(Special Nuclear Material
License No. SNM-21)
(License Renewal)

ROCKWELL INTERNATIONAL
CORPORATION
(Rocketdyne Division)

April 13, 1990

The Commission affirms ALAB-925, 30 NRC 709 (1989), but provides comments to underscore its agreement with the Appeal Board's interpretations of three provisions of the Commission's new rules of procedure governing materials licensing adjudications. Further, the Commission recommends that a settlement judge be utilized in appropriate circumstances and expresses the view that this device is already permitted under the Commission's rules for adjudicatory proceedings.

**RULES OF PRACTICE: INFORMAL HEARINGS (TIMING OF
WRITTEN QUESTIONS)**

The submission of questions to a party by the presiding officer is appropriate only *after* a ruling has issued on the initial request for hearing and *after* the NRC Staff has made the hearing file available in accordance with 10 C.F.R. § 2.1231 and *after* parties have filed their initial written presentations in accordance with 10 C.F.R. § 2.1233(b) or (c).

RULES OF PRACTICE: SETTLEMENT OF CONTESTED PROCEEDINGS (USE OF SETTLEMENT JUDGE)

Where an administrative judge's involvement in the settlement process could be extensive (more than providing encouragement to parties or holding a conference in open session), the Commission believes that utilization of a settlement judge should be considered.

RULES OF PRACTICE: SETTLEMENT OF CONTESTED PROCEEDINGS (AUTHORITY FOR USE OF SETTLEMENT JUDGES)

The Commission believes that resort to a settlement judge may be accomplished under its present rules which encourage settlements (10 C.F.R. §§ 2.759, 2.1241), endow presiding officers with the authority to hold conferences before or during hearings for settlement (10 C.F.R. §§ 2.718(h), 2.1209(c)), and allow presiding officers to take any other action consistent with the Atomic Energy Act, the Administrative Procedure Act, and Commission rules of practice (10 C.F.R. §§ 2.718(m), 2.1209(l)).

RULES OF PRACTICE: SETTLEMENT OF CONTESTED PROCEEDINGS (USE OF SETTLEMENT JUDGE)

Utilization of the settlement judge cannot be mandatory and cannot accrue to a party's detriment. In addition, in view of the fact that a settlement judge might engage in *ex parte* discussions and form a judgment on the merits of a party's position during the course of negotiations, the settlement judge's communications and dealings with the presiding officer on the merits of issues, and the parties' positions will have to be circumscribed.

RULES OF PRACTICE: INFORMAL HEARINGS (WRITTEN ORDERS)

A party will hardly be in a position to appeal the grant or denial of a hearing request unless the presiding officer has issued a written decision explaining how the demands of § 2.1205(g) have or have not been met.

MEMORANDUM AND ORDER

The Commission has determined not to disturb the Atomic Safety and Licensing Appeal Board's Memorandum and Order of December 21, 1989, in this

case, ALAB-925, 30 NRC 709 (1989). However, to underscore our agreement with the Appeal Board's interpretations of three provisions of the Commission's new rules of procedure governing the conduct of informal adjudicatory hearings in materials licensing proceedings, we provide the following comments. *See* 54 Fed. Reg. 8269 (1989) (codified as 10 C.F.R. Part 2, Subpart L, §§ 2.1201 *et seq.*).

1. While the Subpart L rules do not permit discovery, *see* 10 C.F.R. § 2.1231(d), the presiding officer is provided the authority to submit written questions to the parties which must be answered in writing under oath or affirmation and supported by appropriate evidence. 10 C.F.R. § 2.1233(a). In this proceeding the Appeal Board became concerned that the timing of the Presiding Officer's exercise of this authority was not consistent with the procedural scheme. As the Appeal Board explained:

The opportunity afforded a presiding officer to present the parties, including the applicant, with written questions clearly was intended as a means to clarify his or her understanding of any matter that a party has properly put into controversy through its written presentations, but which is still not amenable to resolution on the existing record. It was not intended as a vehicle to aid an intervenor, prohibited by the rules from engaging in discovery, in preparing the written presentation in which it bears the responsibility for adding the factual meat to the bare bones of any previously unsubstantiated concerns.

ALAB-925, 30 NRC at 718 (footnote omitted). We agree. This means, at minimum, that the submission of questions to a party by the presiding officer is appropriate only *after* a ruling has issued on the initial request(s) for hearing and *after* the NRC Staff has made the hearing file available in accordance with 10 C.F.R. § 2.1231 and *after* parties have filed their initial written presentations in accordance with 10 C.F.R. § 2.1233(b) or (c). *See* ALAB-925, 30 NRC at 717. If the presiding officer then determines that follow-up written questions are necessary to create an adequate record for decision, it is within the presiding officer's discretion to pose such questions. *See* 10 C.F.R. § 2.1233(a), (d); *see also* ALAB-925, 30 NRC at 716.*

2. The Subpart L rules encourage the fair and reasonable settlement of proceedings and provide the presiding officer with authority to hold conferences for this purpose. *See* 10 C.F.R. §§ 2.1241, 2.1209(c). The Appeal Board became concerned that the Presiding Officer in this proceeding intended to hold such conferences in private. The Appeal Board noted that

traditionally all conferences or meetings in connection with the agency's formal adjudications, held under the auspices and in the presence of an NRC licensing board or presiding

*The Subpart L rules provide a mechanism for bringing to the Commission's attention any "serious safety, environmental, or common defense and security matter" which has not been properly placed in contest by a party. 10 C.F.R. § 2.1251(d).

officer, have been open to the public, unless matters of national or plant security or classified, privileged, or proprietary information are involved. *See, e.g.*, 10 C.F.R. Part 2, App. A, § II(d).

ALAB-925, 30 NRC at 721. The Board expressed doubt that the Subpart L rules provided the presiding officer greater discretion to hold nonpublic meetings with the parties than is provided for formal adjudications under Subpart G. *Id.* The Board directed the Presiding Officer in this proceeding “not [to be] a participant in any private and confidential negotiations between the parties, and, conversely, that any [settlement] conferences in his presence are [to be] open to the public, absent compelling circumstances.” *Id.* We generally agree with the Appeal Board’s directive.

Commission policy strongly favors settlement of adjudicatory proceedings. At the same time, we are aware of the potential for compromise of a presiding officer’s role as an impartial adjudicator through involvement in the settlement process discussed in the Appeal Board’s Memorandum and Order. *Id.* at 721 n.13. Where an administrative judge’s involvement in the settlement process could be extensive (more than providing encouragement to parties or holding a conference in open session), we believe that utilization of a settlement judge should be considered. Use of settlement judges has been endorsed by the Administrative Conference of the United States:

The settlement judge can command a degree of deference similar to that of the presiding judge without the need to observe all of the commands that establish and maintain impartiality. A separate settlement judge, once appointed, can engage in *ex parte* and off-the-record conversations, frank assessments of the merits, and other techniques to aid settlement that the presiding judge is less free to use.

1 C.F.R. § 305.88-5.

We believe that resort to a settlement judge may be accomplished under our present rules which encourage settlements (10 C.F.R. §§ 2.759, 2.1241), endow presiding officers with the authority to hold conferences before or during hearings for settlement (10 C.F.R. §§ 2.718(h), 2.1209(c)) and allow presiding officers to take any other action consistent with the Atomic Energy Act, the Administrative Procedure Act, and our rules of practice (10 C.F.R. §§ 2.718(m), 2.1209(l)). Accordingly, it is our view that the presiding officer could, at the request of the parties, ask that the Chairman of the Atomic Safety and Licensing Board Panel appoint a settlement judge if he considered it advantageous to do so. We are mindful, of course, that any party’s participation in the settlement process is voluntary. Therefore, utilization of the settlement judge cannot be mandatory and cannot accrue to a party’s detriment. In addition, in view of the fact that a settlement judge might engage in *ex parte* discussions and form a judgment on the merits of a party’s position during the course of negotiations,

the settlement judge's communications and dealings with the presiding officer on the merits of issues and the parties' positions will have to be circumscribed. With these caveats, however, we believe that the settlement judge concept could serve a useful purpose in our proceedings.

3. The Subpart L rules contemplate that a request for hearing filed by a person other than the applicant will describe in detail the factors enumerated at 10 C.F.R. § 2.1205(d). *See* 54 Fed. Reg. 8272. The Commission specified in 10 C.F.R. § 2.1205(g) the determinations the presiding officer must make in ruling on a request for hearing by a person other than the applicant: whether the specified areas of concern are germane to the subject matter of the proceeding; whether the hearing request is timely; and whether the requestor meets the judicial standards for standing. In this proceeding the Presiding Officer did not commit his oral grant of the initial hearing requests to writing. The Appeal Board observed that the § 2.1205(g) determinations "are not readily amenable to oral ruling" and concluded that "for the sake of a complete record, a written order on a ruling as important as the granting of requests for a hearing is a necessary and not unduly burdensome formality." ALAB-925, 30 NRC at 722.

We agree. Either the denial or the grant of a request for hearing or a petition for leave to intervene is appealable within 10 days of service of the order denying or granting the hearing request/petition. 10 C.F.R. § 2.1205(n). A party appealing such an order must file a "statement that succinctly sets out, with supporting argument, the errors alleged." *Id.* A party will hardly be in a position to do this unless the presiding officer has issued a written decision explaining how the demands of § 2.1205(g) have or have not been met.

It is so ORDERED.

For the Commission*

SAMUEL J. CHILK
Secretary of the Commission

Dated at Rockville, Maryland,
this 13th day of April 1990.

*Commissioner Roberts was not present for the affirmation of this Order; if he had been present he would have approved it.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Alan S. Rosenthal, Chairman
Thomas S. Moore
Howard A. Wilber

In the Matter of

Docket Nos. 50-443-OL-1
50-444-OL-1
(Rosemount Transmitters)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

April 2, 1990

The Appeal Board refers intervenors' motion to reopen the record and admit late-filed contentions regarding the defective Rosemount transmitters to the Commission.

APPEAL BOARD(S): ACTION ON NEW MATTERS

Where finality has attached to some but not all issues, an appeal board will entertain new matters only if there is a "reasonable nexus" between those matters and the issues remaining before the board. *Virginia Electric and Power Co.* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-551, 9 NRC 704, 707 (1979). A "reasonable nexus" does not mean a "total identity or commonality of issues" but, rather, has reference simply to "a rational and direct link." *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-797, 21 NRC 6, 8 (1985); *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Unit No. 2), ALAB-579, 11 NRC 223, 226 (1980).

APPEAL BOARD(S): ACTION ON NEW MATTERS

The fact that an Appeal Board properly has before it issues concerning emergency planning does not justify its consideration of newly raised issues concerning the possible failure of transmitters.

RULES OF PRACTICE: REOPENING OF RECORD; CONTENTIONS (NEW INFORMATION)

The Commission's regulations confer a fundamental right to seek a reopening of the record on any issue germane to the outcome of the proceeding so long as (1) the proceeding is not yet complete, and (2) the reopening standards as set forth in 10 C.F.R. § 2.734 have been met. *See* 10 C.F.R. § 2.734; 51 Fed. Reg. 19,535 (1986).

APPEAL BOARD(S): ACTION ON NEW MATTERS

The "reasonable nexus" test does not preclude an intervenor from advancing a new contention arising from recent developments of safety significance. Rather, the function of the test is to ascertain the appropriate forum to entertain *ab initio* a party's claim that the requirements of 10 C.F.R. § 2.734 for the reopening of a record have been satisfied.

APPEAL BOARD(S): ACTION ON NEW MATTERS

The determination as to whether a "reasonable nexus" exists is not strictly speaking a matter of an appeal board's authority to act on a particular motion to reopen a record to introduce a new contention. It is, instead, a matter akin to venue — the inquiry being where, given the subject of the contention and the then status of the proceeding, the motion is best considered initially.

APPEAL BOARD(S): ACTION ON NEW MATTERS

LICENSING BOARD(S): ACTION ON NEW MATTERS

Where neither the Licensing Board nor the Appeal Board currently is considering issues with a "rational and direct link" to the substance of a new contention that might serve as the basis for reopening a record, the Commission is the appropriate adjudicatory body to rule on such a motion.

APPEARANCES

Diane Curran, Washington, D.C., for the intervenors New England Coalition on Nuclear Pollution, *et al.*

Thomas G. Dignan, Jr., George H. Lewald, Kathryn A. Selleck, and Jeffrey P. Trout, Boston, Massachusetts, for the applicants Public Service Company of New Hampshire, *et al.*

Charles A. Barth for the Nuclear Regulatory Commission Staff.

MEMORANDUM AND ORDER

Before us in this operating license proceeding involving the Seabrook nuclear facility is the February 27, 1990, Intervenor's Motion to Reopen the Record and Admit Late-Filed Contention Regarding Defective Rosemount Transmitters. The motion is opposed by the applicants and the NRC staff on the ground that, *inter alia*, we lack jurisdiction to entertain it on the merits. We disagree with that proposition but further conclude that the motion should be referred to the Commission for such action as it deems appropriate.

1. By their reopening motion, the intervenors would inject into the proceeding at this late date the following contention:

Applicants do not satisfy the Commission's standards for domestic licensing of production and utilization facilities because Applicants have not taken adequate measures to assure that Rosemount Transmitters will not cause, contribute to, or fail to operate during, an accident at Seabrook Station. 10 CFR § 50.34(b); § 50.34(f)(3); § 50.36(c)(3); § 50.49; § 50.55a(h); § 50.57; § 50.71(e); Part 50 Appendix A, General Design Criteria 13, 20 and 21; and Appendix B II, VII, X, XI, XIV, XV and XVI.

According to the motion, the transmitters in question are used to measure pressure and differential pressure in nuclear power plant safety systems. The motion further recites that a recent NRC issuance both confirmed that a previously reported failure of certain models was caused by a loss of fill-oil from the transmitter's sealed sensing module, and indicated that there had been more failure instances than those already on record.

In short, the intervenors seek to raise a new issue directed to the safety of plant operation. But no Appeal Board still has any issues of that stripe under merits consideration in connection with any pending appeal. To the contrary, the last such issue coming to us on the merits — concerned with the environmental qualification of coaxial cable used for data transmission in Seabrook's computer

system and certain other purposes — received our final word over a year ago.¹ All issues that remain for our disposition on the merits pertain to the adequacy of emergency response planning for areas within the Seabrook plume exposure pathway emergency planning zone.²

In these circumstances, intervenors are confronted with the well-settled principle, enunciated over a decade ago in the *North Anna* proceeding, that, where “finality has attached to some but not all issues, appeal board jurisdiction to entertain new matters is dependent upon the existence of a ‘reasonable nexus’ between those matters and the issues remaining before the board.”³ To be sure, “reasonable nexus” does not mean a “total identity or commonality of issues” but, rather, has reference simply to “a rational and direct link.”⁴ Manifestly, however, there is no tie whatever between one or more of the emergency planning issues still awaiting appeal board action and any questions associated with the possible failure of the Rosemount transmitters.

2. In a supplemental filing solicited by us, the intervenors acknowledge that their motion does not satisfy the “reasonable nexus” test. We are told, however, that our decisions invoking that test should be reconsidered. On that score, the intervenors maintain that application of the test would “unfairly deprive” the Commission’s Rule of Practice concerned with the reopening of closed records⁵ “of any meaningful utility where intervenors discover new information relevant to the safety of full power operation.”⁶

There might well be merit to that concern if the necessary consequence of the failure to satisfy the “reasonable nexus” test were that *no* tribunal within the Commission is free to consider a reopening request in an adjudicatory context. But such is not the effect of our conclusion that the test has not been met here.

The Commission’s regulations appear to confer a fundamental right to seek a reopening of the record of an adjudicatory proceeding on any issue germane to the outcome of the proceeding so long as the final curtain on the proceeding

¹ See ALAB-909, 29 NRC 1 (1989).

² There is pending an appeal by these intervenors from the Licensing Board’s denial of a motion to reopen the record to permit the litigation of contentions growing out of low-power testing at Seabrook. See LBP-89-28, 30 NRC 271 (1989). Although those contentions assertedly bear upon the conduct of full-power operation, unless and until admitted to the proceeding they do not give rise to a safety matter in controversy.

³ *Virginia Electric and Power Co.* (North Anna Nuclear Power Station, Units 1 and 2), ALAB-551, 9 NRC 704, 707 (1979).

⁴ *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-797, 21 NRC 6, 8 (1985); *Florida Power and Light Co.* (St. Lucie Nuclear Power Plant, Unit No. 2), ALAB-579, 11 NRC 223, 226 (1980). *Accord Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-901, 28 NRC 302, 306, review declined, CLI-88-11, 28 NRC 603 (1988).

⁵ 10 C.F.R. §2.734.

⁶ Intervenors’ Supplemental Motion Addressing Appeal Board’s Jurisdiction (March 7, 1990) at 3.

has not fallen.⁷ For its part, the “reasonable nexus” test does not, as it cannot, affect that right; i.e., it does not preclude an intervenor from advancing a new contention said to arise from recent developments of safety significance.⁸ Rather, the function of that test here is merely to ascertain the appropriate forum to entertain *ab initio* the intervenors’ claim that they have satisfied the 10 C.F.R. § 2.734 reopening requirements insofar as the Rosemount transmitter matter is concerned.⁹

In short, despite our use of the term “jurisdiction” in connection with the formulation of the “reasonable nexus” test in *North Anna* and its progeny, strictly speaking it is not a matter of our *authority* (i.e., power) to act on a particular motion to reopen a record to introduce a new contention. It is, instead, a matter akin to venue — the inquiry being where, given the subject of the contention and the then status of the proceeding, the motion is best considered initially.

The reasons that undergird our conclusion that, in the present circumstances, we should not initially address this motion are equally applicable to the Licensing Board: it likewise has no issue on its platter having the requisite “rational and direct link” to the substance of the intervenors’ new contention. That leaves the Commission itself.

It is true that, in common with its adjudicatory boards, the Commission has already dispatched the last of the issues pertaining to the safety of plant operation that had been placed in controversy. Nonetheless, it is the tribunal that has had the most recent contact with safety issues (on review of our decision concerned with the environmental qualification of the coaxial cable). Moreover, it is reasonable to assume that the Commission, in its role as the ultimate overseer of this extended proceeding, is interested in how the motion is handled. For example, it might decide the motion itself and, if granted, then call upon the

⁷ See 10 C.F.R. § 2.734 and Commission statement accompanying the promulgation of that section, 51 Fed. Reg. 19,535 (1986). See also *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 (1973), cited by the Commission in concluding (51 Fed. Reg. at 19,536) that it should not impose an “arbitrary cutoff point” on reopening motions.

As a general matter, in order to obtain such relief, the litigant must meet the reopening standards set forth in section 2.734. See *infra* note 9.

⁸ Nor can that right be curtailed because, for reasons of administrative convenience and efficiency, this proceeding was divided into two segments: one part covering the safety and onsite emergency planning issues, the other part encompassing offsite emergency planning issues. Such a separation, and the assignment of differently constituted licensing boards to the two parts, does not alter the fact that there is but one proceeding that has not as yet been completed.

⁹ That section provides (in subsection (a)) that a motion to reopen a closed record will not be granted unless the following criteria are satisfied:

- (1) The motion must be timely, except that an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented.
- (2) The motion must address a significant safety or environmental issue.
- (3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

In addition, if (as here) the purpose of the motion is to put an entirely new contention into litigation, subsection (d) obliges the movant to satisfy the requirements for nontimely contentions set forth in 10 C.F.R. § 2.714(a)(1).

Licensing Board to address the merits of the contention upon reopening of the record. Alternatively, the Commission might direct the Licensing Board or this Board to act on the motion in the first instance. No matter which course the Commission chooses to adopt, the intervenors will have had their opportunity to demonstrate that there is sufficient warrant for reopening under the section 2.734 standards. That is all to which they are entitled.

For the foregoing reasons, the intervenors' February 27, 1990, motion to reopen the record is *referred* to the Commission.¹⁰

It is so ORDERED.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

Mr. Moore, dissenting:

I disagree with my colleagues' decision to refer the intervenors' reopening motion to the Commission. Although I fully agree with the majority's disavowal of the fallacious notion contained in several Appeal Board opinions that we lack jurisdiction to entertain reopening motions in the circumstances presented, I must disagree with the majority's labeling exercise designed to reach the same erroneous result. I have spelled out previously why the notion that we lack jurisdiction in similar circumstances is patently wrong, so I will not waste ink repeating that discussion here. See *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-782, 20 NRC 838, 842a-42h (1984) (Moore, dissenting). See also *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 n.12 (1973); *id.*, ALAB-124, 6 AEC 358 (1973). It suffices to note that when the intervenors filed their reopening motion, we had pending, *inter alia*, their appeal from the Licensing Board's decision authorizing a full-power operating license for the Seabrook facility. Thus, the motion was filed properly with us. If we have jurisdiction to entertain the motion as the majority now correctly concedes, then we should decide it and not eschew the task of deciding whether the reopening motion meets the criteria of 10 C.F.R. § 2.734. We should not, as the majority

¹⁰ We have been advised by the intervenors that they served copies of the motion on the Commission on February 28.

does here, repackage the identical erroneous jurisdictional test and its mistaken decisional roots under a new label that also has no basis in the regulations.

Because I am in the minority on the referral question, my determination of whether the intervenors' motion meets the standards of section 2.734 for reopening the record would be an academic exercise. Accordingly, I will not undertake the task.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

Christine N. Kohl, Chairman
Alan S. Rosenthal
Dr. W. Reed Johnson

In the Matter of

Docket Nos. 030-05980

030-05981

030-05982

030-08335

030-08444

SAFETY LIGHT CORPORATION, *et al.*
(Bloomsburg Site Decontamination)

April 23, 1990

The Appeal Board grants directed certification of (1) the Licensing Board's denial in LBP-90-7, 31 NRC 116 (1990), of a motion to dismiss for lack of jurisdiction and (2) a companion ruling in LBP-90-8, 31 NRC 143 (1990), that lifted a previously entered stay of a staff order requiring immediate payments into a trust fund for cleanup of a site. The Appeal Board affirms both decisions while adding a modification concerning payment provisions.

**RULES OF PRACTICE: INTERLOCUTORY APPEALS
(DISCRETIONARY REVIEW)**

A request for certification brought by a party does not invoke appeal board jurisdiction as a matter of right but rather seeks only the exercise of a discretionary power. *See* 10 C.F.R. § 2.718(i); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-271, 1 NRC 478, 482-83 (1975).

ATOMIC ENERGY ACT: INALIENABILITY OF LICENSES

Section 183 of the Atomic Energy Act proscribes the assignment or transfer of a license or any right under that license "in violation of the provisions of [the Act]." 42 U.S.C. § 2233(c).

RULES OF PRACTICE: STAY OF AGENCY ACTION

The Commission's Rules of Practice require that the following factors be considered in deciding whether stay relief is appropriate: (1) whether the moving party has made a strong showing that it is likely to prevail on the merits, (2) whether the party will be irreparably injured unless a stay is granted, (3) whether the granting of a stay would harm other parties, and (4) where the public interest lies. 10 C.F.R. § 2.788(e). See *Virginia Petroleum Jobbers Ass'n v. Federal Power Commission*, 259 F.2d 921, 925 (D.C. Cir. 1958).

RULES OF PRACTICE: INTERLOCUTORY APPEALS (DISCRETIONARY REVIEW)

An appeal board will undertake discretionary interlocutory review "only where the ruling below either (1) threaten[s] the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, [can]not be alleviated by a later appeal or (2) affect[s] the basic structure of the proceeding in a pervasive or unusual manner." *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).

RULES OF PRACTICE: INTERLOCUTORY APPEALS (DISCRETIONARY REVIEW)

While an appeal board will take into account an agreement of the parties that interlocutory review is appropriate, it will decide itself whether there is sufficient cause for the exercise of its discretionary authority to review an interlocutory order.

RULES OF PRACTICE: INTERLOCUTORY APPEALS (DISCRETIONARY REVIEW)

LICENSING BOARD(S): JURISDICTION

A licensing board's view of its own jurisdictional boundaries over a contention in some circumstances can affect the basic structure of the proceeding,

making interlocutory review appropriate. See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-916, 29 NRC 434, 437 (1989).

RULES OF PRACTICE: INTERLOCUTORY APPEALS (DISCRETIONARY REVIEW)

A jurisdictional ruling that determines the status of a party in an enforcement proceeding heavily influences the shape of the proceeding and accordingly is properly the subject of interlocutory review.

RULES OF PRACTICE: INTERLOCUTORY REVIEW

If a licensing board has previously denied a party's motion for a *pendente lite* stay, the party may be able to obtain review of such ruling as a matter of right by renewing its stay request before an appeal board. See, e.g., *Toledo Edison Co.* (Davis-Besse Nuclear Power Station, Units 1, 2 & 3), ALAB-364, 5 NRC 35, 36 (1977).

RULES OF PRACTICE: INTERLOCUTORY REVIEW; STAY OF AGENCY ACTION

Although 10 C.F.R. § 2.788 by its terms applies only to stays of the effectiveness of a decision or action of a licensing or appeal board pending the filing and disposition of an appeal from such decision, a licensing board presiding over the hearing on an NRC staff administrative enforcement order is empowered to consider whether such an order should be effective during the pendency of the proceeding. See 10 C.F.R. § 2.718(m) (licensing board may take any action consistent with the Atomic Energy Act, the Rules of Practice, and the Administrative Procedure Act).

RULES OF PRACTICE: INTERLOCUTORY APPEALS (DISCRETIONARY REVIEW)

Upon an appeal board's determination that an interlocutory order is reviewable, a supplemental order closely connected with the first order may also be the subject of such review.

ATOMIC ENERGY ACT: INALIENABILITY OF LICENSES; BYPRODUCT MATERIAL LICENSES

Section 184 of the Atomic Energy Act, 42 U.S.C. § 2234, which prohibits the transfer, assignment, or disposal of licenses, “directly or indirectly, through transfer of control of any license to any person” without NRC’s consent, is applicable to byproduct material licenses issued under section 81 of the Act and 10 C.F.R. Part 30. *See* 42 U.S.C. § 2111; 10 C.F.R. § 30.34(b).

ATOMIC ENERGY ACT: INTERPRETATION; INALIENABILITY OF LICENSES

The principle of corporate law that a transfer of stock is not a transfer of corporate assets is inapplicable for the purposes of determining whether there has been a “transfer of control of any license” under the terms of section 184 of the Atomic Energy Act.

ATOMIC ENERGY ACT: INTERPRETATION

In interpreting the Atomic Energy Act, the plain meaning and a practical application of the terms of the statute control, particularly in the absence of legislative history to the contrary.

ATOMIC ENERGY ACT: CONTROL OF LICENSES; INALIENABILITY OF LICENSES

A shareholder is deemed to have control of a corporation, “when she [or he] determines corporate policy, whether by personally assuming management responsibility or by selecting management personnel.” *In re N&D Properties, Inc.*, 799 F.2d 726, 732 (11th Cir. 1986).

ATOMIC ENERGY ACT: CONTROL OF LICENSES

The control of a license is in the hands of the person or persons who have the ultimate right to decide how the licensed activities should be conducted.

ATOMIC ENERGY ACT: INALIENABILITY OF LICENSES

A parent corporation’s sale of 100% of the stock of its NRC-licensed subsidiary constitutes a “transfer of control of any license” for the purposes of section 184 of the Atomic Energy Act.

ATOMIC ENERGY ACT: CONTROL OF LICENSES

“Control” of a license within the meaning of section 184 of the Atomic Energy Act is found in the person or persons who, because of ownership or authority explicitly delegated by the owners, possess the power to determine corporate policy and thus the direction of the activities under the license.

ATOMIC ENERGY ACT: CONTROL OF LICENSES; INALIENABILITY OF LICENSES

The extent to which a subsidiary’s day-to-day operations are actually supervised by the parent is irrelevant to determining whether there has been a “transfer of control” of a license for the purposes of section 184 of the Atomic Energy Act.

ATOMIC ENERGY ACT: CONTROL OF LICENSES; INALIENABILITY OF LICENSES

The failure of a licensee to notify the Commission of the sale of 100% of its stock constitutes an unauthorized transfer of control under section 184 of the Atomic Energy Act.

NUCLEAR REGULATORY COMMISSION: AUTHORITY LICENSEES: CORPORATE FORM (PARENTS AND SUBSIDIARIES)

“Where the statutory purpose could be easily frustrated through the use of separate corporate entities a regulatory commission is entitled to look through corporate entities and treat the separate entities as one for purposes of regulation.” *Capital Telephone Co. v. FCC*, 498 F.2d 734, 738 n.10 (D.C. Cir. 1974).

RULES OF PRACTICE: INTERPRETATION (10 C.F.R. § 2.730(c))

A licensing board has not failed to provide an opportunity to respond as required by 10 C.F.R. § 2.730(c), where it simply reassessed *sua sponte* the previous filings of both parties as the result of a request to provide reasons for a previous, unexplained ruling.

APPEARANCES

Gerald Charnoff, Washington, D.C. (with whom Howard K. Shapar and Christine M. Nicolaides, Washington, D.C., were on the motions), for the movants, USR Industries, Inc., *et al.*

Robert M. Weisman for the Nuclear Regulatory Commission Staff.

MEMORANDUM AND ORDER

This is an enforcement proceeding instituted by the NRC staff with regard to the decontamination of a site in Bloomsburg, Pennsylvania, on which activities had been conducted under byproduct material licenses initially issued by the Atomic Energy Commission (AEC) pursuant to 10 C.F.R. Part 30 and later renewed by this Commission. Before us at this time are two motions seeking interlocutory review, by way of directed certification,¹ of certain threshold orders of the Licensing Board. The movants (collectively referred to by that Board as the "USR Companies") are USR Industries, Inc. (USR Industries), and four of its subsidiaries: USR Lighting, Inc.; USR Chemical Products, Inc.; USR Metals, Inc.; and U.S. Natural Resources, Inc. In the first motion, they challenge the Licensing Board's rejection in a January 29, 1990, order of their claim that the Commission lacks jurisdiction over them and that, therefore, they should be dismissed from the proceeding.² The second, or "supplemental," motion would have us examine as well the underpinnings of a February 8, 1990, order in which the Board modified a stay *pendente lite* that it had previously issued with regard to enforcement actions taken by the staff.³

Prior to coming to grips with the merits of the Licensing Board's orders, we must decide whether there is warrant for reviewing those orders at this interlocutory stage. For the reasons set forth in Part II of this opinion, we answer that question in the affirmative. In Part III we consider the USR Companies' claims of error against the factual background set forth in Part I, and we affirm the January 29 order to the extent that it concludes that the staff has enforcement jurisdiction over USR Industries. We leave open the question whether that jurisdiction extends as well to the assets of other USR Companies. For its part, the February 8 order is modified.

¹ See 10 C.F.R. § 2.718(i); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-271, 1 NRC 478, 482-83 (1975).

² See LBP-90-7, 31 NRC 116.

³ See LBP-90-8, 31 NRC 143.

I.

A. The controversy at hand had its genesis in March 1956 when, acting pursuant to section 81 of the Atomic Energy Act of 1954, as amended,⁴ and in accordance with 10 C.F.R. Part 30, the AEC issued Byproduct Material License No. 37-30-1 to the United States Radium Corporation (U.S. Radium). Three months later this license was replaced with Byproduct Material License No. 37-30-2 (License No. 2). Over the years, there have been more than 40 amendments to License No. 2 and, in addition, U.S. Radium received still other byproduct material licenses.

License No. 2, as well as the additional licenses obtained by U.S. Radium, included a standard provision subjecting the licenses to "the conditions specified in section 183 of the Atomic Energy Act of 1954," as well as "all applicable rules, regulations, and orders of the . . . Commission now or hereafter in effect and to any conditions specified [in the license]." Among the conditions set forth in section 183 is a proscription against the assignment or transfer of a license or any right under that license "in violation of the provisions of [the Atomic Energy Act]."⁵ A condition in License No. 2 specified the Bloomsburg site as "the authorized place of use" and directed that the materials covered by the license were "to be used by, or under the supervision of, individuals approved by the radioisotope committee."⁶

The subsequent amendments to License No. 2 worked changes in the condition concerned with the personnel who would be permitted to use or sell the byproduct material. On this score, certain of the amendments identified by name the chairman of the radioisotope committee that was to approve the employees authorized to use or to supervise the use of the material.⁷ Other amendments referred by name to the employees so authorized, without identifying the positions they held.⁸ Moreover, some amendments listed salesmen who were authorized to use "sealed sources . . . for demonstration purposes."⁹

Insofar as the other licenses issued to U.S. Radium are concerned, some of them contained personnel conditions (in their original or amended form) akin to those in License No. 2.¹⁰ Others, however, imposed no restrictions whatever in that regard.¹¹

⁴ 42 U.S.C. § 2111.

⁵ 42 U.S.C. § 2233(c).

⁶ License No. 37-30-2 (June 20, 1956) at 1.

⁷ See, e.g., Amendment Nos. 14, 16, 24, 29, and 33.

⁸ See, e.g., Amendment Nos. 36, 38, 40, and 41.

⁹ Amendment Nos. 4, 8-10, 12-14, 16, 18-19, 22, 24, and 26.

¹⁰ See, e.g., License No. 37-00030-08 (August 5, 1969) and Amendment Nos. 1, 2, 5, 6, 8, and 10 thereto.

¹¹ See, e.g., License No. 37-00030-09G (January 4, 1972); License No. GL 122 (May 16, 1962), superseded by License No. 37-00030-10G (October 27, 1969), which in turn was replaced by License No. 29-13537-02G (January 6, 1970).

U.S. Radium was incorporated in 1917 and, until 1980, was

managed and operated on a highly centralized, divisional basis. The divisions . . . [were]: the chemical products division, . . . the lighting products division, . . . and the metal products division. . . . The Corporation also manufacture[d] safety lighting products and tritiated foils and targets (the "safety lighting products business", which is operated together with the metal products division and which is the only one of the Corporation's businesses which is licensed and regulated) . . .¹²

In 1980, the corporation was significantly restructured. The effect of this development was that an entirely new corporation, USR Industries, assumed the role of "parent" of its creator, U.S. Radium. Specifically,¹³ when USR Industries was incorporated by U.S. Radium on May 14, 1980, it included a single subsidiary, Industries Merger Company, Inc. (Industries Merger). U.S. Radium then merged with Industries Merger. As a consequence of this action, U.S. Radium became a wholly-owned subsidiary of USR Industries.

After this reorganization had been accomplished, the previous directors of U.S. Radium became the directors of USR Industries. In the same year, the assets and liabilities of U.S. Radium, except for those related to the safety lighting business that had been conducted by that company under its byproduct material licenses, were spun-off by USR Industries into four separate, wholly-owned subsidiaries: USR Lighting, Inc.; USR Chemical Products, Inc.; USR Metals, Inc.; and U.S. Natural Resources, Inc. Also in 1980, U.S. Radium — which still retained the licensed safety lighting activities — changed its name to Safety Light Corporation (Safety Light).¹⁴

Thus, by the end of 1980, the licensee U.S. Radium was known as Safety Light, was a wholly-owned subsidiary of USR Industries, and was engaged only in the safety lighting business associated with the byproduct material licenses. This arrangement continued until May 24, 1982. On that date, USR Industries sold its entire interest in Safety Light to the three individuals serving as President and Vice-Presidents of that subsidiary. The NRC was not notified of that sale prior to its consummation and has never given its approval to that transaction.

B. On March 16, 1989, the staff issued an order directed by name to Safety Light, each of the USR Companies, and certain other corporations.¹⁵ The order

¹² Proxy Statement for the Annual Meeting of Stockholders of United States Radium Corporation and Prospectus of USR Industries, Inc. (July 11, 1980), at 14. This document is part of Attachment 3 to the NRC Staff's Response to Motion of USR Industries, Inc. [*et al.*] to Stay the Order Issued August 21, 1989 (November 16, 1989).

¹³ The facts set forth *infra* p. 357 are derived from various filings of the parties below and do not appear to be in dispute.

¹⁴ Reflecting this development, Amendment No. 42 (March 7, 1983) changed the name of the licensee on License No. 2 from U.S. Radium to Safety Light. This action was taken on the basis of a January 21, 1981, letter from Jack Miller, President of Safety Light, to Paul Guinn, an NRC official.

¹⁵ 54 Fed. Reg. 12,035-38 (1989). The other corporations were Lime Ridge Industries, Inc., Pinnacle Petroleum, Inc., and Metreal, Inc. Lime Ridge was identified as a purchaser of Safety Light; the latter two corporations were

called upon those entities to submit to the NRC's Region I Administrator within 45 days a joint plan to characterize the radioactivity at the Bloomsburg site.¹⁶ It went on to provide that, within 180 days of the Regional Administrator's endorsement of the submitted site characterization plan, the named corporations were to provide for his review and approval a report containing a complete radiological characterization of the site.¹⁷ Following approval of the report, the corporations would have 30 days within which to submit a single decontamination plan with a timetable for specific activities.¹⁸ With respect to the inclusion of the USR Companies in the order, the staff explained:

Neither prior notice to the NRC was given, nor NRC approval obtained, regarding the 1980 restructuring and subsequent sale or the full circumstances of the transfer of the NRC license, in violation of section 184 of the Atomic Energy Act and 10 CFR 30.34(b), which prohibit the transfer of a license, either directly or indirectly, unless the NRC, after securing full information, gives its consent in writing. It further appears from the 1980 Plan that these corporate transactions were a deliberate attempt to isolate the liability and responsibility for cleanup of the Bloomsburg facility . . . from other, presumably more profitable, aspects of U.S. Radium's, and later Industries', business ventures.

Neither U.S. Radium, USR Industries, nor any of their successor corporations or subsidiaries can avoid responsibility and liability for the cleanup of the Bloomsburg facility through the unlawful transfer of an NRC license, i.e., a transfer without the consent of the NRC, after full disclosure. Therefore, each of the corporations referred to in the caption of this Order ("Corporations") is, and remains, jointly and severally liable and responsible for the cleanup of the Bloomsburg facility and for the conduct of all other activities on that site that require an NRC license.¹⁹

The March 16 order was followed by a second and immediately effective order, issued on August 21.²⁰ Reciting apparent violations of the earlier order, as well as the absence of assurance of adequate funding to complete implementation of a satisfactory site characterization plan, the August 21 order requires the named corporations to establish a trust fund and to make deposits into it in \$50,000 or \$100,000 monthly installments between October 1989 and September 1990. The total amount of the required deposits is \$1,000,000.²¹

C. By filings dated April 17 and September 8, 1989, the USR Companies submitted answers and requests for a hearing with regard to the March 16 and August 21 orders, respectively. Each filing sought rescission of the particular

described as additional subsidiaries of USR Industries. On April 24, 1989, the staff amended its March 16 order by deleting *Pinnacle Petroleum*.

¹⁶ *Id.* at 12,037.

¹⁷ *Id.* at 12,037-38.

¹⁸ *Id.* at 12,038.

¹⁹ *Id.* at 12,036.

²⁰ 54 Fed. Reg. 36,078 (1989).

²¹ *Id.* at 36,078-79.

enforcement order (as applied to the USR Companies) for lack of jurisdiction. The USR Companies followed this with a November 20, 1989, motion to dismiss both orders on the ground, *inter alia*, that "the NRC does not have regulatory jurisdiction over USR Industries who is neither now, nor has ever been, an NRC licensee or in possession of NRC regulated materials."²²

Two days after the filing of that motion, the Licensing Board entered an order continuing *pendente lite* a temporary stay of the immediate effectiveness of the August 21 order, which had been granted at the request of the USR Companies during a telephone prehearing conference on October 27. In connection with this relief, the Board directed the filing of a statement respecting USR Industries' plan to fund the costs of site characterization and decontamination, in the event that the USR Companies are held liable for such costs. The Board further noted its determination that, while a "clear potential" exists for offsite migration of the onsite contamination at some future time, no immediate threat to the public health and safety had been demonstrated.²³

As earlier noted, in the first of its two orders under present attack, the Licensing Board denied the motion to dismiss.²⁴ In essence, the Board agreed with the staff that USR Industries' failure to disclose to the NRC the "elaborate and complex corporation restructuring" involving its licensee U.S. Radium was a violation of both section 184 of the Atomic Energy Act and an implementing Commission regulation.²⁵ In this connection, the Board stated:

There was no notice given of the transfers of controlling interest in the stock which could involve transfers of ownership and control of a license, requiring NRC written consent. In short, there was not even an attempt to comply with the mandatory requirements regarding "transfer of control of any license" upon written consent by the NRC after securing full information. The statute requires a full, fair disclosure to be made by licensees of actions involving the transfer or control of licenses, so that the NRC can make an informed judgment whether such actions are in accordance with the Atomic Energy Act. Clearly financial and other considerations related to decontamination of the site of licensed nuclear byproduct activities could and should be reviewed by the NRC in fulfilling its statutory responsibilities. However, the NRC never had an opportunity to review the effect of the significant changes in the license[e's] corporation because of the nondisclosure of the facts by the parties to this proceedings [sic]. As a result of noncompliance with the statutory requirements, the transfers of control of the licenses by corporate restructuring were invalid as to the NRC which is obligated by statute to disregard them.²⁶

²² Motion to Dismiss (November 20, 1989) at 1-2.

²³ Licensing Board Order (November 22, 1989) at 3 (unpublished).

²⁴ See LBP-90-7, 31 NRC at 130.

²⁵ *Id.* at 127-28 (citing 42 U.S.C. § 2234 and 10 C.F.R. § 30.34(b)). The Board also referred to section 183c of the Act, 41 U.S.C. § 2233(c). See LBP-90-7, 31 NRC at 121.

²⁶ *Id.* at 128 (footnote omitted).

The Board went on to consider and to reject a number of arguments advanced by the USR Companies, including the claim that (in the words of the Board) "only ownership, not control, was transferred, and that stock may regularly be bought and sold without NRC prior approval."²⁷ The Board opined that "[f]undamental changes in corporate structure, ownership, and control are the same as attempted transfers or assignments of licensees," adding that "[s]uch ownership and control transfers apply to both the 1980 restructuring and 1982 sale of all the Safety Light stock to the three management individuals."²⁸

Ten days after this jurisdictional ruling, the Licensing Board issued the second of the orders challenged by the USR Companies.²⁹ Treating a staff request for a further development of the reasons for the November 22 grant of a stay of immediate effectiveness of the staff's August 21 order as a motion for reconsideration of that grant, the Board modified the stay. This action was taken on the basis of the Board's analysis of the four factors that the Commission's Rules of Practice require be considered in deciding whether stay relief is appropriate.³⁰ Although concluding that a weighing of the factors favored reinstatement of the USR Companies' obligation to make the deposits called for by the staff's August 21 order, the Board further determined that those deposits should be placed into an escrow fund, not subject to disbursement or commitment pending the completion of the evidentiary hearings and the further order of the Board.³¹

II.

We long ago observed in the *Marble Hill* proceeding that, as a general matter, we undertake discretionary interlocutory review "only where the ruling below either (1) threaten[s] the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, [can]not be alleviated by a later appeal or (2) affect[s] the basic structure of the proceeding in a pervasive or unusual manner."³² The USR Companies maintain that both prongs of this test

²⁷ *Id.* at 129.

²⁸ *Ibid.*

²⁹ LBP-90-8, 31 NRC 143.

³⁰ Those factors, derived from *Virginia Petroleum Jobbers Ass'n v. Federal Power Commission*, 259 F.2d 921, 925 (D.C. Cir. 1958), are:

- (1) Whether the moving party has made a strong showing that it is likely to prevail on the merits;
- (2) Whether the party will be irreparably injured unless a stay is granted;
- (3) Whether the granting of a stay would harm other parties; and
- (4) Where the public interest lies.

³¹ 10 C.F.R. § 2.788(e).

³² LBP-90-8, 31 NRC at 148-49.

³³ *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).

are satisfied and also urge that there are other reasons why the Licensing Board orders in question should be reviewed at this time.³³ For its part, the staff is of the view that the jurisdictional holding in the January 29 order has a pervasive effect upon the basic structure of the proceeding but that there is no other basis for interlocutory review of that holding. The staff goes on to oppose outright our examination of the February 8 order at this juncture.

A. We are, of course, not bound to accept uncritically the agreement of the parties that the basic structure of the proceeding has been affected in a pervasive or unusual manner by the January 29 order denying the USSR Companies' motion to dismiss for lack of jurisdiction over their persons. To the contrary, while that agreement should be taken into account, we must decide ourselves whether there is sufficient cause for the exercise of our discretionary authority to review now an order that is indisputably interlocutory.

It cannot be said that every threshold order concerned with jurisdiction over a party or an issue necessarily will qualify for review under the second prong of the *Marble Hill* test. At the same time, however, less than a year ago in a different proceeding we invoked that prong in granting a motion of an intervenor seeking to obtain immediate appellate review of a licensing board order expunging a portion of a contention on the ground that another licensing board had exclusive "jurisdiction" over it. As we saw it, there could be little doubt that the Board's view of its own jurisdictional boundaries went to the basic structure of the proceeding and was pervasive in effect.³⁴

Although a quite different jurisdictional issue is considered in the January 29 order at hand, we think an equally persuasive case can be made for the proposition that the ruling on it has a significant and pervasive effect on this proceeding. Last November, the Licensing Board received a letter from then Safety Light counsel calling attention to developments assertedly having an "impact" on that company that would "directly or indirectly affect" its role in the proceeding.³⁵ Specifically, because of action taken by the Department of Energy, Safety Light had not received any shipments of tritium for several months and, as a consequence, its work force was idle and it was not generating revenue. Given this factor, the letter stated, Safety Light would "not be able to continue incurring its current level of expenses indefinitely."³⁶

We have nothing before us to suggest that Safety Light's economic situation has improved in recent months. Moreover, on January 4, 1990, its counsel

³³ In actuality, the USSR Companies address the *Marble Hill* criteria only in their motion seeking directed certification of the January 29 order. In their supplemental motion pertaining to the February 8 order, they point to other considerations, such as the Licensing Board's reliance in that order upon the January 29 order, as warranting interlocutory review.

³⁴ *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-916, 29 NRC 434, 437 (1989).

³⁵ Letter from D. Jane Drennan to Judge Helen F. Hoyt (November 17, 1989) at 1.

³⁶ *Ibid.*

filed a notice of withdrawal and there is no indication that the company has since obtained substitute counsel. In these circumstances, there is room for substantial doubt whether, and if so to what extent, Safety Light will be an active participant in the proceeding. Accordingly, the shape of the proceeding almost certainly is heavily influenced, if not wholly determined, by the Licensing Board's conclusion that the USR Companies are to remain as parties. That is enough to justify our passing judgment at this juncture on the substance of that conclusion.

B. Insofar as the February 8 order is concerned, it is not clear that the USR Companies could press their claim of entitlement to a stay of the immediate effectiveness of the staff's enforcement actions only through a petition for directed certification of the Licensing Board's order. It may well be that they could have obtained our consideration of that claim as a matter of right by renewing their stay application with us once the Licensing Board lifted in the February 8 order the stay it had previously entered.³⁷ We need not decide that question now, however. For, in all events, we are satisfied that the relationship between the January 29 and February 8 orders is such that the latter should be examined along with the former.

III.

Section 184 of the Atomic Energy Act, titled "Inalienability of Licenses," provides:

No license granted hereunder . . . shall be transferred, assigned or in any manner disposed of, either voluntarily or involuntarily, *directly or indirectly, through transfer of control of any license to any person*, unless the Commission shall, after securing full information, find that the transfer is in accordance with the provisions of this [Act], and shall give its consent in writing.³⁸

³⁷ See, e.g., *Toledo Edison Co.* (Davis-Besse Nuclear Power Station, Units 1, 2 & 3), ALAB-364, 5 NRC 35, 36 (1977).

The provision in the Rules of Practice pertaining to stays, 10 C.F.R. § 2.788, does not, by its terms, apply to the case at bar. It is concerned with applications for a stay of the effectiveness of a *decision or action of a licensing or appeal board*, pending the filing and disposition of an appeal or petition for review of such adjudicatory board action. Here, in contrast, the USR Companies actually seek a stay of the effectiveness of the *staff's administrative enforcement order*, pending hearing before the Licensing Board on that order. Both the staff and the USR Companies argued below, however, that the Licensing Board had the power to stay the immediate effectiveness of the staff's August 21 order, and the Licensing Board concurred. LBP-90-8, 31 NRC at 146. We agree as well. The staff's August 21 order indicated that, at the hearing to be held before the Licensing Board, "the issue to be considered . . . shall be whether [the August 21 order] should be sustained." 54 Fed. Reg. at 36,080. It is reasonable to infer from this that the Licensing Board was also empowered to consider whether the order should be effective during the pendency of the hearing. See 10 C.F.R. § 2.718(m) (licensing board may take any action consistent with the Atomic Energy Act, the Rules of Practice, and the Administrative Procedure Act).

³⁸ 42 U.S.C. § 2234 (emphasis supplied).

On its face, this provision applies fully to byproduct material licenses issued under section 81 of the Act and 10 C.F.R. Part 30. It is thus not surprising that its essential terms are carried over, *in haec verba*, into section 30.34(b) of the Commission's regulations governing such licenses.³⁹

The pivotal question before us on the jurisdictional matter is whether either (or both) the restructuring of U.S. Radium in 1980 or the sale of the Safety Light Corporation two years later comes within the provisions of section 184. More specifically, did either one (or both) of those developments involve the direct or indirect transfer, assignment, or disposal of the licenses issued to U.S. Radium, through a transfer of control of those licenses? As we understand their argument, the USR Companies do not dispute that if, contrary to their position, this question requires an affirmative answer, the necessary consequence is that the staff was empowered to include them within the scope of the enforcement orders. By the same token, the staff and the Licensing Board appear implicitly to acknowledge that, if section 184 of the Act and the implementing regulation do not come into play here, the staff lacks the authority to exercise regulatory jurisdiction over the corporations.

We are thus called upon here to decide what constitutes, for purposes of enforcement of the section 184 mandate, the direct or indirect transfer of a license through a "transfer of control" of that license. More specifically, we must determine whether, as the USR Companies maintain, a transfer of control over the license did not take place here because all that occurred was a restructuring of the corporation holding the license, followed by a sale of the stock in that corporation. In that connection, the USR Companies invoke the assertedly longstanding principle of corporate law to the effect that "'the transfer of shares of stock does not operate to transfer any of the corporate assets.'"⁴⁰

We find nothing in the legislative history of section 184 that significantly aids the USR Companies' insistence that Congress enacted the section with that principle — or any other specific tenet of corporate law — in mind.⁴¹ We are told by the movants that, as originally proposed, the section referred to the transfer of a *licensee* rather than, as ultimately enacted, the transfer of a *license*.⁴² They candidly concede, however, that there is no available explanation as to the reason for the change in language, let alone an express indication that

³⁹ 10 C.F.R. § 30.34(b).

⁴⁰ Supplemental Motion of USR Industries, Inc. [*et al.*] for Directed Certification (February 13, 1990) [hereinafter "Supplemental Motion"] at 7 (citing 12 W. Fletcher, *Cyclopedia of the Law of Private Corporations* § 5463, at 310 (rev. 1985)).

⁴¹ In any event the relied-upon principle is inapplicable here. See *infra* pp. 365-67.

⁴² Supplemental Motion at 9 (citing H.S. Marks & G.F. Trowbridge, *Framework for Atomic Strategy: A Commentary on the Atomic Energy Act of 1954*, at C-69 n.68 (1955)).

the congressional intent in effecting that change was to exclude from the ambit of section 184 transactions like those at issue here.⁴³

Nor do we think that such a legislative intent should be inferred from the difference in language between section 184 of the Atomic Energy Act and section 310(d) of the federal Communications Act of 1934, as amended.⁴⁴ At oral argument, and in a subsequent memorandum filed with our permission, the USR Companies directed us to the fact that the latter statutory provision, similarly dealing with, *inter alia*, the direct or indirect transfer of a license without prior agency approval, is cast in terms of the "transfer of control of any corporation holding [the] . . . license." It may well be that (as not disputed in the staff's response) "the licensing provisions of the Atomic Energy Act were based on those contained in the earlier enacted Federal Communications Act."⁴⁵ Once again, however, the legislative history of section 184 is silent as to the reason for describing the significant event as the "transfer of control of [the] license" rather than the "transfer of control of [the] corporation holding [the] . . . license."

Had the intent been to make the reach of section 184 more limited than that of section 310(d) of the Communications Act (as the USR Companies would have it), the high probability is that this intent would have been disclosed in committee reports or in the debate on the House or Senate floor. This is especially so inasmuch as there is no cause to believe that Congress would have desired certain transfers of total ownership of licensed radio stations to require prior agency approval in circumstances where identical transfers of total ownership in corporations holding nuclear licenses would not require such approval. Indeed, given the manifest public health and safety implications of activities under nuclear licenses, it is reasonable to assume that Congress would have been even more interested in clothing this Commission with the authority to pass advance judgment on the acceptability of transactions such as those now in issue. In any event, the absence of any concrete evidence in the legislative history to support the USR Companies' thesis necessitates that we base our decision on the plain meaning and a practical application of the terms of section 184 themselves. Stated otherwise, the appropriate inquiry is whether, in reality, the 1982 sale of Safety Light or the 1980 restructuring of U.S. Radium effected, *either directly or indirectly*, a transfer of control of the licenses issued to U.S. Radium, as the concept of control is generally understood.⁴⁶

⁴³ See *ibid.*

⁴⁴ 47 U.S.C. § 310(d).

⁴⁵ Submission of USR Industries, Inc. (March 7, 1990) at 2.

⁴⁶ A shareholder is deemed to have control of a corporation "when she [or he] determines corporate policy, whether by personally assuming management responsibility or by selecting management personnel." *In re N&D Properties, Inc.*, 799 F.2d 726, 732 (11th Cir. 1986). The authority to make the crucial policy determinations thus
(Continued)

A. Insofar as the 1982 sale is concerned, we discern no room for reasonable doubt that a transfer of control took place. In this regard, we find totally irrelevant the fact that, as the USR Companies stress, under corporate law a transfer of shares of stock does not serve as a transfer of corporate assets. Apart from the absence of anything to indicate that Congress intended that doctrine to govern the application of section 184 of the Atomic Energy Act, our concern here is with the transfer of control over the licenses issued to U.S. Radium. Irrespective of whether those licenses themselves (as a corporate asset) are deemed to have been transferred when USR Industries sold its 100% interest in its Safety Light (nee U.S. Radium) subsidiary to the three individuals, it cannot be seriously maintained that the effect of the sale was not a transfer of control.

Before the sale, those who possessed dominion over the full range of the operations of *USR Industries* had the authority, if they desired to exercise it, to call the tune with respect to Safety Light's activities under the licenses by reason of Safety Light's status as a wholly-owned subsidiary. (Of course, exercising that right would require observance by USR Industries of all of the terms and conditions of the licenses.) This is so even though the 1982 purchasers of Safety Light also happened to be its President and two Vice Presidents. Upon consummation of the sale, USR Industries' management necessarily relinquished all right to dictate how the licensed activities should be conducted. Rather, the full right to direct those activities — and thus to control the licenses themselves — became vested in the new owners of Safety Light (subject to the same requirement of conformity to the dictates of the licenses).⁴⁷

At oral argument and in response to a Board question, USR Companies' counsel opined that, instead, both before and after the sale, the "radiation safety officer and the named people in the license had control of the license and the licensed activity."⁴⁸ For a variety of reasons, that thesis is unpersuasive. To begin with, the regulations governing the issuance of a "specific" byproduct material license do not appear to require the identification of anyone apart from the "person" who has filed the application and to whom the license is issued.⁴⁹ Accordingly, it is not surprising that the license issued to U.S. Radium by the AEC in 1956 referred to that corporation as the licensee and made no reference to any particular individual.

being the pivotal factor, it would appear to follow, as a general matter, that control of a license is in the hands of the person or persons who are empowered to decide when and how that license will be used.

⁴⁷ There is no suggestion that the Safety Light purchasers also controlled USR Industries, with the consequence that, prior to the sale to them, they had unfettered authority over the activities of Safety Light so long as the terms and conditions of the byproduct material licenses were observed.

⁴⁸ App. Tr. 38.

⁴⁹ See 10 C.F.R. §§ 30.31-35. "General" byproduct material licenses, which are not involved here, do not require "the filing of applications with the Commission or the issuance of licensing documents to particular persons." 10 C.F.R. § 30.31.

To be sure, in a condition in License No. 2 as initially issued (and in other licenses as well), the Commission directed that the byproduct materials were to be used at a specified address of the licensee (i.e., Bloomsburg) and "by, or under the supervision of, individuals approved by the [licensee's] radioisotope committee." But that condition, obviously intended to ensure that qualified licensee employees conducted or supervised the licensed activities, scarcely put those employees in "control" of the license within the meaning of section 184 of the Atomic Energy Act. Rather, that control remained in the hands of the licensee itself, i.e., the owners and senior managers of the parent corporation, originally U.S. Radium and, after the 1980 corporate restructuring, USR Industries. Although having to comply with all license conditions, including that concerned with the hands-on direction of the licensed activities, those individuals — as possessors of the authority that accompanies 100% ownership of a corporation — necessarily could exercise, if they so desired, the ultimate decisional authority on all matters pertaining to the use of the license. Among other things, it was the U.S. Radium (later USR Industries) owners who had the power — which they might or might not have sought to invoke — to provide the final word (through their designated directors and senior management) as to which employees should serve on its radioisotope committee or otherwise be involved in the licensed activities. Moreover, at least so long as no violation of a license condition was being compelled, the committee members, no less than any other company employees, would have been obliged to obey any orders or instructions received from senior management of the body representing the 100% ownership of the licensee corporation. In the last analysis, given the duty of the radioisotope committee to satisfy all license conditions pertaining to the handling of byproduct material, if anything, the licenses "controlled" the committee members, rather than vice versa.

A different result is not suggested because, in amendments to License No. 2 (as in other licenses), either the chairman of the radioisotope committee or other U.S. Radium employees were identified by name in a license condition. Whether or not there is such an identification, the crucial consideration remains the same: each license was under the control of U.S. Radium until the 1980 corporate restructuring, at which time control shifted to USR Industries as the newly formed parent of U.S. Radium. As for the named U.S. Radium employees, although they were either to conduct the licensed activities themselves or to supervise them, those employees were fully subject after the restructuring to any directions that might have been forthcoming from USR Industries officials,

to the extent that those directions did not conflict with requirements imposed by the Commission through a license term or condition.⁵⁰

Finally, the USR Companies would attach significance to the fact that, unlike applications for Part 30 byproduct material licenses, applications by corporations for licenses under 10 C.F.R. Part 50 to construct or to operate commercial nuclear power facilities, must include, *inter alia*, the names, addresses, and citizenship of the applicant utility's directors and principal officers.⁵¹ We are asked to infer from that fact that the NRC does not believe that control of a Part 30 license, as distinguished from control of a Part 50 license, is vested in the corporate directors or principal officers.

We see no basis for drawing any such inference, and the USR Companies suggest none. No doubt, the Commission has its reasons for requiring utilities seeking to construct or to operate massive nuclear power plants to provide information that is not likewise required of a corporate applicant for a byproduct material license, which generally are of much smaller dimensions. There is, however, no cause to suppose that one of those reasons is that the Commission perceives fundamental differences in the concept of control of a Part 50 license, as compared with that of a Part 30 license. Indeed, the Commission's implementing regulations in the two Parts are identical to the extent relevant here.⁵²

In sum, although there are obvious differences between Part 30 and Part 50 licenses (and the processes necessary to obtain them), none of those differences is pertinent to the matter of where "control" of the license lies within the meaning of the Atomic Energy Act and the implementing regulations. In the instance of a corporate Part 30 or Part 50 licensee, that control is to be found in the person or persons who, because of ownership or authority explicitly delegated by the owners, possess the power to determine corporate policy and thus the direction of the activities under the license. Here, to repeat, control over the license in question thus was in the hands of USR Industries at the time of the sale of its wholly-owned Safety Light subsidiary and, upon that sale, the control was transferred to the purchasers without the NRC's consent.⁵³

⁵⁰ As earlier noted, *supra* p. 356, some of the other byproduct material licenses issued to U.S. Radium did not contain any restrictions relating to the employees who could use the licensed material. Under the USR Companies' thesis, then, who had control of those licenses within the meaning of section 184 of the Act?

⁵¹ See 10 C.F.R. § 50.33(d)(3)(ii).

⁵² Compare 10 C.F.R. § 30.34(b) with *id.* § 50.80(a). The USR Companies point to nothing in the administrative history of the two sections that might support a claim that the Commission intended the sections to have disparate effects.

⁵³ It should be noted that the foregoing discussion is cast wholly in terms of the *right* to assert dominion over the license and the licensed activities once the restructuring had been accomplished. In our view, the fact that 100% ownership of Safety Light manifestly gave USR Industries that right is dispositive of the *jurisdictional* question at bar. Stated otherwise, although for other purposes it might be relevant under general principles of corporate law whether, and if so to what extent, a subsidiary's day-to-day operations are actually supervised by the parent, as the movants appear to acknowledge implicitly, that is not a pertinent consideration insofar as the application

(Continued)

B. In view of the foregoing, we need not decide whether the corporate restructuring that occurred in 1980 similarly involved a transfer of control over the byproduct material licenses within the meaning of section 184 of the Atomic Energy Act. For present purposes, it suffices that the 1982 sale of Safety Light occasioned such a transfer. USR Industries' failure to have notified the Commission of the proposed transfer, and to have obtained the Commission's consent, are a sufficient foundation for the staff's inclusion of that corporation in its enforcement orders.

There is still the question whether the assets of the four remaining wholly-owned subsidiaries of USR Industries would be available to satisfy any monetary relief that might be directed against the parent corporation in connection with the decontamination of the Bloomsburg site. Put another way, particularly given the fact that none of those subsidiaries has ever been engaged in the licensed activities, is their separate corporate status a sufficient reason for insulating them from any decontamination liability that might attach to their parent because of its ownership and unlawful transfer of the subsidiary that did conduct those activities?

The record now before us does not permit an answer to that question. It appears that, prior to the restructuring of U.S. Radium in 1980, all of the various undertakings of that company were under one corporate roof — with the consequence that all of the assets associated with those undertakings (and not just those pertaining to the licensed activities) would have then been available to satisfy any decontamination liability that might have been imposed at that time. According to the staff's March 16 order, one effect of the restructuring was to isolate the licensed activities and the assets and liabilities associated therewith.⁵⁴ As we have seen, those activities were given a corporate existence separate and distinct from that of the other U.S. Radium pursuits.

What is less obvious is whether the central purpose of placing the licensed activities within a corporation encompassing only those activities was to put the other assets of the licensee U.S. Radium (as it existed prior to the restructuring) deliberately beyond the reach of an NRC enforcement order. Indeed, deciding whether it is appropriate "to pierce the corporate veil" in this regard appears to be a significant issue for the hearing below.⁵⁵ Thus, in the circumstances,

of section 184 of the Atomic Energy Act is concerned. Thus, for the limited purpose of determining whether the sale of Safety Light by USR Industries (the only entity that could effect that sale) violated that section, it is not necessary to explore further the degree of actual involvement on the parent's part in the affairs of the subsidiary. That might or might not require exploration by the Licensing Board in determining the extent of USR Industries' liability for the costs associated with the decontamination of the Bloomsburg site. *See generally* 18 Am. Jur. 2d *Corporations* §§55-62 (1985).

⁵⁴ 54 Fed. Reg. at 12,036.

⁵⁵ *See, e.g., Capital Telephone Co. v. FCC*, 498 F.2d 734, 738 n.10 (D.C. Cir. 1974) ("Where the statutory purpose could be easily frustrated through the use of separate corporate entities a regulatory commission is entitled to look through corporate entities and treat the separate entities as one for purposes of regulation").

it is best left to the Licensing Board to come to grips in the first instance (if necessary), with the matter whether the separate corporate status of the USR Industries subsidiaries serves to shield them and their assets from the satisfaction of any liability imposed upon the parent corporation.

C. Remaining for consideration is the Licensing Board's February 8 order in which it lifted the previously-issued stay of immediate effectiveness of the staff's August 21 "trust fund" order, subject to payments being held in an escrow account during the litigation.⁵⁶ At oral argument, the USR Companies' counsel asked that we stay *pendente lite* the February 8 order. In response, two days later we issued an order in which we modified the February 8 order in this respect:

Pending our further order, the USR Companies need not make the *cash* payments contemplated by [the Licensing Board's February 8] order so long as they furnish the staff with an equivalent security interest in assets possessed by them. To this end, the USR Companies and the staff shall immediately commence negotiations on the matter of the nature and extent of the security interest necessary to ensure that, should the ultimate disposition of the underlying litigation be unfavorable to the USR Companies, the purpose that was to be served by the escrow fund described in the February 8 order will be fully satisfied.⁵⁷

We now affirm the Licensing Board's February 8 order as thus modified and subject to one further condition. Manifestly, given our conclusion on the jurisdictional issue, the staff is entitled to take steps to assure that there will be funds available to satisfy any decontamination liability that may be imposed upon USR Industries. At oral argument, we were told by its counsel that, for reasons associated with the assertedly adverse prevailing economic conditions in Texas, where certain of its assets are located, any requirement that it make cash deposits to the escrow fund would work a substantial financial hardship upon USR Industries.⁵⁸ That representation led to our modification of the February 8 order as a reasonable accommodation of the competing interests of USR Industries and the staff.

Negotiations concerning an appropriate security interest in the USR Companies' assets have now been under way between those firms and the staff for approximately six weeks, with no resolution yet.⁵⁹ We believe that an additional

⁵⁶ The USR Companies insist that, once the Licensing Board decided to treat the staff's request for an explanation of the Board's earlier order granting a stay as, instead, a motion for reconsideration of that stay, it had to provide an opportunity for the USR Companies to respond. Supplemental Motion at 15-16. That line of argument ignores the fact that the Board did not receive any further pleadings from the staff to which the USR Companies might have responded. Notwithstanding the label assigned by the Licensing Board, the February 8 order was not prompted by a staff motion for reconsideration; rather, the order was the product of the Board's *sua sponte* reassessment of the previous filings of both parties. That being so, in reality there was no failure to observe the provisions of 10 C.F.R. § 2.730(c) relating to the opportunity to respond to motions.

⁵⁷ Appeal Board Order (March 8, 1990) at 2 (emphasis in original; footnote omitted) (unpublished).

⁵⁸ App. Tr. 61-62.

⁵⁹ See Joint Status Reports filed March 22 and April 6, 1990.

two weeks is an adequate time in which to complete the negotiations. If the USR Companies have not provided the staff with the requisite security interest within two weeks of the service date of this decision, the USR Companies' obligation to make *cash* payments under the staff's August 21, 1989, order, as modified by the Licensing Board's February 8 order, is reinstated.

For the foregoing reasons, we *affirm* both the Licensing Board's January 29, 1990, order, LBP-90-7, 31 NRC 116, and its February 8, 1990, order, LBP-90-8, 31 NRC 143, as modified in accordance with this opinion.⁶⁰

It is so ORDERED.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

⁶⁰ We have just received today yet another filing of the USR Companies, characterized as a supplement to their motion below to dismiss the staff's enforcement orders as to them. In that filing, the USR Companies assert that it is clear from the staff's responses to their interrogatories "that there has been a complete absence of any consistent pattern with regard to NRC's application of section 184 of the Atomic Energy Act and 10 C.F.R. § 30.34b. — except, prior to March 7, 1989, a pattern of not requiring, with one exception, prior consent for any stock transfer." Supplement to Motion of USR Industries, Inc. [*et al.*] to Dismiss Orders Issued March 16, 1989 and August 21, 1989 (April 19, 1990) at 5.

In deciding the merits of the controversy, the Licensing Board should consider this assertion, as well as its underpinnings and the consequences that are said to flow from it. (Among other things, the USR Companies maintain that, if they had sought approval of the Safety Light sale, in the circumstances that approval most certainly would have been forthcoming.) But the inconsistent manner in which the staff purportedly has applied the governing statutory and regulatory provisions in the past scarcely is dispositive of the *jurisdictional* question now before us. That narrow question must instead be resolved on the basis of the terms of the governing statute and regulations without regard to the diligence or lack thereof on the staff's part in the past enforcement of those terms.

Accordingly, we *refer* the April 19 supplemental filing to the Licensing Board for its consideration following receipt of the staff's response.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

G. Paul Bollwerk, III, Chairman
Alan S. Rosenthal
Howard A. Wilber

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(Offsite Emergency
Planning Issues)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

May 31, 1990

In reviewing LBP-88-32, 28 NRC 667 (1988), concerning the New Hampshire Radiological Emergency Response Plan (NHRERP) for the Seabrook Station, the Appeal Board affirms those portions of LBP-88-32, 28 NRC 667, regarding "Response Personnel Adequacy," "Human Behavior in Emergencies," and "Evacuation Time Estimates (ETEs)," and unpublished Licensing Board rulings on Seacoast Anti-Pollution League (SAPL) Contentions 4 and 5, except that the Appeal Board reverses and remands the Licensing Board's ruling on ETEs for further calculations relative to the "hidden vehicles" described in ¶ 9.120 of LBP-88-32. Thus, the Appeal Board addresses the remainder of issues concerning the NHRERP not covered by ALAB-924, 30 NRC 331 (1989), *petitions for review pending*. In addition, the Board further explains some matters in light of CLI-90-2, 31 NRC 197 (1990), *petition for review pending sub nom. Massachusetts v. NRC*, No. 90-1132 (D.C. Cir. filed Mar. 7, 1990), the Commission's recent decision in which it discussed whether emergency plan-

ning requirements are “adequate protection” standards within the meaning of section 182 of the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2232).

EMERGENCY PLANNING: RESPONSE PERSONNEL

For purposes of judging the adequacy of state and local response personnel resources, individuals properly are considered to be “available” to provide services if they are within an organization or “pool” that is a candidate to perform a particular response function.

EMERGENCY PLANNING: RESPONSE PERSONNEL

The Licensing Board’s conclusion that (1) “temporal availability” of response personnel (i.e., the ability to participate in response activities on a twenty-four hour basis, and (2) “volitional availability” of response personnel (i.e., the willingness to participate in response activities), is more properly addressed and evaluated as part of the “planning” and “implementation” process (including the full-scale emergency response exercise), rather than in assessing the adequacy of response personnel resources “pools,” is a reasonable one that is not at odds with any existing regulatory requirement.

EMERGENCY PLANNING: RESPONSE PERSONNEL; REGULATORY GUIDANCE (NUREG-0654)

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.47(b)(1))

The declaration in 10 C.F.R. § 50.47(b)(1) that each principal response organization must have “staff to respond and to augment its initial response on a continuous basis” and the guidance in NUREG-0654 Criterion II.A.4 that “[e]ach principal organization shall be capable of continuous (24-hour) operations for a protracted period” do not require or suggest any particular time by which a response organization must be “fully staffed” or any particular method by which staffing adequacy must be demonstrated.

EMERGENCY PLANNING: PUBLIC NOTIFICATION; RESPONSE PERSONNEL

REGULATIONS: INTERPRETATION (10 C.F.R. Part 50, APP. E, § IV.D.3)

Section IV.D.3 of Appendix E to 10 C.F.R. Part 50, while mandating that the licensee must have the capability to notify state and local officials within

fifteen minutes of declaring an emergency and that the capability must exist to notify the public of a situation requiring urgent action within fifteen minutes of notifying state and local officials, does not require any particular time for attaining full response organization staffing or any particular method by which staffing adequacy must be demonstrated.

EMERGENCY PLANNING: RESPONSE PERSONNEL

In the absence of any compelling showing that significant segments of those in the response personnel "pools" being relied upon as a principal planning basis to establish response personnel resources adequacy are for one reason or another likely to be "unavailable," there was no need for emergency planners to make a separate "availability" showing as part of the process undertaken to identify those "pools."

EVIDENCE: DUTY TO PROVIDE

A party that fails to put forth allegedly relevant information on direct examination is not entitled to have that information considered because it could have been elicited during cross-examination.

EMERGENCY PLANNING: FEMA FINDINGS (NEED FOR FINAL FINDINGS)

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.47(a)(2))

"Section 50.47(a)(2) does not require deferment of any hearing on State and local government emergency response plans to await FEMA's issuance of final findings on those plans. Rather, what that [s]ection contemplates is a licensing decision based on the best available current information on emergency preparedness." *Cincinnati Gas & Electric Co.* (William H. Zimmer Nuclear Power Station, Unit No. 1), ALAB-727, 17 NRC 760, 775 (1983) (citation and footnote omitted). See also *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-776, 19 NRC 1373, 1379 (1984); *Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC 346, 379-80 (1983).

EMERGENCY PLAN(S): CONTENT (SUFFICIENCY)

LICENSING BOARD(S): DISCRETION IN MANAGING PROCEEDINGS

It is for the Licensing Board to judge at exactly what stage an emergency plan is sufficiently developed to allow for hearings and a decision, taking into account the evidence on the current state of the plan. *Zimmer, ALAB-727, 17 NRC at 775.*

EVIDENCE: ADMISSIBILITY (SURREBUTTAL TESTIMONY)

LICENSING BOARD(S): DISCRETION IN MANAGING PROCEEDINGS (SURREBUTTAL TESTIMONY)

The admission of surrebuttal testimony is a matter within the discretion of a Licensing Board, particularly when the party sponsoring the testimony reasonably should have anticipated the attack upon its evidence. *See Cellular Mobile Systems v. FCC, 782 F.2d 182, 201-02 (D.C. Cir. 1985).*

RULES OF PRACTICE: APPELLATE REVIEW

APPEAL BOARD(S): SCOPE OF REVIEW

It is a "settled principle of appellate practice that an appellant is ordinarily precluded from pressing issues or advancing arguments not presented to the trial tribunal," except possibly in the case of "serious substantive issues." *ALAB-924, 30 NRC at 358.*

EVIDENCE: INFERENCES; QUANTUM OF PROOF

RULES OF PRACTICE: EXPERT WITNESS

In reviewing Licensing Board findings based on the testimony of applicants' expert witnesses, "[t]he possibility that inconsistent or even contrary inferences could be drawn if the views of [intervenors'] experts were accepted does not prevent the trial board's findings from being supported by substantial evidence." *Northern Indiana Public Service Co. (Bailly Generating Station, Nuclear 1), ALAB-303, 2 NRC 858, 866 (1975) (citations omitted).*

APPEAL BOARD(S): STANDARD OF REVIEW

After giving the Licensing Board's factual findings the probative force they intrinsically command regarding aberrant behavior by the general public, the Appeal Board concludes there is no basis for reversing that finding.

RULES OF PRACTICE: IMMEDIATE EFFECTIVENESS REVIEW (EFFECT ON APPEAL BOARD DECISIONS)

A Commission observation in its immediate effectiveness review concerning the adjudicatory record is not binding upon the Appeal Board. *See* 10 C.F.R. § 2.764(g).

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES

EMERGENCY PLANS: CONTENT (PROTECTIVE MEASURES)

Planning officials are required to develop "[g]uidelines for the choice of protective actions during an emergency." 10 C.F.R. § 50.47(b)(10). To this end, planners also are to "provide an analysis of the time required to evacuate and for taking other protective actions for various sectors and distances within the plume exposure pathway EPZ [(i.e., emergency planning zone)] for transient and permanent populations." *Id.* Part 50, App. E, § IV.

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES; REGULATORY GUIDANCE (NUREG-0654)

An evacuation time estimate (ETE) should be prepared "based on a dynamic analysis (time-motion study under various conditions) for the [EPZ]." NUREG-0654 Criterion II.J.10.1. *See also* Appendix A to NUREG-0654.

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES

"[T]he [ETE] analysis is intended to reflect a realistic time for completing an evacuation." *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-845, 24 NRC 220, 244 (1986); *see also* *Limerick*, ALAB-836, 23 NRC 479, 486 (1986). With this information in hand, "emergency coordinators can then decide what protective actions (e.g., sheltering or evacuation) are warranted in the circumstances, if a radiological emergency occurs." *Limerick*, ALAB-845, 24 NRC at 244; *see also* *Limerick*, ALAB-836, 23 NRC at 486.

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES

The ETE is only a planning tool; as such, Commission regulations establish no particular time limits for completing an EPZ evacuation. *See Limerick*, ALAB-845, 24 NRC at 244; *Limerick*, ALAB-836, 23 NRC at 486.

EMERGENCY PLANNING: REQUIREMENTS; RESPONSE PERSONNEL

There is no regulatory requirement that the State permanently assign existing police resources to a particular location to ensure that there are no staffing delays in the event of a radiological emergency. Simply because additional police resources will be needed in a particular location in the event of a radiological emergency and will require some period of time to arrive, this potential for delay does not require that permanent police staffing in that area be "beefed up" to a degree beyond what is otherwise required to provide adequate law enforcement protection under normal circumstances. *See Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 536 (1983), *rev'd in part on other grounds*, *GUARD v. NRC*, 753 F.2d 1144 (D.C. Cir. 1985).

RULES OF PRACTICE: OFFICIAL NOTICE

The Appeal Board may take official notice of the State of New Hampshire Traffic Management Manual accompanying the New Hampshire Radiological Emergency Response Plan. *See* 10 C.F.R. § 2.743(i).

EMERGENCY PLANNING: REQUIREMENTS

If a particular accident sequence requires that protective action be taken when state and local emergency response efforts are not fully mobilized, response officials would have to weigh whatever increased risks may be attendant upon taking a particular protective action (such as an evacuation) without having the planned response personnel in place.

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES; REGULATORY GUIDANCE (NUREG-0654)

In producing ETEs, planners should include "[e]stimates of transient populations . . . such as peak tourist volumes." NUREG-0654, App. 4, at 4-3.

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES; REGULATORY GUIDANCE (NUREG-0654)

For the ocean beach area within the EPZ, NUREG-0654's guidance to calculate the ETEs on the basis of "peak tourist volumes" is well served by the use of the "reasonable expectable occupancy" method (i.e., a method that uses an estimate of parked vehicles, as well as vehicles in transit, on a peak representative day).

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES

When the vehicle count used in calculating the ETE for the beach population was based on an estimate of the actual number of vehicles on a representative peak day and when "convincing un rebutted testimony" had been presented that there were "hidden vehicles," i.e., vehicles not observable from aerial photographs (and such number of vehicles was set forth in the Licensing Board's findings), the Board erred in not requiring that those hidden vehicles be incorporated within the appropriate ETE calculations.

EMERGENCY PLANNING: EVACUATION TIME ESTIMATES; REGULATORY GUIDANCE (NUREG-0654)

EMERGENCY PLAN(S): STATE AND LOCAL GOVERNMENT RESPONSIBILITIES

REGULATIONS: INTERPRETATION (10 C.F.R. PART 50, APP. E)

While there may be an independent responsibility on the part of the State to incorporate revised ETEs into an emergency plan, *see* NUREG-0654 Criterion II.J.10.l-m, the applicant rather than the State is responsible for preparing an amended set of ETEs, *see* 10 C.F.R. Part 50, App. E, § IV; NUREG-0654 Criterion II.J.8.

RULES OF PRACTICE: APPEAL BOARD DECISIONS (EFFECT ON LICENSE AUTHORIZATION)

When full-power authorization has been made effective, in remanding matters, the Appeal Board must consider the impact of its action upon that authorization. *Limerick*, ALAB-845, 24 NRC at 234; *Limerick*, ALAB-836, 23 NRC at 250; *see* CLI-90-3, 31 NRC at 230.

RULES OF PRACTICE: APPEAL BOARD DECISIONS (EFFECT ON LICENSE AUTHORIZATION)

When additional calculations mandated by the Appeal Board to correct an ETE deficiency do not require significant time or resources to complete and are not likely to result in a profound change in the present ETEs, an existing licensing authorization need not be vitiated. *See* 10 C.F.R. § 50.47(c)(1).

EMERGENCY PLANNING: MEDICAL SERVICES ARRANGEMENTS

REGULATIONS: INTERPRETATION (10 C.F.R. § 50.47(b)(12))

When, in conformance with a Commission policy statement, applicants (1) had provided a list of local medical facilities capable of administering care to contaminated individuals, and (2) had committed to comply fully with any additional Commission requirements that might be imposed in response to a judicial determination overturning the Commission's previous interpretation of the scope of necessary medical services arrangements under 10 C.F.R. § 50.47(b)(12), the Licensing Board properly rejected an intervenor's contention challenging applicants' compliance with the requirements of 10 C.F.R. § 50.47(b)(12).

RULES OF PRACTICE: MOTIONS FOR SUMMARY DISPOSITION

When a party fails to controvert material facts as established by another party in support of a motion for summary disposition, they are effectively admitted. *See* 10 C.F.R. § 2.749(a).

ATOMIC ENERGY ACT: INTERPRETATION

EMERGENCY PLANNING: BASIS FOR REQUIREMENT

Emergency planning is an "adequate protection" standard under section 182 of the Atomic Energy Act (AEA). CLI-90-2, 31 NRC at 210-13.

EMERGENCY PLANNING: BASIS FOR REQUIREMENT; REQUIREMENTS

To determine whether an emergency plan provides "adequate protection," the plan must be assessed in terms of whether it meets the sixteen planning standards of 10 C.F.R. § 50.47(b). CLI-90-2, 31 NRC at 213, 217.

APPEARANCES

John Traficonte, Boston, Massachusetts (with whom **Allan Fierce**, Boston, Massachusetts, was on the brief), for the intervenor **James M. Shannon**, Attorney General of Massachusetts.

Diane Curran, Washington, D.C., for the intervenor **New England Coalition on Nuclear Pollution**.

Robert A. Backus, Manchester, New Hampshire, for the intervenor **Seacoast Anti-Pollution League**.

Paul McEachern, Portsmouth, New Hampshire (with whom **Matthew T. Brock**, Portsmouth, New Hampshire, was on the brief), for the intervenor **Town of Hampton**.

Thomas G. Dignan, Jr., Boston, Massachusetts (with whom **George H. Lewald**, **Kathryn A. Selleck**, **Jeffrey P. Trout**, **Jay Bradford Smith**, and **Geoffrey C. Cook**, Boston, Massachusetts, were on the brief), for the applicants **Public Service Company of New Hampshire**, *et al.*

Sherwin E. Turk for the Nuclear Regulatory Commission staff.

DECISION

In ALAB-924,¹ we addressed a number of issues raised by intervenors Attorney General of Massachusetts (MassAG), the New England Coalition on Nuclear Pollution (NECNP), the Seacoast Anti-Pollution League (SAPL), and the Town of Hampton (TOH) in their appeal from the Licensing Board's December 30, 1988 partial initial decision on emergency planning for the New Hampshire portion of the plume exposure pathway Emergency Planning Zone (EPZ) for the Seabrook Station.² In this decision, we address the balance of those matters raised by intervenors' appeals regarding the New Hampshire Radiological Emergency Response Plan (NHRERP).³ Specifically, we confront those issues advanced concerning the portions of the Licensing Board's decision entitled "Response Personnel Adequacy," "Human Behavior in Emergencies,"

¹30 NRC 331 (1989), *petitions for review pending*.

²LBP-88-32, 28 NRC 667 (1988).

³Unless otherwise indicated, all citations in this decision to the NHRERP are to Revision 2 issued in August 1986.

and "Evacuation Time Estimates (ETEs)." In addition, we address a number of other issues raised by intervenors and include a further explanation regarding several matters in light of CLI-90-2,⁴ the Commission's recent decision in which it discussed whether emergency planning requirements are "adequate protection" standards within the meaning of section 182 of the Atomic Energy Act of 1954, as amended (AEA).⁵

I. RESPONSE PERSONNEL ADEQUACY

Intervenors asserted before the Licensing Board that, in contravention of a number of regulatory standards including 10 C.F.R. § 50.47(b)(1) and Criterion II.A of NUREG-0654/FEMA-REP-1 (NUREG-0654),⁶ the NHRERP planning process had failed to provide for adequate personnel resources from the State of New Hampshire and local governments to respond in the event of an emergency.⁷ The Licensing Board found these charges to be without merit.⁸ Before us, intervenors NECNP and SAPL have raised a variety of concerns relative to the Board's determination, including challenges to its findings on the adequacy of the survey process utilized to identify the response personnel resources, the need for findings by the Federal Emergency Management Agency (FEMA) on personnel resource adequacy prior to any Board hearing and decision on the subject, and the need for additional response personnel resources to relieve local workers who will require replacement under the plan's radiation exposure limitations.⁹ Applicants and the staff urge that the Licensing Board's findings be affirmed on all counts.¹⁰ In each instance, we find intervenors' complaints unpersuasive.

In response to FEMA concerns about whether there were sufficient State and local personnel resources for implementing the NHRERP and with the aid of State emergency planning officials, applicants' planning personnel conducted a survey intended to demonstrate staffing capability.¹¹ This survey process — the results of which ultimately were recorded in a document entitled the "Summary

⁴31 NRC 197 (1990), *petition for review pending sub nom. Massachusetts v. NRC*, No. 90-1132 (D.C. Cir. filed Mar. 7, 1990).

⁵42 U.S.C. § 2232.

⁶NUREG-0654/FEMA-REP-1 (Rev. 1), "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" (Nov. 1980).

⁷See LBP-88-32, 28 NRC at 678.

⁸*Id.* at 691.

⁹New England Coalition on Nuclear Pollution's Brief in Support of Intervenors' Appeal (Mar. 24, 1989) at 15-26 [hereinafter NECNP Brief]; Seacoast Anti-Pollution League's Brief on Appeal (Mar. 21, 1989) at 28-34 [hereinafter SAPL Brief].

¹⁰Brief of Applicants-Appellees (Apr. 24, 1989) at 34-38 [hereinafter Applicants Brief]; NRC Staff's Brief in Response to Intervenor Appeals (June 5, 1989) at 10-20 [hereinafter NRC Staff Brief].

¹¹Tr. 3191-92.

of Personnel Resource Assessment for the [NHRERP]" (SPRA) — was intended to provide an evaluation of personnel resources required to fulfill both the State and local emergency response duties.¹² Included is a resource appraisal for the six (out of seventeen) communities in the New Hampshire EPZ — Hampton, South Hampton, Hampton Falls, Kensington, Rye, and North Hampton — that declined to participate in emergency planning efforts.¹³

As part of that process, the planners' initial efforts were directed to identifying, by position and functional responsibility, all tasks that are required to be performed in fulfilling State or local emergency response functions.¹⁴ Included were those duties for which two twelve-hour shifts are necessary to provide the twenty-four hour operational capability in accordance with planning guidance.¹⁵ This "walk-through," as it was termed by the parties, was accomplished by having emergency planners review the provisions of the NHRERP for all State agencies and local governments with respect to each emergency response function to ensure that all assigned primary and secondary responsibilities were addressed.¹⁶ Thereafter, the planners sought to identify every task required to carry out these responsibilities by agency, position, and function.¹⁷

Using the walk-through information, the planners then endeavored to identify "available" personnel resources to fill the necessary emergency response positions.¹⁸ For municipal positions within the eleven communities participating in emergency planning, this was done by analyzing background data sources (including town plan appendices, town annual reports, and records of the New Hampshire State Police and Fire Standards and Training Commissions, the Bureau of Emergency Medical Service, and the New Hampshire Fireman's Association) and by conducting survey interviews with various local municipal personnel (including town selectmen, town managers, civil defense directors, police and fire chiefs, and health officials).¹⁹ For the six communities that decided not to participate, the background data sources were utilized (generally without conducting a survey interview with local officials) to construct an organization chart illustrating how municipal personnel might be assigned to response positions.²⁰ In addition, key emergency planning responsibilities in these nonparticipating communities were catalogued, and State personnel who would fulfill those responsibilities in the event there was no local participation were

¹² See Applicants' Direct Testimony No. 3 (Personnel Resources), fol. Tr. 3228, at 3-10. See also Applicants' Exhs. 1 & 1-A (Summary of Personnel Resource Assessment for the [NHRERP]).

¹³ Applicants' Exh. 1, at 2-4 to -33.

¹⁴ Applicants' Direct Testimony No. 3, at 3, 9.

¹⁵ *Id.* at 3-4, 9; Tr. 3290-93. See generally ALAB-924, 30 NRC at 362 n.125.

¹⁶ Applicants' Direct Testimony No. 3, at 3, 9.

¹⁷ *Ibid.*

¹⁸ *Id.* at 4, 9.

¹⁹ *Id.* at 4.

²⁰ *Id.* at 5.

identified.²¹ For those positions within State agencies, personnel identification assessment efforts consisted primarily of interviews with principal emergency response personnel in each State agency with assigned responsibilities under the NHRERP, supplemented by a review of agency resource appendices in volumes 4, 4A, and 4B of the NHRERP and currently available State directories and other public records.²²

A. Relying principally upon the direct and rebuttal testimony of professional personnel resource planner Clifford J. Earl,²³ intervenors NECNP and SAPL renew before us their assertions, which the Licensing Board rejected, that various critical deficiencies existed in the survey process. According to intervenors, these include failure (1) to provide a definition of the term “available,” and (2) to organize and supervise the survey process properly, which in turn resulted in other deficiencies in the survey. In addition, intervenor SAPL argues that the survey is insufficient to address the adequacy of response personnel resources in communities that have declined to participate in emergency planning.

1. Intervenors allege that a central shortcoming in the survey process is the failure to define, or the incorrect definition of, which State and local personnel are “available” to participate in emergency planning matters. In testimony before the Licensing Board, planning personnel declared that, for purposes of the survey and emergency response planning, individuals were considered to be “available” to provide services if they were within an organization or “pool” that was a candidate to perform a particular function.²⁴ For example, if a function was to be undertaken by fire department employees in a particular community, then the entire fire department staff generally was considered to be available as response personnel.²⁵ Intervenors, on the other hand, assert that availability of response personnel for planning purposes should be defined to include two components: (1) “temporal” availability, based upon each individual’s ability to participate on a twenty-four hour basis, taking into account such factors as transportation resources, other responsibilities during off-duty hours, and the time required to get from home or work to an assigned emergency response post, and (2) “volitional” availability, based upon each individual’s willingness to participate.²⁶ In its decision, the Licensing Board endorsed the “pool” concept utilized by planning officials in preparing the survey, stating that

²¹ Applicants’ Exh. 1, at 3-3, 3-5 to -6.

²² Applicants’ Direct Testimony No. 3, at 9-10.

²³ Testimony of Clifford J. Earl Regarding Contentions NHLP-2, SAPL-8, SAPL-8A, and [TOH] Revised Contentions IV and VI, fol. Tr. 3776; Rebuttal Testimony of Clifford J. Earl Regarding Contentions NHLP-2, SAPL-8, SAPL-8A, and [TOH] Revised Contentions IV and VI, fol. Tr. 8915 [hereinafter Earl Rebuttal Testimony].

²⁴ Tr. 3254, 3314, 3317, 3323, 3332.

²⁵ Tr. 3316. Planning officials indicated that, as part of the survey process, they did attempt to identify those individuals whose other job responsibilities might result in double-counting, such as a full-time fireman in one community who also serves as a volunteer fireman in another community. Tr. 3316-17.

²⁶ See NECNP Brief at 18; SAPL Brief at 29.

"[t]he issue of whether and when people will be there is an issue of planning and implementation, not personnel resources."²⁷ We find no error in the Board's conclusion in this regard.

With respect to the issue of temporal availability, as the Licensing Board noted, it is clear that no emergency respondent will be available at all times.²⁸ Health problems, business or pleasure travel outside the Seabrook area, and a variety of other factors could make an individual unavailable for a portion or all of the time of an emergency response. This, however, does not invalidate the "pool" concept upon which the SPRA is based. Rather, in viewing the matter as one of "planning and implementation," it is apparent that various measures are incorporated into the NHRERP planning scheme — e.g., cross-training of individuals within some personnel resource pools,²⁹ overstaffing for various emergency response functions,³⁰ and early mobilization of certain personnel³¹ — that help ensure that the absence or delayed availability of particular individuals will not significantly impair emergency planning efforts.³² Moreover, as FEMA witnesses observed before the Licensing Board, a judgment about the effect of "temporal" availability upon emergency response generally would be made in reviewing plan implementation, i.e., in the context of a full-scale exercise during which state and local personnel must be mobilized to a degree sufficient to verify response capability.³³

Similarly, for the matter of "volitional" availability, FEMA witnesses stated that it would not be that agency's normal practice to have state emergency planning officials inquire as to who within the various state and local response personnel "pools" is "willing" to participate in emergency planning.³⁴ Rather, the agency would expect state planners generally would address this issue of "availability" through a gradual process of staff identification, including monitoring of participation in training sessions and drills, with the ultimate

²⁷ LBP-88-32, 28 NRC at 681-82.

²⁸ *Id.* at 682.

²⁹ Tr. 3325-27. For instance, in many local fire departments (which generally provide between one-third and three-quarters of the personnel for the response personnel pool for participating municipalities, *see, e.g.*, Applicants' Exh. 1, at 2-58, 2-70, 2-74), individuals within that organization are being cross-trained so that they can be assigned a variety of tasks as they report for duty during an emergency. *See* Tr. 3326-27.

³⁰ Applicants' Exh. 1, at 3-7.

³¹ *See* Tr. 3492 (State incident field office staffed at Alert stage); Tr. 4099-100 (State police traffic control staffing at Alert stage).

³² On the matter of temporal availability, intervenors NECNP and SAPL also raise concerns about the ability of response organizations (i.e., the New Hampshire State Police and the National Guard) to have personnel in place to provide an "immediate" response to a fast-breaking accident sequence. NECNP Brief at 8, 18 n.6; SAPL Brief at 31-32. As we discuss more fully in responding to a similar challenge to "availability" in relation to time estimates for evacuation, these concerns have been considered and adequately addressed in the planning basis for the NHRERP. *See infra* pp. 412-13.

³³ Tr. 4072; *see* NUREG-0654 Criterion II.N.1.b.

³⁴ Tr. 4087-88.

FEMA evaluation on the matter being made "during the course of an exercise in terms of people turning out."³⁵

The Licensing Board's (and FEMA's) conclusion that any determination about the temporal and volitional "availability" of response personnel is more properly addressed and evaluated as part of the "planning" and "implementation" process, including the full-scale exercise, is a reasonable one that is not at odds with any existing regulatory requirements.³⁶ Consequently, in the absence of any compelling showing by intervenors that significant segments of those in the response personnel "pools" being relied upon as a principal planning basis to establish personnel resources adequacy are for one reason or another likely to be "unavailable," which has not been made in this instance,³⁷ we find no need

³⁵Tr. 4074; see Tr. 4055, 4088, 4096-97.

³⁶Citing 10 C.F.R. § 50.47(b)(1), *id.* Part 50, App. E, § IV.D.3, and Criterion IIA.4 of NUREG-0654, intervenors assert that a general showing of "availability," as they define it, is mandated by regulations and planning guidance. NECNP Brief at 15-18; SAPL Brief at 32-33. We find no basis in these provisions for such a requirement.

The declaration in section 50.47(b)(1) that each principal response organization must have "staff to respond and to augment its initial response on a continuous basis" and the guidance in NUREG-0654 Criterion IIA.4 that "[e]ach principal organization shall be capable of continuous (24-hour) operations for a protracted period" do not require or suggest any particular time by which a response organization must be "fully staffed" or any particular method by which staffing adequacy must be demonstrated. Similarly, section IV.D.3 of Appendix E to 10 C.F.R. Part 50, while mandating that the licensee must have the capability to notify state and local officials within 15 minutes of declaring an emergency and that the capability must exist to notify the public of a situation requiring urgent action within 15 minutes of notifying state and local officials, does not require any particular time for full staffing or any particular method by which staffing adequacy must be demonstrated. Indeed, this requirement may well provide for a public notification capability that will in some instances exceed the ability of all response personnel to be in place. If public notification and activation of an emergency response will precede complete mobilization, however, that could be a factor to be weighed in determining what response action is appropriate. See *infra* pp. 412-13.

³⁷Intervenor SAPL does attempt to make a showing in this regard based upon two instances in which State officials conducted surveys intended to provide information on the availability of personnel from the State Department of Health and Human Services (HHS) to respond to emergency situations, including an accident at Seabrook. SAPL Brief at 34, 45-46. Whether considered separately or together, however, these situations fail to provide a basis for drawing a negative inference about *all* response personnel sufficient to mandate additional inquiry into the issue of "availability," as intervenors desire.

SAPL first points to a questionnaire circulated to employees of the HHS Division of Public Health Services (PHS) to gauge whether enough PHS employees would be available to perform Seabrook-related emergency response duties in the State emergency operations center, the State information field office, and in evacuee reception centers. Some employees did respond to the survey by indicating they declined to participate in emergency response activities; nonetheless, enough workers stated they would participate to fulfill the division's staffing responsibilities. See Tr. 3410-11. This example thus provides no support for intervenor's position.

Likewise unavailing is SAPL's reliance on the results of an additional survey of employees in the district offices of several HHS divisions other than PHS. This survey was intended to identify the reasons why more of the approximately 645 employees in the district offices were not volunteering to participate in the Emergency Service Units (ESUs) that provide State response support in emergency situations generally, including managing evacuation reception centers for Seabrook. Tr. 4780-81, 4797. Survey results indicated that approximately 43% of those responding were not willing to provide emergency assistance as part of an ESU, with approximately 28% of that group giving the reason for their nonparticipation as possible involvement in Seabrook emergency response activities. Tr. 4784-85; see SAPL Exhs. 3-5. Putting aside the fact that the Licensing Board determined, and we have agreed, that SAPL's particular concern regarding a shortfall of HHS volunteers as it impacts on the adequacy of reception center operations is effectively addressed by maintaining rosters of available individuals, LBP-88-32, 28 NRC at 719-20, *aff'd*, ALAB-924, 30 NRC at 361 n.121, and the fact that the 43% nonparticipation

(Continued)

for NHRERP planners to have made a separate "availability" showing as part of the process undertaken to identify those "pools."³⁸

2. In addition to rejecting intervenors' arguments about "availability," as part of the survey process, the Licensing Board's finding regarding response personnel resources reflects a judgment that, notwithstanding intervenors' challenges, the survey was otherwise adequate to identify the personnel resources (i.e., the "pools") needed to carry out emergency planning functions. Before us, intervenors again press their position that this is not, in fact, the case.

Principally on the basis of Mr. Earl's testimony, intervenors assert that the survey's methodology generally was inadequate, focusing particularly on what they contend was deficient supervision and coordination.³⁹ As the Licensing Board noted, however, the evidentiary hearing record supports the conclusion that the survey process was properly designed and supervised and that it provided

figure was never statistically validated, when this figure is applied to the entire complement of approximately 980 HHS workers from the district and headquarters offices of the divisions involved, all but a few of which could be called upon in a Seabrook emergency response, Tr. 4802-04, there still would be in excess of 500 employees that could be expected to participate. This is more than sufficient to meet the ESU planning basis requirement of 430 responding employees. See Applicants' Exh. 1-A.

³⁸ It may well be that in specific instances, the response role played by a particular individual or group will give additional import to concerns about planning for the "availability" of those who will fill those roles. See *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit No. 1), CLI-83-22, 18 NRC 299, 302, 307-08 (1983) (despite proposed compensatory measures, licensee proposal not to have fully activated Emergency Operations Facility (EOF) within one hour of site emergency determination due to four-hour travel time necessary for Emergency Support Director to arrive at EOF does not provide same degree of public health and safety protection). See also NUREG-0654 Criterion II.1.8 (appropriate response organizations shall provide for "rapid" assessments of offsite radiological hazards resulting from accident, including equipment and estimated manpower deployment times). Intervenors, however, have not raised such particularized concerns in challenging response personnel resource adequacy under the NHRERP.

³⁹ Relying on the previously mentioned testimony of Mr. Earl, intervenors also contend that the survey was inadequate because there was a failure to calculate properly the workload for the response positions. A central reason given is the failure to weigh "timing" considerations in setting workloads.

In a variation on their arguments about the importance of "temporal" availability, referring particularly to the arrival of traffic control personnel at their posts during an evacuation, intervenors suggest that the survey was inadequate because, in determining how many people were needed to do a task, one must take into account when particular individuals will arrive to perform those duties. See NECNP Brief at 7-8, 19-20; SAPL Brief at 29, 31-32. For the reasons stated in our discussion concerning "availability" as a factor in time estimates for evacuations, see *infra* pp. 412-13, we find these assertions unpersuasive in this context as well.

In addition, declaring that the applicants' testimony concerning the walk-through process indicated only that it involved a "reading of the procedure," NECNP maintains that this would not reveal enough information about the procedure and the time necessary to carry out the procedure, thereby adding to the uncertainty over how many people were required to perform that task. NECNP Brief at 7, 20 n.8. As the Licensing Board noted, however, applicants' witness Anthony Callendrello testified that there was in fact more, including "a reading of the procedure, an analysis of each step, and a determination against objective criteria as to whether there was one person, more than one person [*sic*], whatever the number needed to perform this step." LBP-88-32, 28 NRC at 683 (quoting Tr. 3278). More to the point, and contrary to intervenor's assumption, in conducting the walk-through, planners need not undertake a "mini" emergency drill for each response procedure. The fact that emergency planning professionals making the analysis may have made certain assumptions about response actions (such as how long telephone calling procedures would take), rather than actually conducting and timing each of the activities, does not present any basis for declaring their analysis inadequate. This is particularly so in the face of intervenors' failure to present any convincing evidence that any specific assumptions were substantially flawed. Moreover, as with "availability" issues, it seems apparent that a full-scale emergency exercise generally will verify (or show the inadequacy of) many of the assumptions that have been made.

accurate data.⁴⁰ In contrast, despite obtaining extensive discovery relating to the survey and an opportunity to present witnesses, intervenors' evidence (in the form of Mr. Earl's testimony) was wholly lacking in any convincing evidence of actual deficiencies arising from the process.

This lack of any specific, meaningful evidence of deficiencies is epitomized by the example from Mr. Earl's testimony, highlighted by intervenor NECNP in its brief,⁴¹ that apparently was posited to establish that emergency planners were not provided with proper criteria for defining the type of information they were to obtain. Mr. Earl refers to Question 2 on the survey form used for interviewing local officials to determine local personnel needs, which directs the interviewer to:

Ensure there are primaries and alternates for each [Emergency Operations Center] position designated in the plan as 24 hour staffing. Attach a list/roster identifying positions which require primary and alternate staffing. (Interviewer to obtain 24 hour staffing information. Refer to Section III, Selectman's Emergency Preparedness Responsibilities and Appendix A.)⁴²

According to Mr. Earl, this instruction was deficient because it failed to indicate how the interviewer should obtain twenty-four hour staffing information, how he or she should determine the staffing needs for each position, or what it means to "ensure" the existence of primaries and alternates for each position.⁴³

Review of the referenced section of the NHRERP for each particular locality makes it apparent exactly what is expected. The "selectman's" portion of section III, found in subpart B, includes a listing of the positions for which there is to be a "primary and alternate," and Appendix A gives a call list of the individuals who are to fill these positions.⁴⁴ To follow this instruction, therefore, the interviewer merely had to ensure that in Appendix A there is an individual listed as a primary or alternate for each designated position in subpart B and then prepare a roster from this information. Moreover, once the results from this and other survey questions were assembled, they were reviewed for consistency and accuracy before being utilized in the SPRA.⁴⁵ In this case, the survey process resulted in a table for each municipality designating the twenty-four hour staffing positions,⁴⁶ the accuracy of which have not been specifically challenged before

⁴⁰ LBP-88-32, 28 NRC at 684.

⁴¹ NECNP Brief at 11.

⁴² Earl Rebuttal Testimony at 22-23.

⁴³ *Ibid.*

⁴⁴ E.g., NHRERP (Town of Seabrook), Vol. 16, at III-2, A-1.

⁴⁵ See Tr. 3240-43, 3246-48, 3290-93.

⁴⁶ E.g., Applicants' Exh. 1, at 2-73 (Figure 2.3-10, Seabrook Emergency Response Organization)

us. Accordingly, we fail to see how Mr. Earl's concern is illustrative of any deficiency in the survey process.⁴⁷

As the Licensing Board observed, Mr. Earl's testimony is more a statement of how the survey might have been done differently (and, in Mr. Earl's opinion, better) than an attempt to address the more pertinent issue of how the process that was used resulted in data that are insufficient or inaccurate.⁴⁸ The Board properly concluded that the testimony of Mr. Earl was inadequate to establish material failings in the survey process.⁴⁹

3. The other major intervenor challenge to the survey's validity is based upon the testimony of police and other local officials from several of the nonparticipating communities.⁵⁰ These officials testified that the planning basis for these local communities, devised without their cooperation or input, failed

⁴⁷ Also unpersuasive in this regard is SAPL's assertion, based upon the testimony of William Renz, applicants' consultant who had responsibility for preparation of the assessment summary, that the survey process was deficient because of a purported failure of management personnel to interview systematically those individuals who collected the data and to establish common terminology for use by survey officials as they conducted their interviews with local officials to get input on community response personnel. SAPL Brief at 30. Like the Licensing Board, *see* LBP-88-32, 28 NRC at 684, we find such complaints unavailing in light of the overall record support for the efficacy of the survey process and intervenor's failure to present any firm evidence establishing how these alleged operational deficiencies produced incomplete or incorrect results.

We also do not agree with SAPL's complaint that the survey process was deficient because, in assigning a response task, no consideration was given to a person's competence to do that task. SAPL Brief at 30. As senior planning personnel testified, in certain instances when it was necessary because of the response duties involved, individual assignments were made on the basis of the person's present duties and responsibilities; in other instances, individuals within a particular personnel pool would be cross-trained to fulfill any of a number of duties that were assigned to the pool. *See* Tr. 3325-27.

⁴⁸ LBP-88-32, 28 NRC at 684.

⁴⁹ Intervenor NECNP also takes umbrage at the Licensing Board's refusal to credit Mr. Earl's testimony on personnel resource planning based, in part, on the ground that his expertise and experience were not in the field of emergency planning. NECNP Brief at 21-22. Mr. Earl's failure to back up his discourse on the weaknesses of the survey with any specific evidence of inaccuracies resulting from the process is, to our mind, more crippling to intervenor's position than his lack of specific emergency planning experience. Nonetheless, it is apparent that, especially when compared to planners Anthony Callendrello, Paul Frechette, and William Renz, who had principal responsibility for the resource assessment program, including the survey process, Tr. 3198, 3203-04, 3238, Mr. Earl is lacking in that respect. *Compare* Qualifications of Anthony M. Callendrello, fol. Tr. 2790; Qualifications of Paul R. Frechette, Jr., fol. Tr. 2791; Resume of William F. Renz, fol. Tr. 3185 with Resume of Clifford J. Earl, fol. Tr. 3776.

Although NECNP's attempts on appeal to bolster Mr. Earl's expertise by now arguing that he had crisis management experience that would have been revealed if he had been cross-examined, NECNP Brief at 21 n.9, we find this assertion frivolous. We are not aware of any civil law principle that permits a party, having failed to put forth allegedly relevant information on direct examination, to claim that information nonetheless should be considered because the information was not elicited during cross-examination.

Finally, we reject SAPL's assertion that purported deficiencies relating to letters of agreement also strengthen Mr. Earl's testimony. SAPL Brief at 29. In ALAB-924, 30 NRC at 345, we found those allegations were without substance.

⁵⁰ Corrected Prefiled Testimony of Dona Janetos on Behalf of [TOH] Regarding TOH Revised Contentions III, IV, VI, fol. Tr. 3597 [hereinafter Janetos Testimony]; Corrected Prefiled Testimony of Sergeant Victor DeMarco and Detective William Lally on Behalf of [TOH] Regarding TOH Revised Contentions III, IV, VI, fol. Tr. 3659 [hereinafter DeMarco and Lally Testimony]; [SAPL]'s Testimony of Suzanne Breiseth on SAPL Contentions 8 and 8A Relative to the Town of Hampton Falls, fol. Tr. 3739; [SAPL]'s Testimony of Andrew Christie, Jr., on SAPL Contentions 8, 8A, 16, 31 and 37 Relative to the Town of Hampton Falls, fol. Tr. 3740; Prefiled Testimony

(Continued)

to reflect adequate personnel resources. SAPL asserts that the Licensing Board erred in failing to credit properly the testimony of these local officials.⁵¹ We find these arguments without merit as well.⁵²

On the matter of adequate resources for local emergency response organizations in nonparticipating communities, the issues upon which intervenor would have us focus are, in light of the record here, of no relevance to the adequacy of emergency planning. While these witnesses sought to call into question some of the determinations made by planners in establishing the numbers and assignments for local response personnel in those municipalities, intervenors failed to present any evidence effectively countering applicants' showing, embodied in the SPRA,⁵³ that there are adequate State personnel available to fulfill the key emergency response duties within the nonparticipating communities.⁵⁴ Thus, intervenor's complaints fail to negate the Licensing Board's finding that there will be adequate personnel to respond in the nonparticipating communities.⁵⁵

B.1. Finally on the issue of response personnel adequacy, intervenors make two arguments that can be dealt with in short order. First, intervenor NECNP asserts that the Licensing Board violated the precepts of 10 C.F.R. § 50.47(a)(2) by holding hearings and rendering a judgment concerning the adequacy of response personnel resources under the NHRERP prior to submission of planning

of Walter F. Shivik on [SAPL]'s Contentions 8 and 8A and Town of South Hampton Contentions 2, 3 and 8 Relative to the Town of South Hampton, fol. Tr. 3780; Direct Testimony of Sandra Fowler Mitchell on SAPL Contentions 8 and 8A and Town of Kensington Contention 1 Relative to the Town of Kensington, fol. Tr. 3805 [hereinafter Mitchell Testimony]; Amended [SAPL] Testimony of David P. McDonald on SAPL Contentions 8 and 8A Relative to the Town of Rye, fol. Tr. 3867; Testimony of Richard W. Ingram on SAPL Contentions 8 and 8A Relative to the Town of North Hampton, fol. Tr. 4479.

⁵¹ SAPL Brief at 31.

⁵² In line with intervenors' general concern about "availability" of response personnel, several of these officials also suggested that it would take too long for State resources, particularly State police, to respond to make up for inadequacies resulting from local nonparticipation. See *id.* at 31-32. Our response to a similar concern with respect to estimates of evacuation times addresses this matter as well. See *infra* pp. 412-13.

Local officials also testified that resource deficiencies would result because some local emergency response personnel would not respond. See SAPL Brief at 58. We deal with the issue of emergency worker response *infra* under the heading of "Human Behavior in Emergencies."

⁵³ See Applicants' Exh. 1, § 3.

⁵⁴ By way of example, we note the testimony of one local witness whose assertion that there would be personnel deficiencies in an emergency was apparently based upon a misapprehension of the number of personnel required for 24-hour manning. Compare Mitchell Testimony at 2 with Applicants' Exh. 1, at 2-7 to -8.

⁵⁵ In this regard, we agree with the Licensing Board that the complaints lodged by local officials about the SPRA's provisions for local personnel response seem largely to arise from matters directly attributable to their own nonparticipation, rather than to fundamental deficiencies in the survey process. See LBP-88-32, 28 NRC at 687-88. For instance, the potency of one town official's complaint that the duties assigned to particular response positions were too burdensome is substantially diminished by the apparent lack of effort on her part to bring the matter to the attention of State officials so the alleged deficiencies could be corrected. Compare Janetos Testimony at 4-5 with Tr. 3342-47. The same is true for the complaints of several local police officers about the use of local part-time special officers based on their belief that these special officers did not have the proper skills. See DeMarco and Lally Testimony at 12-13. As FEMA witnesses stated, with proper training these individuals could perform the assigned responsibilities, FEMA Pre-filed Testimony, fol. Tr. 4051, at 45, making this a matter that undoubtedly could be rectified readily if the community were to participate in emergency planning efforts after all.

information sufficient to allow FEMA to make findings concerning that issue. Specifically, NECNP contends that any Board consideration of the matter of response personnel resources adequacy had to await FEMA review of several items, including the SPRA and FEMA's "primary tool for evaluating the adequacy of personnel resources," the full-scale exercise.⁵⁶

Previously, in response to a similar assertion in the *Zimmer* proceeding, we observed that "[s]ection 50.47(a)(2) does not require deferment of any hearing on State and local government emergency response plans to await FEMA's issuance of final findings on those plans. Rather, what that [s]ection contemplates is a licensing decision based on the best available current information on emergency preparedness."⁵⁷ In *Zimmer*, we also noted that it is for the Licensing Board to judge at exactly what stage a plan is sufficiently developed to allow for hearings and a decision, taking into account the evidence on the current state of the plan.⁵⁸

While FEMA officials had not had an opportunity to review the personnel response survey at the time of the hearing and indicated at the hearing that they could not make any final adequacy determination until New Hampshire had incorporated the survey as part of its planning basis, they did declare that the survey, in and of itself, represented "substantial progress" towards remedying FEMA's previous concerns about response personnel resource inadequacies.⁵⁹ Given this FEMA recognition of the central role of the survey in addressing its concerns, we cannot say that the Licensing Board abused its discretion in proceeding with hearings on the issue and in making findings without awaiting further FEMA review of the matter.⁶⁰

⁵⁶NECNP Brief at 22-24.

⁵⁷*Cincinnati Gas & Electric Co.* (William H. Zimmer Nuclear Power Station, Unit No. 1), ALAB-727, 17 NRC 760, 775 (1983) (citation and footnote omitted). See also *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-776, 19 NRC 1373, 1379 (1984); *Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC 346, 379-80 (1983).

In *Zimmer*, we also expressed concern that an interpretation of section 50.47(a)(2) requiring a final FEMA finding would be at odds with the then-existing FEMA/NRC Memorandum of Understanding, which provided that FEMA will offer its preliminary views on the state of offsite emergency preparedness based on the plans currently available to FEMA. 17 NRC at 775 & n.21 (citing 45 Fed. Reg. 82,713 (1980)). Although that memorandum of understanding subsequently was revised, see 50 Fed. Reg. 15,485 (1985), we see nothing in the amended version to change our conclusion in that regard.

⁵⁸*Zimmer*, 17 NRC at 775.

⁵⁹Tr. 4098, 4109, 4166.

⁶⁰We fail to see why the Board's findings relative to the personnel resources adequacy had to await a FEMA finding on the results of a full-scale exercise, which in this proceeding was subject to challenge in a later hearing. See LBP-89-32, 30 NRC 375, 615-50 (1989), *appeals pending*. Moreover, as applicants and the staff point out, Applicants Brief at 37; NRC Staff Brief at 15 n.14, FEMA did make final findings of adequacy on this issue, albeit after the conclusion of the hearing on the NHRERP. See Applicants' Exh. 43D, at 30-31 (FEMA Review and Evaluation of the State of New Hampshire Radiological Emergency Response Plan for Seabrook Station (Dec. 1988)). Although the option was open to them, see *Zimmer*, 17 NRC at 776, none of the intervenors sought at that time to reopen the record or to file late contentions regarding the adequacy of FEMA's findings.

2. The second matter, raised by intervenor SAPL, concerns the adequacy of replacement workers for local personnel who may be withdrawn from emergency response activities because they have reached radiation exposure limits. Under the NHRERP, the specified limit for local emergency workers is 5 roentgens (R) rather than the 25R limit allowed by the Environmental Protection Agency's Protective Action Guides (PAGs). This 5R limit for local emergency workers also is the same as the highest value for whole body dose established by the PAGs for the general population.⁶¹ SAPL asserts that the 5R exposure limit "could be delivered to a large number of the 1300 State and local emergency workers relatively quickly under certain scenarios," thereby resulting in severe personnel shortages because of a lack of an adequate backup pool of trained workers.⁶²

SAPL's argument fails to acknowledge several important points concerning the planning basis upon which the 5R exposure level rests. Management of emergency worker exposure based upon tracking and reporting procedures incorporated in the NHRERP would include rotation of assignments among local emergency response workers or assignment removal for any individual whose radiation exposures indicate a trend toward the 5R limit.⁶³ It is not expected, however, that this generally will be necessary. Because local emergency worker exposure limits fall within the range established by the PAGs for the general public and because local response personnel have no emergency assignments to perform after protective actions for the public have been completed, these workers would take the same protective actions at the same time as the last of the general public, thereby restricting their exposure to the same level as that incurred by the public.⁶⁴ Those post-protective action activities that must be undertaken, such as access control to excluded areas, field monitoring, plume tracking, and environmental sample collection are to be undertaken by State emergency workers, who under the NHRERP are subject to the specified emergency worker PAG of 25R.⁶⁵ Through this mechanism, the State's goal of limiting local worker exposure to that of the general public is to be met, although it is not intended that local emergency responsibilities will be allowed to go unmet prior to the public's completion of any prescribed protective actions.⁶⁶ In the absence of any convincing showing by intervenors contravening this planning basis, the Licensing Board properly concluded that, even with the lower local worker exposure levels, there will be adequate State and local response personnel available to carry out their duties in the event of a radiological emergency.

⁶¹ Applicants' Direct Testimony No. 3, at 14-15.

⁶² SAPL Brief at 33.

⁶³ Applicants' Direct Testimony No. 3, at 14.

⁶⁴ *Id.* at 15-16.

⁶⁵ *Id.* at 15.

⁶⁶ *Id.* at 16.

II. HUMAN BEHAVIOR IN EMERGENCIES

Again relying upon the Commission's criteria relative to adequate emergency response personnel resources, as well as its requirements and guidance regarding such matters as the preparation of protective action guidelines, before the Licensing Board intervenors challenged the NHRERP's purported failure to consider and to compensate adequately for what they assert will be nonresponsive or disruptive behavior by emergency personnel and others.⁶⁷ The Licensing Board found these challenges to be meritless. The Board's decision in this regard is now contested by the MassAG, SAPL, and TOH. Their concerns center on two areas: (1) whether behavior by the general public, especially automobile drivers, will disrupt significantly the evacuation process; and (2) whether those with emergency response duties, particularly school teachers, will respond to fulfill their responsibilities in the event of a radiological emergency at Seabrook. With respect to the first matter, we find that the adjudicatory record supports the Licensing Board's finding that behavior by the general public will not prevent an adequate emergency response under the NHRERP. Our review of the record relevant to the second concern has led us to conclude that those expected to provide assistance under the NHRERP, including school teachers, will respond to perform those duties necessary to ensure an adequate emergency response.

A. In its December 1988 decision, the Licensing Board concluded that, in the event of a radiological emergency at the Seabrook Station, panic and disruptive behavior on the part of the general public, and particularly on the part of those using automobiles as a means of evacuation transportation, will not seriously impede response to protective action recommendations.⁶⁸ Intervenors MassAG and SAPL maintain that significant aberrant behavior will occur and that planners have failed adequately to factor it into emergency planning efforts with regard to matters such as evacuation route blockage and providing for a sufficient number of traffic control personnel on area highways.⁶⁹

As support for their position that such behavior will be a significant factor, intervenors cite testimony by local police officers, town officials, and residents describing disorderly driver behavior, particularly during the summer tourist season when traffic is heavy, that has included refusal to follow established traffic patterns and driving on the roadway shoulder or in oncoming lanes.⁷⁰ Also, referencing testimony from these witnesses concerning traffic blockages and delays that have arisen in the past from accidents, breakdowns, and stalled

⁶⁷ See Applicants' Direct Testimony No. 7 (Evacuation Time Estimate and Human Behavior in Emergencies), fol. Tr. 5622, at 2-9.

⁶⁸ LBP-88-32, 28 NRC at 747, 749-50.

⁶⁹ Massachusetts Attorney General's Brief on Appeal (Mar. 24, 1989) at 4-5, 20-24 [hereinafter MassAG Brief]; SAPL Brief at 62-63.

⁷⁰ MassAG Brief at 21-24; SAPL Brief at 62-63.

vehicles during heavy summer traffic periods, intervenors assert that the same types of behavior and problems are likely to arise (and be much worse) during a summertime evacuation from the beach area. These problems, in conjunction with disorderly driver behavior, assertedly will hinder the flow of traffic out of the area and the progress of response personnel and emergency vehicles (e.g., tow trucks) into the area so as to render effective emergency response an impossibility under the NHRERP.

As additional support for the proposition that disorderly behavior will be a significant factor in an evacuation, the MassAG relies upon the "beach blanket" survey of over 580 beachgoers conducted for intervenors by sociologist Dr. Albert E. Luloff.⁷¹ In this regard, the MassAG notes that the evidence before the Licensing Board concerning the survey showed that slightly more than a fifth of the surveyed beachgoers indicated they would not follow a policeman's instructions on which evacuation routes to use; another twenty percent said compliance would depend on the circumstances and the instructions; and nearly forty percent indicated they would abandon their cars during an evacuation if they had not moved very far after three hours in the vehicle — factors that the MassAG contends demonstrate a grave potential for traffic disorderliness. The MassAG also asserts that the Licensing Board failed to give proper consideration to the testimony of his traffic expert, Dr. Aveshai Ceder, who declared that accident rates in the congested flow traffic conditions during a summertime evacuation would be substantially higher than under normal conditions.⁷² Added to this, intervenor SAPL contends, is the Board's failure to give appropriate weight to the intervenor-sponsored testimony of social geographers Drs. Donald J. Zeigler and James H. Johnson, Jr., and radiologist Dr. Donald L. Herzberg regarding the general population's fear of radiation, and to testimony of local residents concerning the specific conditions at the Seabrook site, including the visibility of the plant to drivers attempting to exit the beach area.⁷³ This testimony, intervenors assert, provided substantial additional support for their position that, notwithstanding the efforts of planners embodied in the NHRERP, there will be panic and aberrant behavior in the event of a radiological emergency that will have the effect of impeding seriously emergency response efforts.

Both the applicants and the NRC staff support the Licensing Board's determination that intervenors' concerns about aberrant, disorderly behavior and its effects are greatly exaggerated. They further assert that, in reaching this conclusion, the Board properly relied upon the testimony of applicants' witness

⁷¹ MassAG Brief at 24.

⁷² *Id.* at 25-26.

⁷³ SAPL Brief at 59-61, 63.

Dr. Dennis S. Mileti, a sociologist and Director of the Hazards Assessment Laboratory at Colorado State University.⁷⁴

As they impact upon human behavior generally, Dr. Mileti declared that emergencies are unique situations.⁷⁵ He also stated that mass emergencies (such as might arise at Seabrook) that could pose a collective threat to an entire community are, in terms of behavioral effect, in a class by themselves.⁷⁶ Although acknowledging that there is some dispute on the issue,⁷⁷ on the basis of empirical research accumulated over three decades regarding public behavior in geological, climatological, and technological emergencies, Dr. Mileti asserted that mass emergencies transform both group and individual goals and objectives in a singular manner:

The first priority for virtually all people who find themselves in such a collective threat situation becomes the collective safety of people and the community at large. People abandon personal forms of identification and personal interests, and they identify with the entire human collective or community that is threatened. This "shift" in the human character has come to be known by many names, for example, the "therapeutic community."

The change or "shift" in the social psychological complexion of social life and human behavior results in a variety of principles that emerge to document the character of emergency behavior. This includes, for example, a dramatic decline in activities and behavior that run counter to the good of the collective and those that are based in individual or personal interests, and a dramatic increase in acts and behavior that bring people together and help one another.⁷⁸

Dr. Mileti also declared that this shift would "undoubtedly" occur in an emergency at the Seabrook plant, as it has occurred in every mass emergency that has been the topic of investigation (and has been evident even in emergencies where it was not specifically investigated).⁷⁹ As a consequence, Dr. Mileti rejected the notion that the "thin-veneer of civilization" is stripped from human behavior during mass emergencies, declaring instead that "[p]ublic behavior is rational, and the emergency goals of helping themselves as well as others take precedence over almost all else; the character of human spirit is strong when faced with mass emergencies and most people rise to the occasion."⁸⁰ He con-

⁷⁴ Applicants Brief at 28-30; NRC Staff Brief at 32-37. Although the applicants presented direct testimony on the issues of evacuation time estimates and human behavior through a panel, Dr. Mileti was solely responsible for the human behavior portion of the testimony. See Tr. 5627, 6304.

⁷⁵ Applicants' Direct Testimony No. 7, at 94.

⁷⁶ *Ibid.*

⁷⁷ Tr. 6382-83, 6414-17.

⁷⁸ Applicants' Direct Testimony No. 7, at 94-95 (citation omitted). See also *id.* at 105. Dr. Mileti further testified that the concept of the "therapeutic community" was not tied to a situation in which the individuals involved knew each other; instead, it would apply in any situation in which people experience a common threat from a rapidly developing external force. Tr. 6438, 9426-27.

⁷⁹ Applicants' Direct Testimony No. 7, at 95.

⁸⁰ *Id.* at 96.

cluded, therefore, that concerns that aberrant driver behavior (e.g., accidents, misuse of incoming lanes and highway shoulders, abandoned vehicles) would create substantial emergency response impediments were unfounded.⁸¹

Dr. Mileti also refused to accept the thesis that the “unique” nature of radiological accidents renders general behavioral principles such as the “therapeutic community” concept inapplicable. Dr. Mileti declared that, while the descriptive accounts of how people respond to emergencies will vary from one emergency to the next, the determinants of human behavior — the reasons why people respond in different ways to an emergency — are transferable across emergency types.⁸² As a result, he was unwilling to accept the argument that, by their very nature, radiological events are so unique that they are subject to a unique set of behavioral precepts.⁸³ This assumption, according to Dr. Mileti, contradicts the basic social science premise that there are knowable reasons and patterns in human behavior that are discoverable through systematic scientific inquiry.⁸⁴

In addition, Dr. Mileti disputed the alternative formulation of the radiological “uniqueness” argument, which recognizes that there are knowable determinants of human behavior but nonetheless concludes that “fear” of radiation based upon its allegedly “unique” characteristics (e.g., invisibility) is so pronounced that human behavior in radiological emergencies will be radically different from behavior in nonradiological emergencies.⁸⁵ Dr. Mileti acknowledged that there are differences between radiological emergencies and nonradiological emergencies, including a difference in the way the public, on average, perceives the risks involved in a radiological emergency.⁸⁶ He declared, however, that these differences do not negate the efficacy or “quality” of the behavioral determinants that have been recognized as applying generally to mass emergency situations.⁸⁷ Instead, the relevance of these differences is in terms of their impact on the “value” or “quantity” that the determinant should be afforded when analyzing its influence on human behavior.⁸⁸ In developing an emergency plan, therefore, what is important in Dr. Mileti’s view is to identify the applicable behavioral determinants, to account for the determinant “values” or “quantities” that are applicable in that emergency situation, and, to the degree they produce

⁸¹ *Id.* at 101-05. By way of example, Dr. Mileti noted that, although the NHRERP calls for the use of tow trucks to remove vehicles that might be stalled or abandoned in the course of an evacuation, it was also reasonable to assume that the public will act on its own to aid in the evacuation by pushing abandoned or stalled vehicles out of the way. *Id.* at 102-03. *See also* Tr. 6396.

⁸² Applicants’ Direct Testimony No. 7, at 137-38.

⁸³ *Id.* at 138; *see* Tr. 6426.

⁸⁴ Applicants’ Direct Testimony No. 7, at 138.

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ *Id.* at 139.

undesirable effects or constraints on emergency response behavior, to take appropriate compensating measures.⁸⁹

In examining the particular issue of the public's perception of risk as invoking detrimental behavioral responses in a radiological emergency, Dr. Mileti noted that for most people in an emergency, "situational perceptions of risk" are a leading determinant of behavioral response.⁹⁰ According to Dr. Mileti, in an emergency people do not undertake a "knee-jerk" response; rather, they react on the basis of their perception of the risk, which is derived from their understanding of the situation as it is being experienced.⁹¹ One element of situational risk perception could be pre-emergency risk perception or "pre-emergency fear" — that is, how the individual perceived the risk prior to the emergency.⁹² In the case of radiological emergencies, Dr. Mileti acknowledged that the data collected so far "would lead one to conclude that in general the mean of hazard risk perception is higher for radiological hazards than for natural hazards."⁹³ In his opinion, however, this "fear" element, as well as others that potentially could impose constraints on sound emergency public response,⁹⁴ can be overcome by utilizing properly what he perceives as the key determinant of situational risk perception formulation — emergency information. In this regard, he declared:

[I]n the context of good emergency planning addressing the key determina[nt] of situational risk perception formation, which is emergency information, we can presume that the EPZ in the future is filled with totally fearless people and/or totally fearful people, or what's most likely the case, a range of people along that continuum, and design the emergency

⁸⁹ *Ibid.*

⁹⁰ Applicants' Direct Testimony No. 7, at 151; Tr. 6340.

⁹¹ Applicant's Direct Testimony No. 7; see Tr. 6324. Thus, according to Dr. Mileti, situational risk perceptions are based upon what people "perceive is the risk and what to do about it, and it is those perceptions which are formed during the emergency that guides their behavior." Tr. 6324.

⁹² Tr. 6339.

⁹³ Tr. 6430.

⁹⁴ In addition to pre-emergency fear, Dr. Mileti noted that age and gender also can play a role in constraining sound situational risk perception. Applicants' Direct Testimony No. 7, at 151-52. According to Dr. Mileti, research findings indicate that, in the face of less-than-desirable emergency information, women are likely to perceive risk to be higher than men and are more likely to engage in protective actions, *id.* at 152, and that older people generally have a harder time coming to believe they are at risk so that, in the face of infrequent warnings, they are less likely to engage in protective actions than younger persons, Tr. 6355-57.

In the context of his "therapeutic community" concept, Dr. Mileti also was unwilling to endorse the notion that "panic" would be a critical factor in public response to a radiological emergency. He described panic as "persons so concerned about themselves that they step on the persons' [sic] next to them's [sic] face and not notice it in an attempt to flee what they consider to be a life and death situation [in which] if they don't act immediately death will come to pass." Tr. 9411; see Applicants' Rebuttal Testimony No. 5, fol. Tr. 9408, at 3. He declared further that the circumstances in which panic might result, which generally would involve fear for immediate physical survival with escape routes blocked (such as might exist in a major fire at a crowded theater or nightclub), are not present in a radiological emergency because people would be leaving an open geographic space, whether by car or otherwise, and accordingly would not perceive that their escape was "blocked" so as to make death imminent. Applicants' Rebuttal Testimony No. 5, at 3-4; see Tr. 9415-16. Further, although Dr. Mileti acknowledged that "in the world of all human possibilities" some individuals might panic in a radiological emergency, he also stated that he was unaware of any empirical evidence to support the proposition that human behavior in collective emergencies is characterized by panic. Tr. 9413.

information that goes to the public in such a way that we can help the fearless and the fearful come to form accurate risk perceptions in the emergency, and help them make good decisions about how to behave.⁹⁵

Thus, providing “good” emergency information is of central importance in neutralizing factors that might otherwise retard a positive response to an emergency situation by the “therapeutic community.” Further, on the basis of his review of the proposed Emergency Broadcast System (EBS) messages for the NHRERP, which he considered should and would be the focus of public attention in a radiological emergency, Dr. Mileti concluded that these messages, with some modifications, should provide “the listening public a most solid footing from which to base sound decision-making.”⁹⁶

As further support for the proposition that aberrant behavior will not be a factor in an emergency response, both applicants and the staff direct our attention to the testimony of the staff’s traffic expert, Dr. Thomas Urbanik.⁹⁷ Dr. Urbanik’s testimony that there is no evidence that aberrant driver behavior has been a factor in any evacuation in the history of the United States was found by the Licensing Board to be persuasive and uncontradicted by intervenors.⁹⁸

After reviewing the positions of the various parties and the record evidence upon which they rely, we find that the Licensing Board acted reasonably and in accordance with its role as the Commission’s primary fact-finding tribunal in concluding that aberrant behavior on the part of the general public, particularly automobile drivers, will not be a significant impediment in the event of an emergency at Seabrook. Anyone who has ever been behind the wheel of, or been a passenger in, an automobile no doubt can relate a tale of aberrant driver behavior similar to (or worse than) those told by the intervenors’ police and civilian witnesses. Indeed, human nature being what it is, we entertain no illusions that a radiological emergency at Seabrook will engender no “aberrant” behavior on the part of drivers and others.⁹⁹ The critical point, however, and one that Dr. Mileti’s expert testimony on the “therapeutic community” addresses directly, is that such behavior will not be the norm or, indeed, a sufficiently significant consideration so as seriously to impede effective emergency response

⁹⁵Tr. 6342.

⁹⁶Applicants’ Direct Testimony No. 7, at 155-56, 159.

⁹⁷Applicants Brief at 29 (citing Testimony of Dr. Thomas Urbanik II on Behalf of the NRC staff on [TOH] Contention III, and SAPL Contentions 18, 31, 34, and 37, fol. Tr. 7372, at 17; Tr. 7485-86); NRC Staff Brief at 33-34 (same). Dr. Urbanik’s credentials are described in more detail *infra* at note 220.

⁹⁸LBP-88-32, 28 NRC at 746.

⁹⁹In fact, as SAPL notes, SAPL Brief at 62, making reference to his own father, Dr. Mileti recognized it is possible in an emergency evacuation situation that some individuals will engage in individual, rather than community-oriented, behavior. Tr. 9432. He was not, however, willing to characterize this behavior as “probable” or “the behavior of most people.” *Ibid.*

under the NHRERP.¹⁰⁰ This conclusion is further bolstered by Dr. Mileti's testimony concerning the role of emergency information in countering the public's "pre-emergency fear" and the adequacy of the Seabrook emergency information for that purpose, as well as by Dr. Urbanik's un rebutted observation that there is no evidence that aberrant driver behavior has ever played a significant role in an evacuation situation.

To be sure, intervenors have presented testimony challenging these conclusions. Much of their expert evidence is, however, of questionable probative value.¹⁰¹ The same can be said for the testimony of their lay

¹⁰⁰ See Applicants' Rebuttal Testimony No. 2, fol. Tr. 9407, at 2-3; Tr. 9432-33. In this regard, although Dr. Mileti stated that he was not an expert on "driver behavior," contrary to intervenors' assertions, see MassAG Brief at 28; SAPL Brief at 63-64, the Licensing Board's conclusion that he demonstrated sufficient expertise in human behavior in emergency situations to be qualified to testify on driver behavior in such situations was reasonable. Given his expertise, Dr. Mileti's testimony is certainly more probative than that of Dr. Herzberg, whose testimony on disruptive behavior is championed by intervenor SAPL. See SAPL Brief at 59, 60-61. Indeed, the latter's expertise in diagnostic radiology and nuclear medicine and the very limited nature of his experience in radiological emergency response (i.e., as a participant in a medical facility's portion of an emergency drill) provide a wholly insufficient basis for affording Dr. Herzberg's opinions the weight intervenor asserts they should have. See LBP-88-32, 28 NRC at 713.

¹⁰¹ For instance, the validity of Dr. Luloff's "beach blanket survey," upon which the MassAG relies (as does SAPL in the context of its argument concerning reception centers, see SAPL Brief at 50) is problematic. Applicants have identified a number of alleged deficiencies in the survey that they assert were revealed in cross-examination of Dr. Luloff and their own rebuttal testimony challenging the external and internal validity of the survey. See Applicants Brief at 28 n.7 (citing Applicants' Rebuttal Testimony No. 4, fol. Tr. 9155, at 13-15 and Tr. 8220-65 (cross-examination of Dr. Luloff)). Relying on the applicants' discrediting of Dr. Luloff's survey, the Licensing Board thus described the survey as "flawed." LBP-88-32, 28 NRC at 747.

The MassAG challenges this Licensing Board conclusion on the basis of the Board's refusal to permit him to file surrebuttal testimony addressing these criticisms of the survey. MassAG Brief at 27; see Offer of Proof ([MassAG] Proposed Surrebuttal Testimony to Applicants' Rebuttal Testimony Nos. 3 and 4) (Feb. 26, 1988). The admission of surrebuttal testimony is a matter within the discretion of the Board, particularly in instances such as this in which the party sponsoring the testimony reasonably should have anticipated the attack upon its evidence (i.e., the validity of the methodology used in conducting the survey and interpreting its results). See *Cellular Mobile Systems v. FCC*, 782 F.2d 182, 201-02 (D.C. Cir. 1985).

The MassAG also contends that compelling evidence supporting his traffic disorderliness thesis is found in the testimony of his transportation science expert, Dr. Aveshai Cedar. MassAG Brief at 25-26. Dr. Cedar averred that the extent and duration of traffic congestion indicates a high probability, indeed a virtual certainty, that serious, injury-producing accidents will occur during an evacuation. See Corrected Testimony of Aveshai Cedar on Behalf of the [MassAG] on SAPL 31 and TOH III (Evacuation Road Capacities), fol. Tr. 5169, at 24-27; Tr. 5374-75. As applicants and the staff point out, however, Applicants Brief at 24; NRC Staff Brief at 36-37, the MassAG does not acknowledge that he (like SAPL with regard to its reception center argument noted *supra*, see NRC Staff Brief at 29) failed to present this assertion to the Licensing Board. See [MassAG]'s Proposed Findings of Fact and Rulings of Law (May 19, 1988). The MassAG's argument is thus foreclosed by the "settled principle of appellate practice that an appellant is ordinarily precluded from pressing issues or advancing arguments not presented to the trial tribunal." ALAB-924, 30 NRC at 358. Nor do we find any reason here to invoke the narrow "serious substantive issues" exception to this principle. *Ibid*. This is particularly so because Dr. Cedar's conclusions rest in large part on the questionable premise that research concerning traffic incidents at highway construction zones, which would include "work zones" (i.e., an area with barricades, cones, and traffic guides) situated along stretches of open roadway, can be equated profitably with the circumstances that will exist during an evacuation in which the "work zone" (i.e., the traffic control point or access control point, see *infra* note 174) will be at an intersection and in a traffic flow expected to attain, on average, speeds in the vicinity of 10 miles per hour. See Tr. 5338-45, 5362.

witnesses.¹⁰² Nonetheless, even if we accept the crux of intervenors' position that others, including recognized experts, legitimately hold conflicting views about the likelihood and effects of aberrant behavior in a radiological emergency, "the possibility that inconsistent or even contrary inferences could be drawn if the views of the [intervenors'] experts were accepted does not prevent the trial board's findings from being supported by substantial evidence."¹⁰³ In this instance, after giving the Licensing Board's factual findings the probative force they intrinsically command,¹⁰⁴ we find no occasion to gainsay the Board's findings on aberrant behavior by the general public.

B. In addition to challenging planning assumptions concerning the general public's behavior in an emergency, before the Licensing Board intervenors attacked the planning premise that emergency workers would react appropriately in the event of a radiological emergency at Seabrook. Specifically, intervenors asserted that abandonment of emergency response roles by both professionals and volunteers, including law enforcement officials, school personnel, and bus drivers, would create significant deficiencies in emergency response efforts.

Intervenors maintained below that the testimony of Drs. Zeigler and Johnson established that significant numbers of emergency workers would abandon or delay performing their response duties in an effort to protect themselves and their families.¹⁰⁵ As support for their position that emergency worker role abandonment would be a serious problem in a radiological emergency, these witnesses relied upon a number of different sources. Among them were sociological research suggesting that in times of disaster families tend to want to be together and to evacuate together; "disaster literature" assertedly establishing

¹⁰²The lay testimony referred to *supra* at pp. 391-92, was offered by intervenors to establish that the "unique" character of the Seabrook site enhanced the likelihood that in the event of an emergency there would be serious disruptive behavior, particularly by drivers during a lengthy evacuation. Countering intervenors' assertions on this score, however, is the testimony of staff expert Dr. Urbanik who declared:

Certainly Seabrook is unique, but there have been extensive periods of congestion where people have been stuck in their cars for hours and hours before they have arrived at their destination. So, it is not black and white. I mean it is not that we have got one just like Seabrook. But on the other hand, it is not like there is not anything that is not like it at all.

Tr. 7486. Further, citing as an example the extensive evacuation in the early 1960s of 200,000 people from the Texas coast brought on by Hurricane Carla during which evacuees were in traffic "for hours and hours," Dr. Urbanik concluded that for "major, large-scale evacuations" there was "no experience with accident problems; no experience with aberrant behavior. Nothing empirically that would lead us to the conclusion that people are going to act out of the way that we want them to act, if they are stuck in traffic for hours." Tr. 7489-90. We find nothing in intervenors' lay testimony that is sufficient to demonstrate that the actions of those involved in an emergency situation at Seabrook would be significantly different from those described by Dr. Urbanik.

We also fail to see how the 1972 "youth riot" in the beach area referenced by SAPL as evidence of potential disorderliness, *see* SAPL Brief at 61, has much of anything to do with human behavior during natural or technological emergencies.

¹⁰³*Northern Indiana Public Service Co.* (Bailly Generating Station, Nuclear 1), ALAB-303, 2 NRC 858, 866 (1975) (citations omitted).

¹⁰⁴*See* ALAB-924, 30 NRC at 367 & n.165; *Bailly*, 2 NRC at 867.

¹⁰⁵*See* LBP-88-32, 28 NRC at 735. In addition, as will be seen later, intervenors presented other witnesses who addressed specifically the likely response of schoolteachers to a Seabrook radiological emergency.

that those in emergency response roles who experience a conflict because of their family responsibilities inevitably will abandon their emergency worker roles; several recent studies purporting to show emergency role abandonment during the 1979 accident at Three Mile Island (TMI); surveys of school bus drivers, volunteer firefighters, and teachers within the vicinity of the Shoreham and Diablo Canyon nuclear facilities indicating a strong concern for the welfare of their families in the event of an emergency; and a telephone survey of local residents in which some forty percent of the individuals who identified themselves as having emergency response roles in the event of a Seabrook emergency stated that they would delay reporting for duty until they had assured themselves of the safety of their families.¹⁰⁶

To counter intervenors' presentation, applicants again proffered testimony by Dr. Mileti. He acknowledged that individuals play many different societal roles with different rights and obligations.¹⁰⁷ He also observed that, while there may be instances in which an individual's different roles will appear to "conflict," this does not necessarily mean that the person will engage in behavior that constitutes abandoning one of those roles entirely.¹⁰⁸ Rather, the individual is more likely to experience "role strain," in which he or she is subject to a mental state of concern and uneasiness.¹⁰⁹ Dr. Mileti maintained that such role strain is a permanent feature of social life and something with which people must cope in most societal situations.¹¹⁰

Dr. Mileti conceded that some of the early literature on disasters and emergencies describes behavior that appears to demonstrate that an emergency worker's role conflict between family responsibilities and emergency response duties inevitably will be resolved in favor of the family role, thereby contributing at least initially to disorganization in disaster response efforts.¹¹¹ It was his assertion, however, that this research failed to take into account a significant factor: the individual's pre-emergency conception of the role he or she should be playing in response to an emergency.¹¹² According to Dr. Mileti, other research that has focused on this factor demonstrates that when an emergency worker's role is clearly defined prior to the emergency — "perhaps through training and planning" — emergency workers will not abandon their response roles.¹¹³ In this regard, Dr. Mileti stated that pre-emergency training and planning

¹⁰⁶ Testimony of Donald J. Zeigler, James H. Johnson, Jr., and Stephen Cole on Behalf of the [MassAG] on SAPL Contention 7, SAPL Contention 8A, SAPL Contention 15, SAPL Contention 25, SAPL Contention 31, [TOH] Contention III and [TOH] Contention IV, fol. Tr. 7849, at 40-53.

¹⁰⁷ Applicants' Direct Testimony No. 7, at 106.

¹⁰⁸ *Id.* at 106-07.

¹⁰⁹ *Id.* at 107.

¹¹⁰ *Ibid.*

¹¹¹ *Id.* at 107-11.

¹¹² *See id.* at 112-17.

¹¹³ *Id.* at 117-19.

measures can be effective in combatting the possibility of role abandonment because they give the worker a clear idea of his or her responsibilities and of the degree to which the community and other emergency workers are depending upon him or her in an emergency.¹¹⁴ These measures also provide information that will make the worker aware of the nature of the risk involved and the utility of family contingency plans to ensure that the emergency worker can fulfill his or her responsibilities without concern for the safety of family members.¹¹⁵

On this latter point, Dr. Mileti also declared that, if an emergency worker has not already made advance plans for someone (a spouse, relative, neighbor, or other appropriate person) not involved in emergency response to take measures to protect his or her family, in seeking to alleviate any mental "role strain" he or she will act by improvising measures to ascertain whether family members are safe.¹¹⁶ His judgment thus was that "emergency workers who know of their emergency roles in advance of an emergency perform their emergency functions in the event of an emergency."¹¹⁷ Finally, summarizing the data concerning emergency worker role abandonment, Dr. Mileti concluded that "a large body of historical evidence shows the functioning of emergency organizations is not hampered by failure of emergency workers to perform their jobs" and that, "[w]hile role abandonment may be theoretically possible, it is certainly extremely rare, and consequently it does not reduce organizational effectiveness."¹¹⁸

In reviewing the conflicting expert testimony, the Licensing Board found "very persuasive" Dr. Mileti's interpretation of the research on emergency response phenomena and his conclusions concerning the central function of emergency worker role certainty in negating role abandonment.¹¹⁹ The Board also determined that the intervenors' evidence concerning role abandonment during the TMI accident provided little support to counter Dr. Mileti's conclusions. Its determination in this regard was based principally on the Board's conclusion that, because there was no effective radiological emergency response planning and few emergency role assignments with respect to TMI, there was no reliable evidence of the existence of the type of worker role certainty that Dr. Mileti's analysis indicated would significantly deter role abandonment.¹²⁰ The Board additionally found that, even if it accepted intervenors' survey evidence on local emergency worker responses as statistically reliable (which applicants asserted it was not), the survey nonetheless was unpersuasive. The Board noted that

¹¹⁴ *Id.* at 124.

¹¹⁵ *Ibid.*

¹¹⁶ *Id.* at 120-21.

¹¹⁷ *Id.* at 124-25.

¹¹⁸ *Id.* at 125.

¹¹⁹ LBP-88-32, 28 NRC at 739.

¹²⁰ *Id.* at 741.

the survey's significance for intervenors' witnesses rested on their assumption that, because overloaded switching equipment would make telephone contact impossible during an emergency, the one-third of emergency worker survey respondents who declared they would check on their families by telephone before reporting for emergency duty would become frustrated and ultimately would abandon their duties to seek out their families.¹²¹ The Board concluded, however, that this premise was faulty because the record concerning telephone communications during a radiological emergency at Seabrook established it was very unlikely that an emergency worker (or anyone else) would experience lengthy delays in successfully completing telephone calls.¹²² The Board declared further that, with this assumption discarded, the survey results in fact suggest that some ninety percent of the emergency workers questioned would either report immediately or after a short delay while checking upon their families, thereby demonstrating widespread role acceptance rather than role abandonment.¹²³ Thus, accepting the analysis of Dr. Mileti in preference to that put forth by the intervenor witnesses, the Licensing Board concluded that role abandonment by those with emergency response duties under the NHRERP generally would not constitute a serious obstacle to an effective emergency response in the event of a radiological accident at Seabrook.¹²⁴

Before us, intervenors do not challenge the Licensing Board's conclusions concerning role abandonment by emergency workers generally.¹²⁵ Instead, intervenors SAPL and TOH have mounted a narrower attack, asserting that the evidence before the Board did not support its conclusion that schoolteachers would fulfill their particular emergency response role under the NHRERP.¹²⁶

With respect to school teachers, a major focus before the Licensing Board was on the weight and effect to be afforded to the sworn testimony of thirteen teachers concerning their own response, and the response of teachers generally, in the event of a Seabrook emergency. The Board described teachers' responsibilities under the NHRERP as including accounting for the students in their direct care, taking those students to a central place in the school in order to allow for a school-wide accounting to be made (and to engage in sheltering if

¹²¹ *Id.* at 736.

¹²² *Ibid.* The Licensing Board's findings regarding the availability of telephone service in the event of an emergency, *see id.* at 727-28, have not been challenged before us by intervenors.

¹²³ *Id.* at 736.

¹²⁴ *Id.* at 749. For the reasons addressed in our discussion concerning behavior of the general public, *see supra* pp. 394-97, the Licensing Board also rejected an intervenor assertion that fear of radiation would result in role abandonment by emergency workers. *See* LBP-88-32, 28 NRC at 741-42.

¹²⁵ Although SAPL notes that the Licensing Board, citing the "realism/best efforts" presumption regarding state and local governmental nonparticipation in emergency planning, refused to credit the testimony of local officials that they and other public officials would not respond in the event of a radiological emergency, *see id.* at 728-29, 732-35, it does not contest that determination. SAPL Brief at 58.

¹²⁶ *See* SAPL Brief at 58-61; Town of Hampton's Brief in Support of Appeal (Feb. 10, 1989) at 36-42.

that is the recommended protective action), and accompanying the students on school buses to the reception centers that would be the students' destination in the event of an evacuation.¹²⁷ The teachers, however, testified that, acting upon the belief that in the event of a Seabrook emergency their own children and other dependents would be in grave danger because of the unworkability of the NHRERP, they would promptly leave their students without performing any of these duties in order to care for their own families.¹²⁸ Further, on the basis of their attendance at meetings and conversations with other teachers, the teachers predicted that almost all of the teachers in the Seabrook EPZ would act similarly in the event of an emergency.¹²⁹ Also in support of this point, the teachers described the results of a survey they and other teachers conducted that indicated that, for nearly all the teachers in fifteen schools within the EPZ, only four percent were willing to implement the NHRERP.¹³⁰ In addition, intervenors introduced into evidence a petition signed by 597 teachers from schools within the EPZ that stated "[w]e DO NOT accept the conflicting duty which the Emergency Response (Evacuation) Plan assigns us. We believe it is inappropriate to expect us to provide emergency support for our students during a nuclear accident which would simultaneously place our families in danger."¹³¹

In considering the teachers' testimony, the Licensing Board described twelve of the thirteen teachers as "serious, fair-minded, and . . . sincere" and declared it had "no reason to believe that the teachers appearing before us have any less commitment to their pupils than do other teachers."¹³² The Board also stated that it accepted the central theme of the teachers' testimony that they believe "that in a radiological emergency at Seabrook . . . there will be chaos; there will be an unworkable plan in effect, protective information will be unreliable, and their pupils will be in danger."¹³³ The Board found that essential to the teachers' prediction of pupil abandonment was "the belief that their own children and dependents will simultaneously be in danger — their children's teachers having also abandoned their pupils."¹³⁴ In this regard, referencing testimony by Dr. Mileti to the effect that role conflict is not generally a concept applied critically to one facing a choice of roles, the Board concluded that the teachers

¹²⁷ LBP-88-32, 28 NRC at 729-30. Under the terms of the NHRERP, teachers' duties also would extend to staying at the reception centers until the children are claimed by their parents or legal guardians or the teachers are relieved by other personnel. *E.g.*, NHRERP (Hampton Special Facilities Plans), Vol. 18A, at F-3-6.

¹²⁸ See Corrected Prefiled Testimony of [Thirteen Teachers] Regarding [TOH] Revised Contentions IV and VI and [SAPL] Contentions 8, 8A, and 15, fol. Tr. 3945, at 3, 8-9 [hereinafter Teachers' Direct Testimony].

¹²⁹ *Id.* at 5.

¹³⁰ *Id.* at 5-8.

¹³¹ TOH Exh. 10.

¹³² LBP-88-32, 28 NRC at 731. The Licensing Board rejected the testimony of the thirteenth teacher on the basis that her views were "hopelessly biased" because of her activities, including attempted disruption of the Board's hearings, as an official of an anti-Seabrook organization. *Ibid.*

¹³³ *Ibid.*

¹³⁴ *Ibid.*

"believe that they will select the role of parent rather than that of emergency worker, having rejected the latter status."¹³⁵

Despite these findings, the Board discounted the teachers' testimony and the other intervenor evidence on teacher role abandonment. The Board found the petition and the survey unconvincing because they failed to provide a basis for concluding that the teachers involved actually believed that a radiological emergency at Seabrook would place their dependents in danger or that those signing the petition were told they would be abandoning their students.¹³⁶ In addition, it concluded that the dozen educators who testified were not representative of teachers in general because "[e]ach had his or her own reasons for volunteering to appear at the hearing," and "[h]undreds of teachers did not volunteer to testify."¹³⁷ The Board also found that the teachers' expressed doubts about the workability of emergency planning under the NHRERP were groundless because "[t]he teachers do not claim to be experts on emergency planning" and "provide no reasoned basis for their assumption" that chaotic conditions will prevail after a Seabrook emergency.¹³⁸ Further, the Licensing Board rejected the notion that not enough teachers "would accept evacuation with their pupils" or at least "see their pupils to the school buses" based on its expectation that, while not all teachers will engage in "heroic behavior," they nonetheless will "perform better than the general population in an emergency."¹³⁹ Declaring that schoolteachers' reactions would be mixed, the Board concluded that "[s]chool teachers and school officials, as a group, will not abandon their pupils in the event of a radiological emergency at Seabrook."¹⁴⁰

Intervenors SAPL and TOH assert that, in light of the twelve teachers' testimony, the Licensing Board's general conclusions that it expected teachers to perform better than the general public and to carry out the duties assigned to them in the NHRERP are baseless. Applicants and the staff urge that the Board's decision regarding teacher behavior be affirmed.¹⁴¹ We do so, although for reasons that, at least in part, differ from those put forth by the Board in its December 1988 decision.

Given the subject matter involved — the safety of schoolchildren — the sworn testimony by these dozen "serious, fair-minded, and . . . sincere" teachers is disquieting. Their declarations that, notwithstanding the tasks attributed to them by the NHRERP, in the event of an announcement of a Seabrook emergency they promptly would leave their students in order to take care of family members

¹³⁵ *Ibid.*

¹³⁶ *Id.* at 731-32.

¹³⁷ *Id.* at 732.

¹³⁸ *Ibid.*

¹³⁹ *Ibid.* (emphasis in original).

¹⁴⁰ *Id.* at 749.

¹⁴¹ Applicants Brief at 13-14; NRC Staff Brief at 31-32.

and other dependents are particularly troubling when viewed in conjunction with the petition signed by 597 other teachers and the survey, both of which suggest similar actions would be undertaken by a number of other teachers.¹⁴² Thus, it undoubtedly is an understatement to characterize this evidence, as the Licensing Board did with respect to the petition, as “demonstrat[ing] that many teachers are concerned about having a role in the school emergency plans.”¹⁴³

Nonetheless, we conclude that, at least insofar as teachers are performing duties corresponding to those they generally undertake in connection with their normal duties and responsibilities, the Licensing Board was correct in its ultimate conclusion that teacher role abandonment does not pose a substantial barrier to an adequate emergency response under the NHRERP. In arriving at the conclusions critical to its determination concerning teacher response, the Licensing Board chose to “ponder the testimony of the teachers on our own, free from the advice of experts.”¹⁴⁴ We find, however, that various aspects of Dr. Mileti’s expert testimony on human behavioral responses in emergencies, particularly his testimony on emergency worker responses, provide substantial additional support sufficient to assure us that the intervenor-sponsored evidence concerning emergency response by teachers does not warrant a different result.¹⁴⁵

In reviewing the teachers’ testimony, we find relevant Dr. Mileti’s conclusion, discussed *supra* in the context of behavioral responses of the general public, that pre-emergency perceptions of risk, and of one’s response to that risk, provide an uncertain guide to behavior in an actual emergency.¹⁴⁶ In this instance, the teachers’ declarations that in an emergency they would leave their students in the classrooms in order to be with their own families, apparently without taking any

¹⁴²In concluding that the dozen teachers who testified were not “representative” of other teachers, the Board made particular reference to the fact that “[h]undreds of teachers did not volunteer to testify.” *Id.* at 732. The significance the Board apparently attributes to the number of teacher witnesses is questionable, however, for it fails to account for the testimony of one teacher witness who stated that, as the president of the 350-member Portsmouth Teachers Association, he was speaking for the association and he was confident that the testimony of the teachers on the panel was in agreement with that of the association’s members. Tr. 4024-25. The Board’s reference also does not recognize that, as intervenor counsel observed in introducing the teacher petition, “by reason of sheer numbers” the 597 signatories could not appear to testify. Tr. 3938. Indeed, it is doubtful, given the logistical considerations involved, that if all 597 had sought to testify, that would have been permitted. Finally, the Board’s statement does not acknowledge that there apparently was no testimony presented from even one teacher to the effect that he or she would carry out the role assigned by the plan.

¹⁴³LBP-88-32, 28 NRC at 730.

¹⁴⁴*Id.* at 731.

¹⁴⁵In this regard, we note also that SAPL asserts that the Licensing Board erred in its treatment of teacher behavior by stating that the “realism/best efforts” presumption embodied in 10 C.F.R. § 50.47(c)(1)(iii) “should apply to teachers as well as to other government leaders.” LBP-88-32, 28 NRC at 731. Given the doubtful role of New Hampshire public and private schoolteachers as government officials, *see* ALAB-924, 30 NRC at 344 n.25, SAPL’s point is not without merit. Nonetheless, as the staff suggests, *see* NRC Staff Brief at 31, because there is adequate record support for the Board’s ultimate conclusion, particularly in view of Dr. Mileti’s testimony concerning human behavior, it is not apparent that the rule’s presumption was (or need be) utilized in a manner having any substantive effect upon this aspect of the proceeding. Thus, even if mistaken, the Board’s “best efforts” statement was harmless error.

¹⁴⁶*See supra* p. 395.

measures to provide for the children's safety, are like those responses Dr. Mileti declared would not be the norm for the public in emergency situations and, in any event, would seem unlikely for professional educators.

We also find Dr. Mileti's testimony on "role certainty" for emergency workers pertinent to our conclusion that there will be a sufficient emergency response on the part of school personnel. As we previously described in some detail, it is Dr. Mileti's expert judgment that awareness of a response role and familiarity with the particular responsibilities and duties of that role impart certitude to the action of those being relied upon to respond in an emergency and deter role abandonment.¹⁴⁷ The teachers' responses to the survey and the petition leave no doubt that teachers generally are aware that under the NHRERP they have responsibilities for the care of their students during an emergency.¹⁴⁸ Further, despite the teachers' testimony that they have not volunteered to accept those responsibilities,¹⁴⁹ teachers' emergency responsibilities parallel in great measure those duties they perform as part of their normal, daily, on-the-job activities. Hence, consistent with Dr. Mileti's general emphasis on familiarity with response duties as a factor in role certainty, it is reasonable to conclude that their familiarity with and acceptance of their day-to-day responsibilities creates a high degree of "role certainty" and a correspondingly high probability that in an emergency teachers will act in sufficient numbers to perform their usual roles.¹⁵⁰

In our previous discussion in ALAB-924 concerning the need for letters of agreement (LOAs) to confirm the participation of school personnel in response activities, we suggested that some, but not all, of the responsibilities assigned to teachers by the NHRERP correspond to their normal, everyday duties. In this regard, we observed that, as part of its discussion of human behavior issues relating to teachers, the Licensing Board found teachers' bus escort duties (which the Board declared rendered them emergency "service providers") different from their other NHRERP responsibilities to account for the children in their care and to see that they are safely aboard transportation.¹⁵¹ The apparent basis

¹⁴⁷ See *supra* pp. 399-400.

¹⁴⁸ See *supra* p. 402. See also Tr. 3977, 4014. The teachers' testimony suggests that they were unable or unwilling to receive training concerning the exact nature of their Seabrook-related emergency duties. See Teachers' Direct Testimony at 9-10; Tr. 4013-14. Nonetheless, given their experience with procedures for regular and early dismissals (i.e., for snow storms and other occurrences), both of which generally involve accounting for their students and supervising them until their transportation home arrives, see Tr. 3950, 4009-11, we find this of little moment in terms of the teachers' role certainty.

¹⁴⁹ Tr. 4030-31.

¹⁵⁰ Because of the potential for "doubling up" on supervisory and other roles among school personnel, role abandonment generally would become a concern only if it occurs with some frequency. Cf. *Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-832, 23 NRC 135, 151 (1986) (intervenor evidence regarding teacher role abandonment insufficient because it failed to establish there would not be the minimum number of teachers needed for proper supervision), *rev'd in part on other grounds*, CLI-87-12, 26 NRC 383 (1987).

¹⁵¹ ALAB-924, 30 NRC at 342-43.

of the Board's finding was that their bus escort duties go beyond those for which teachers ordinarily are responsible.¹⁵² Subsequently, we concluded that this "service provider" designation, in conjunction with the lack of any evidence in the record to show that the bus escort duty was one for which teachers normally were responsible, indicated a need for confirmatory LOAs to cover that escort activity and remanded the matter to the Board for further consideration.¹⁵³ Now, in reviewing the Board's human behavior findings relating to teachers, we find that Dr. Mileti's "role certainty" principle also supports the view that teachers will perform many of their NHRERP-assigned duties (including accounting for and supervising the children and assuring their safe boarding of evacuation buses) because those responsibilities correspond sufficiently to their usual duties.¹⁵⁴ But, by the same token, even with Dr. Mileti's testimony, we remain troubled about whether this can be said with respect their role as escorts on the student evacuation buses.¹⁵⁵ This role may necessitate the teachers' traveling for indefinite periods of time considerable distances from their school and very likely their homes and families. Moreover, if a teacher embarks on a bus for the potentially lengthy trip to a reception center, the teacher's opportunity to engage in actions designed to alleviate "role strain" (e.g., calling home to check upon family members) could be severely hampered, if not foreclosed, thereby adding to the possibility that role abandonment might occur.

In the circumstances, however, we need not resolve this second matter. In providing its explanation in LBP-89-33 of why our remand of the LOA issue in ALAB-924 was not cause to delay the effectiveness of its November 1989 decision authorizing issuance of a full-power license for Seabrook, the

¹⁵² See LBP-88-32, 28 NRC at 730.

¹⁵³ ALAB-924, 30 NRC at 343-44.

¹⁵⁴ Consistent with its earlier determination that teachers generally are not "providers" of emergency services for purposes of determining whether LOAs are required, see LBP-88-32, 28 NRC at 673, the Board did not rely heavily upon Dr. Mileti's expert testimony concerning the responses of "emergency workers" in resolving the human behavior issues relative to teachers. See *supra* note 144 and accompanying text. We have no reticence in this respect, however, because we find that Dr. Mileti's expert analysis concerning emergency worker responses, as described *supra*, is consistent with our analysis, as expressed in ALAB-924, 30 NRC at 342-44, of the need for confirmatory LOAs to encompass certain aspects of participation by school personnel in an emergency response.

¹⁵⁵ In this regard, we are aware that in its discussion of emergency worker role abandonment, referencing testimony of Dr. Mileti at Tr. 6(6)25-26, the Licensing Board declared that Dr. Mileti's "role certainty" principle "provides excellent support for the Board's own view that teachers as a group are highly unlikely to abandon their schoolchildren in an emergency." See LBP-88-32, 28 NRC at 740-41. While the cited testimony could be seen as covering all duties assigned to teachers under the NHRERP, without regard to whether the duties correspond to teachers' normal responsibilities, we question this interpretation on two counts. First, in denoting in his testimony the specific emergency duties that teachers would perform, Dr. Mileti stated that "I perceived that [teachers'] role in a radiological emergency would be to get the school children on to evacuation buses and/or sheltered, depending upon the type of recommended protective action." Tr. 6625. These, however, are the type of on-the-school grounds, accounting/supervisory activities we have concluded teachers can be counted on to perform. Further, although Dr. Mileti subsequently stated that "I don't know of one emergency in the history of this country where teachers have abandoned their children and not done what they needed to do," *ibid.*, we find this seemingly broader statement of teachers' duties of questionable relevance in determining whether they will act as bus escorts given the evidence, discussed *infra*, indicating that teachers are not "needed" for that role.

Licensing Board considered the issue of whether the “bus escort” activity of teachers was necessary for effective emergency response and concluded that it was not.¹⁵⁶ In appraising this Licensing Board explanation in its own decision on whether to make the Board’s full-power authorization immediately effective, the Commission declared:

[I]t does not appear that there is any reason why the evacuation of schoolchildren will be delayed or will not occur even if *no* teachers or other school personnel agree to accompany the children on evacuation buses. The Licensing Board noted that Richard Strome, then New Hampshire’s Director of Emergency Management, while hoping that teachers would participate, stated that their participation is not “key to the process” and observed that schoolchildren usually get on school buses without assistance and that teachers do not regularly travel on the buses.¹⁵⁷

Made, as it is, in the context of the Commission’s immediate effectiveness decision, this observation is not binding upon us.¹⁵⁸ Indeed, the *need* for teachers as bus escorts was not an issue the parties placed before us in any of the matters raised on appeal concerning LBP-88-32 or in a motion to reconsider our determination concerning LOAs for school personnel in ALAB-924. Nonetheless, in the present context of our review of intervenors’ appeals regarding human behavior issues, we cannot disregard the record evidence identified by the Licensing Board and the Commission indicating that, insofar as the NHRERP provides for teacher escorts on evacuation buses, those provisions *are not necessary* for the safety of the schoolchildren involved.¹⁵⁹ The State planners’ conclusion in this regard is apparently based upon their not unreasonable judgment that bus drivers will be able to transport the students safely to reception centers, where the students will be cared for and supervised by the personnel already assigned to staff the centers until such time as they are reunited with their parents or guardians.¹⁶⁰ Because State planning officials have concluded that the role of teachers as bus escorts is largely superfluous, we perceive no purpose in considering further whether teachers will fulfill those roles under the plan.¹⁶¹

We thus conclude that, with respect to those duties necessary to provide for the protection of schoolchildren in the event of a radiological emergency,

¹⁵⁶ 30 NRC 656, 660, supplementing LBP-89-32, 30 NRC 375 (1989), *appeals pending*.

¹⁵⁷ CLI-90-3, 31 NRC 219, 234-35 (1990) (emphasis in original), *petition for review pending sub nom. Massachusetts v. NRC*, Nos. 90-1132, 90-1218 (D.C. Cir. filed Mar. 7 and Apr. 27, 1990).

¹⁵⁸ See 10 C.F.R. § 2.764(g).

¹⁵⁹ See Tr. 3388-89.

¹⁶⁰ Cf. *Shoreham*, 23 NRC at 152 (evacuation of schoolchildren to be accomplished by bus drivers).

¹⁶¹ We would suggest, however, that, so as not to mislead those involved in or relying upon emergency response efforts by school personnel, State planners may wish to revise the plan to reflect their judgment about the precatory nature of teacher participation as escorts on student buses.

the Licensing Board was correct in its determination that under the NHRERP, teacher role abandonment is not a significant concern.

III. EVACUATION TIME ESTIMATES

Under NRC emergency planning requirements, planning officials are required to develop "[g]uidelines for the choice of protective actions during an emergency."¹⁶² To this end, planners also are to "provide an analysis of the time required to evacuate and for taking other protective actions for various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations."¹⁶³ NUREG-0654 guidance on fulfilling these requirements provides that an evacuation time estimate (ETE) should be prepared "based on a dynamic analysis (time-motion study under various conditions) for the [EPZ]."¹⁶⁴ As we have noted previously, "the [ETE] analysis is intended to reflect a realistic time for completing an evacuation."¹⁶⁵ With this information in hand, "emergency coordinators can then decide what protective actions (e.g., sheltering or evacuation) are warranted in the circumstances, if a radiological emergency occurs."¹⁶⁶ The ETE is, however, only a planning tool; Commission regulations establish no particular time limits for completing an EPZ evacuation.¹⁶⁷

For emergency planning purposes, the Seabrook EPZ has been divided into seven Emergency Response Planning Areas (ERPAs).¹⁶⁸ In turn, regions, each consisting of one or more ERPAs, have been established on the basis of direction (i.e., north, south, or west) and spatial extent (i.e., beach area, two miles, five miles, EPZ boundary) relative to the Seabrook Station.¹⁶⁹ In accordance with NUREG-0654 guidance, the NHRERP sets forth a series of ETEs intended to cover different evacuation scenarios. The scenarios encompass different seasons (summer or off-season), days (weekend or midweek), times (mid-day, evening, or all day) and weather conditions (good, rain, or snow).¹⁷⁰ For each scenario, the ETE for each region was calculated using the Interactive Dynamic Network Evaluation (I-DYNEV), a computer model developed by government consultants.¹⁷¹

¹⁶² 10 C.F.R. § 50.47(b)(10).

¹⁶³ *Id.* Part 50, App. E, § IV.

¹⁶⁴ NUREG-0654 Criterion II.J.10.1. Further detailed guidance on how to prepare an ETE is provided in Appendix 4 to NUREG-0654.

¹⁶⁵ *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-845, 24 NRC 220, 244 (1986); *see also Limerick*, ALAB-836, 23 NRC 479, 486 (1986).

¹⁶⁶ *Limerick*, ALAB-845, 24 NRC at 244; *see also Limerick*, ALAB-836, 23 NRC at 486.

¹⁶⁷ *See Limerick*, ALAB-845, 24 NRC at 244; *Limerick*, ALAB-836, 23 NRC at 486.

¹⁶⁸ NHRERP (Seabrook Station Evacuation Time Study), Vol. 6, at 10-5.

¹⁶⁹ *Id.* at 10-3.

¹⁷⁰ *Id.* at 10-2.

¹⁷¹ *Id.* at 10-1, 10-6 to -11; *see LBP-88-32*, 28 NRC at 781.

The Licensing Board concluded that the ETEs put forth by applicants, as modified by the Board on the basis of the record established during the hearing on intervenors' ETE contentions, were sufficiently accurate to fulfill all applicable requirements.¹⁷² Before us, intervenors MassAG and NECNP assert that several deficiencies exist in the ETEs that were generated for the New Hampshire portion of the Seabrook EPZ. Principally, they contend that (1) traffic management efforts have failed to recognize and compensate for the effects upon evacuation times of delayed staffing of the seventy traffic control posts (TCPs) for the New Hampshire EPZ, and (2) the number of vehicles at the beach on a summer "peak" day was inaccurately determined, thereby affecting the accuracy of the ETEs for the beach population.¹⁷³ Although we find no basis for the first assertion of error, we conclude that some additional modification is necessary for the ETEs involving the beach area.

A. The Licensing Board recognized that in a fast-breaking accident there might not be sufficient time to have State or local police personnel at all TCPs before an evacuation is to begin.¹⁷⁴ In this regard, the focus was on the New Hampshire State Police, which will provide personnel for at least forty percent of the TCPs.¹⁷⁵ In testimony before the Board, New Hampshire State Police Captain Sheldon Sullivan described the mobilization of State Police both from Troop A in Rockingham County, where the Seabrook plant is located, and from other troops across the rest of the state.¹⁷⁶ Captain Sullivan estimated that from the time State Police troopers are told to respond within the EPZ, four troopers could reach TCPs within fifteen minutes, three more officers could respond within the next forty-five minutes, and in the next hour six more troopers would arrive at TCPs.¹⁷⁷ Thereafter, additional troopers would arrive so that within five hours after notification, approximately 100 troopers would be on duty.¹⁷⁸ Captain

¹⁷² LBP-88-32, 28 NRC at 803-04.

¹⁷³ MassAG Brief at 29-32; NECNP Brief at 27-41. Before the Licensing Board, intervenors also raised a concern about whether sufficient consideration had been given to the effect upon the ETEs of New Hampshire EPZ residents who commute to work outside the EPZ but who, in returning home during an evacuation, would create additional traffic congestion. The Licensing Board deferred resolution of this issue pending further submissions by the parties. See LBP-88-32, 28 NRC at 789. The Board subsequently addressed the matter in its November 1989 final partial initial decision on emergency planning matters. See LBP-89-32, 30 NRC at 423-34.

¹⁷⁴ LBP-88-32, 28 NRC at 789. In addition to the 70 TCPs designed to facilitate traffic flow out of the EPZ, police also are to staff 19 access control points (ACPs) to restrict entry into the EPZ. *Id.* at 790. As the Licensing Board noted, for the issue of ETE accuracy, the importance of ACPs is that they take up available police resources. *Ibid.*

¹⁷⁵ *Id.* at 790-91. In the event of local community nonparticipation, the number of State Police needed for traffic control would be somewhat higher. See *infra* note 192.

¹⁷⁶ See Tr. 4676, 4679-80, 4696. State-wide mobilization is necessary because planners called for the use of 48 troopers to staff TCPs and 26 State Police officers at ACPs. See LBP-88-32, 28 NRC at 791. At the time of applicants' personnel response survey, Troop A had only 36 troopers, of which 12 to 14 would be on active duty or on call at any given time. See Tr. 4676-78.

¹⁷⁷ Tr. 4714-15.

¹⁷⁸ Tr. 4715.

Sullivan also stated that ultimately 185 New Hampshire uniformed troopers would be available for service within the EPZ.¹⁷⁹

In an effort to address intervenors' concerns about the effect of delayed staffing upon ETEs, particularly in light of the delays about which Captain Sullivan testified, applicants made three different I-DYNEV computer calculations that assumed there would be late or no staffing of TCPs.¹⁸⁰ As detailed by the Licensing Board, for the first calculation, the applicants assumed that the important State Police-staffed TCP at the New Hampshire Route 51 overpass at Interstate 95 would not be manned for one hour after beach closure; that the TCP at the intersection of State Routes 1 and 101C would not be staffed by State Police until two hours after beach closure; and that a planned State Police TCP at Hampton Harbor Bridge to discourage traffic from traveling south from the Town of Hampton Beach toward the Town of Seabrook would not be established for two hours.¹⁸¹ The second calculation was made to determine the sensitivity of the ETE model to a two-hour delay in the staffing of the Route 51 overpass TCP.¹⁸² For the third calculation, it was assumed that none of the capacity-enhancing TCPs in the Massachusetts portion of the EPZ was established.¹⁸³ The first calculations showed a twenty-minute decrease in the ETE for the entire EPZ.¹⁸⁴ The second calculation showed an ETE increase of five minutes.¹⁸⁵ An ETE increase of two hours resulted from the third calculation.¹⁸⁶ The Licensing Board concluded that these additional sensitivity calculations adequately reflected the effect of delayed staffing upon ETEs.¹⁸⁷

Before us, the MassAG does not directly contest the Board's findings concerning the effects of delayed staffing on ETEs.¹⁸⁸ Instead, as he did before

¹⁷⁹ The total figures cited by Captain Sullivan were as of August 1987, the time of the applicants' SPRA. Tr. 4729-30. Captain Sullivan stated that at the time he testified in November 1987, the number of uniformed officers had increased by 21. Tr. 4700, 4729-30. He also noted that the potential existed for calling into service an additional 40 State Police officers who normally serve as plain clothes detectives as well as 3300 officers from surrounding states who, in accordance with the New England State Police Compact, are to respond at the request of the Governor of New Hampshire. Tr. 4698-99, 4730-31.

¹⁸⁰ See Applicants' Direct Testimony No. 7, at 44-48.

¹⁸¹ LBP-88-32, 28 NRC at 792.

¹⁸² *Ibid.*

¹⁸³ *Ibid.*

¹⁸⁴ *Id.* at 793. The reason for this decrease is that permitting movement south over the Hampton Harbor Bridge expedites evacuation. See Applicants' Direct Testimony No. 7, at 47.

¹⁸⁵ LBP-88-32, 28 NRC at 793.

¹⁸⁶ *Ibid.*

¹⁸⁷ *Id.* at 794.

¹⁸⁸ Citing a Licensing Board finding in its discussion of "Human Behavior in Emergencies" that the I-DYNEV model "utilized a 15% reduction in capacity factor on all roads to account for driver uncertainty and short-term disruptions which can disrupt capacity," *id.* at 747, intervenor NECNP asserts that this finding is, in fact, related to TCP staffing delays and that the 15% figure is too low to account for such delays. NECNP Brief at 36-38. As applicants point out, Applicants Brief at 24, NECNP's argument concerning the validity of the 15% figure is misplaced because its premise that this finding by the Board was intended to address delays arising from TCP staffing is wrong. If this figure was intended to address the issue of TCP delays, there seemingly would be no reason to conduct the additional I-DYNEV runs described *supra*.

the Licensing Board, the MassAG uses the applicants' admission that staffing delays may occur in some circumstances as a springboard to question TCP staffing adequacy. The Licensing Board rejected this line of attack, declaring that (1) New Hampshire had committed all of its available State Police resources to evacuation traffic control and was not required to hire more State troopers in anticipation of a radiological emergency, and (2) the MassAG's argument improperly isolated a particular, rapidly developing accident sequence during the peak summer population and involving the entire EPZ in order to attack overall planning adequacy.¹⁸⁹ The MassAG asserts the Board's analysis is wrong on both counts. Applicants and the staff both support the Licensing Board's analysis.

To begin with, the MassAG questions the Licensing Board's conclusion that all available New Hampshire State Police have been committed to evacuation traffic control, pointing to the fact that, of the 185 uniformed officers identified as "available" in the applicants' SPRA, only seventy-four are committed to traffic control.¹⁹⁰ He also suggests that the Licensing Board's declaration that no further officers need be hired was tantamount to an improper holding that by providing all available resources, the State has undertaken its "best efforts" and thus need do no more.

These arguments miss the mark. While the MassAG correctly states that only seventy-four of the 185 uniformed officers have been "committed" to traffic control, this ultimately is irrelevant to the issue of whether this staffing level is adequate. The MassAG has not called our attention to any record evidence establishing either that more than seventy-four officers are needed to service the TCPs now designated under the NHRERP or that additional TCPs (staffed by additional officers) should be designated at particular locations.¹⁹¹ Moreover, the MassAG's argument fails to account for the fact that all but twelve of the "available" officers who are not committed to controlling traffic (i.e., nearly 100

¹⁸⁹ LBP-88-32, 28 NRC at 795.

¹⁹⁰ MassAG Brief at 29-30.

¹⁹¹ Although asserting that traffic control staffing in the New Hampshire portion of the EPZ generally is inadequate because of the congested traffic flow throughout the EPZ, as proof of this inadequate staffing the MassAG references only the lack of traffic guides along a one-mile stretch of road in Hampton Beach. *Id.* at 15. He fails to point to any evidence in the record establishing where more staffing is needed for this (or any other) particular stretch of roadway, much less how much more staffing would be required. Given that the number of state troopers who can be called upon for traffic control is well in excess of what is presently utilized under the NHRERP, *see* Applicants' Exh. 1-A; *supra* note 179 and accompanying text, even accepting the MassAG's premise that traffic congestion and the disorderly driver behavior it will foster mandate some additional traffic control, *see* MassAG Brief at 19, 20, it is not apparent that there are insufficient resources to provide the necessary personnel. In any event, as we have indicated previously, the Licensing Board acted appropriately in rejecting the MassAG's central thesis that driver behavior will seriously impair evacuation efforts under the existing traffic control scheme. *See supra* pp. 391-98.

officers) have not been given other specific assignments in the SPRA and thus presumably could undertake traffic control duties if called upon to do so.¹⁹²

The real issue, and the one the MassAG seemingly attempts to frame by his reference to "best efforts," is whether there has been an appropriate allocation of these otherwise adequate State Police resources. The Licensing Board dismissed the MassAG's challenge by citing the lack of any regulatory requirement that the State recruit more troopers. Relative to the MassAG's concern, however, an equally compelling answer, consistent with the Commission's guidance in its *San Onofre* decision,¹⁹³ is that there is no regulatory requirement that the State permanently assign existing police resources to a particular location simply to ensure that there are no staffing delays in the event of a radiological emergency. Put another way, simply because additional police resources will be needed in a particular location in the event of a radiological emergency and will require some period of time to arrive, this potential for delay does not require that permanent police staffing in that area be "beefed up" to a degree beyond what is otherwise required to provide adequate law enforcement protection under normal circumstances. We thus find no basis for intervenor's challenge.

The MassAG also contends that an incorrect premise undergirds the Board's determination that his arguments violate the general principle that emergency planning not be based upon an isolated accident sequence. Citing the Board's findings that the delay problems he envisions will arise only for a particular accident scenario (i.e., a fast-breaking accident) with a particular beach population size (i.e., peak) and a particular type of evacuation (i.e., one involving the entire EPZ), the MassAG contends that because the staffing delays can occur in other instances as well, the Board was incorrect in resolving his concerns on this basis.¹⁹⁴

Assuming that the MassAG is correct in this regard, which is not at all apparent,¹⁹⁵ nonetheless this does not lead us to a different conclusion about

¹⁹² See Applicants' Exh. 1-A; *supra* note 179 and accompanying text. The number of officers without formal assignments could be further decreased by 11 if it is necessary for the State Police to compensate for local nonparticipation, *see* Applicants' Exh. 1, at 3-7, but this still would leave almost 90 extra officers available.

¹⁹³ *Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3)*, CLI-83-10, 17 NRC 528, 536 (1983), *rev'd in part on other grounds*, *GUARD v. NRC*, 753 F.2d 1144 (D.C. Cir. 1985).

¹⁹⁴ MassAG Brief at 30-32.

¹⁹⁵ For instance, although the MassAG asserts that staffing delay problems will occur in instances other than fast-breaking accidents, *ibid.*, because the NHRERP calls for State troopers to be mobilized to staff TCPs at the Alert stage of any radiological emergency prior to any evacuation actually being ordered, *see supra* note 31, seemingly only in those instances in which a radiological emergency progresses in less than five hours from an Alert stage to a General Emergency stage, when an evacuation would be ordered, is there any serious concern about delays resulting from traffic control staffing.

The MassAG nonetheless tries to minimize the positive impact of this early mobilization policy, declaring there still would be substantial traffic congestion and delays because the beaches also may be closed at the Alert stage, putting many additional cars on the highway. MassAG Brief at 32. His argument, however, fails to recognize that even if an early beach closing results in traffic congestion, this in no way has an adverse impact on radiological safety for the general public unless the accident is a relatively fast-breaking one. Although inconvenient, the delays

(Continued)

the adequacy of the State's traffic management plan. Planners have recognized that the potential for delayed TCP staffing exists and have compensated for this in the NHRERP by prioritizing TCPs.¹⁹⁶ As a result, once a determination is made to staff the TCPs, available officers are to be assigned first to those TCPs that are considered most critical to expediting traffic flow.¹⁹⁷ It also is apparent, as FEMA witnesses made clear, that in any emergency situation responding officials must take into account the state of existing resources, including mobilization status, in making protective action determinations.¹⁹⁸ If a particular accident sequence requires that protective action be taken when State and local emergency response efforts are not fully mobilized, officials would have to weigh whatever increased risks may be attendant upon taking a particular protective action (such as an evacuation) without having the planned response personnel in place. Thereafter, they would make a determination about what is the best course in the circumstances. By incorporating this sensible approach,¹⁹⁹ in conjunction with assigning priorities to staffing, the NHRERP provides the requisite assurance that traffic control delays will not have an adverse impact on emergency response under the NHRERP.

NECNP also challenges the Licensing Board's conclusion regarding the effect of staffing delays on ETEs by questioning the assumption about the availability of the Hampton Harbor Bridge, which was incorporated in the supplemental I-DYNEV calculations, described above.²⁰⁰ According to NECNP, by permitting evacuees to move south over the bridge, they are being allowed to move "closer" to the Seabrook facility.²⁰¹ As a result, permitting evacuation in this direction requires that the State make a choice involving "both pros and cons" and,

that people may encounter leaving the area because of either traffic congestion or TCP staffing delays due to early mobilization at the Alert stage have no adverse effect in terms of radiological safety; at that early response stage plant conditions should not have an impact on the radiological safety of persons outside the plant's boundary. See ALAB-924, 30 NRC at 363.

¹⁹⁶ NHRERP, Vol. 6 (Seabrook Station Evacuation Time Study), at 7-2.

¹⁹⁷ See Tr. 4704-05, 4731. The MassAG complains that, as of the time of his appeal, there was no staffing sequence for TCPs. MassAG Brief at 31 n.22. A draft staffing sequence was in existence at the time of the hearing and was provided to intervenors. Tr. 5801-02, 5804. Moreover, as is apparent from the State of New Hampshire Traffic Management Manual accompanying the NHRERP, of which we take official notice, see 10 C.F.R. § 2.743(i), implementing details have been finalized. See State of New Hampshire Traffic Management Manual § 2.0 (Rev. 2, Dec. 1989) [hereinafter NHTMM].

In this regard, we note that for the New Hampshire TCPs asserted by staff witness Dr. Urbanik to be the most critical in terms of their capacity to enhance vehicle flow, see Tr. 7722-23 (referencing TCPs A-HB-03, A-HB-04, and D-HA-02), under the NHTMM they have been given top staffing priority in the event of a general evacuation, see NHTMM at 2.1-3.

¹⁹⁸ Tr. 4077-79. See also FEMA Pre-filed Testimony at 52 (capacity exists to implement protective actions such as sheltering without local response organizations being fully staffed).

¹⁹⁹ See NHRERP, Vol. 4, at F-36.

²⁰⁰ See *supra* note 181 and accompanying text.

²⁰¹ NECNP Brief at 38-40. The Licensing Board described this as a movement "not very much" in the direction of the Seabrook facility. LBP-88-32, 28 NRC at 795. NECNP asserts it involves moving traffic perhaps eight- or nine-tenths of a mile closer to the plant. NECNP Brief at 40.

therefore, involves a change that the State cannot be presumed to make.²⁰² There thus being no “assurance” that this “fix” will be put into place by planning officials, NECNP requests that we remand the matter for “further review by the State of New Hampshire.”²⁰³

The State already has given further consideration to the “pros and cons” of TCP staffing at the bridge. It has assigned that TCP a staffing priority that would allow for movement to the south for a period of up to several hours if an evacuation starts before full TCP staffing has been accomplished by State troopers.²⁰⁴ The State thus has done what NECNP seeks, i.e., studied the problem and made a determination about what is the proper course to implement. In the circumstances, a remand for further consideration would serve no useful purpose.²⁰⁵

B.1. Another matter in controversy before the Licensing Board was the question of the proper calculation of the ETE for evacuation of the beach population within the EPZ on sunny summer weekends, the time when the beach population would be at its greatest.²⁰⁶ The focus of the parties’ dispute was the appropriate figure to assign for the number of vehicles occupying the beach

²⁰² *Id.* at 39.

²⁰³ *Id.* at 40.

²⁰⁴ In the NHTMM, during the peak beach season of May 15 to September 15, State Police staffing for the Hampton Bridge TCP (which is designated in the NHTMM as TCP “A-HB-01,” see NHTMM at 3.0-68 to -69) is given 16th or 17th priority. NHTMM at 2.1-3 to -8, 2.1-10 to -16. On the basis of Captain Sullivan’s testimony concerning availability of State troopers, see *supra* notes 177-78 and accompanying text, this would mean that in a fast-breaking accident, beach traffic would not be discouraged from evacuating south across the bridge for at least the first two hours following an order to staff the TCPs. Indeed, in the case of a beach-only evacuation, the Hampton Bridge TCP will not be established. See NHTMM at 2.1-9.

²⁰⁵ NECNP also opines that there may be some question whether the State should choose to allow traffic to move south, as both intervenors’ and applicants’ experts agreed it would if staffing for the bridge TCP was delayed. See LBP-88-32, 28 NRC at 794. As support for this assertion, NECNP declares that evidence on beach vehicle counts “suggests” that vehicle distribution is not a constant. NECNP Brief at 39. Further, NECNP hypothesizes that allowing movement south might be improper if the beach traffic distribution is heavier to the south at the time an evacuation is ordered. *Ibid.* Of course, in order to have this distribution information, it is necessary, as NECNP also urges, to establish an extensive “real-time” traffic monitoring system for the Seabrook beach area. *Id.* at 39 n.22.

NECNP asserts that, because evacuation times are so highly variable depending upon traffic flow, weather, and other factors, to aid decisionmakers in arriving at appropriate determinations about the necessary protective actions in any circumstance, applicants and/or the State of New Hampshire should be required to establish a computerized traffic monitoring system that can be used to compute “real-time” ETEs on the basis of actual traffic counts in the beach area and elsewhere. Putting aside the fact that there is no requirement in NUREG-0654 for such an ETE calculation system, see Tr. 7742, and the fact that the ETEs provided in the NHRERP, which encompass a number of different traffic and weather scenarios, are within the scope of NUREG-0654 guidance on ETE calculation, we are not convinced on the basis of the record before us that such a system would have the benefits intervenor ascribes to it. As was noted by Dr. Thomas Urbanik, the staff’s expert witness on traffic management matters whose qualifications are discussed more fully *infra* at note 220, the imperfections in current computer models create a real concern about the practicality of intervenor’s suggestion. Tr. 7743. Nonetheless, we do commend to the attention of State planning officials Dr. Urbanik’s comments on the effectiveness of increased traffic monitoring as a tool for providing a better generic understanding of beach traffic patterns that may contribute ultimately to enhancement of the existing ETEs. Tr. 7738-39.

²⁰⁶ In the ETEs for the NHRERP, this is denoted as Scenario 1 for Region 1. See NHRERP, Vol. 6, at 10-2 to -3.

area, an important input for calculating the ETEs for the beach population.²⁰⁷ Ultimately the Licensing Board determined that a figure of 31,000 vehicles was appropriate for the beach population ETE calculations.²⁰⁸ Intervenor NECNP disputes the validity of this figure, arguing that intervenors' evidence, and the Board's own statements, establish that the "peak" vehicle count used for ETE calculations should be significantly in excess of that amount.²⁰⁹

NUREG-0654 guidance on ETE development states that, in producing ETEs, planners should include "[e]stimates of transient populations . . . such as peak tourist volumes."²¹⁰ According to NECNP, "peak tourist volume" for the Seabrook beach area should be calculated based upon the assumption that all real estate available for parking will be fully utilized.²¹¹ Using this "maximum available parking space" approach, which NECNP asserts was utilized by applicants initially,²¹² intervenors argued before the Licensing Board that, based on their aerial photographs taken on July 5 and 19, 1987, the figure of 38,825 vehicles should be used for ETE calculations.²¹³

In contrast, applicants claimed that an appropriate method for calculating "peak tourist volume" was to identify the number of vehicles in the beach area on a "representative peak day." According to applicants, this method is based upon an actual count of vehicles and unfilled but delineated noncurb parking spaces in the beach area on a midsummer weekend day with "good" beach weather, during the midafternoon period when there was likely to be maximum traffic.²¹⁴ Before the Board, applicants proffered July 18, 1987, as a "representative" peak day and contended that, at the early afternoon time (approximately 2 p.m.) at which beach population is at its greatest, there were 29,293 vehicles at the beach.²¹⁵

The Licensing Board accepted both applicants' assertion that July 18 was a representative peak day and their parked vehicle count for that date; however, the Board also declared that evidence in the record supported increasing the vehicle population by approximately 1500 to include vehicles estimated by

²⁰⁷ Because the NHRERP ETEs are based essentially upon vehicle trips, the number of vehicles in the beach area that must be evacuated, rather than the number of people in the vehicles, becomes a central factor. See LBP-88-32, 28 NRC at 784.

²⁰⁸ *Id.* at 802.

²⁰⁹ NECNP Brief at 27-36.

²¹⁰ NUREG-0654, App. 4, at 4-3.

²¹¹ See NECNP Brief at 28.

²¹² *Ibid.* (citing NHRERP, Vol. 6, at 10-15).

²¹³ See LBP-88-32, 28 NRC at 799. This figure of 38,825 can be broken down into 24,664 vehicles in the New Hampshire portion of the EPZ and 14,161 in the Massachusetts portion of the EPZ. See ALAB-924, 30 NRC at 362 n.124.

²¹⁴ Applicants' Direct Testimony No. 7, at 30-31; Tr. 7395.

²¹⁵ See LBP-88-32, 28 NRC at 797-98. Because the aerial photographs used by applicants' consultant to count parked cars were taken between noon and 1:20 p.m., Tr. 5884-85, the actual vehicle count of 26,850 was increased to compensate for the increase in beach traffic that would be expected to occur toward 2 p.m., when beach traffic is generally acknowledged to be at its height. Applicants' Direct Testimony No. 7, at 30-38.

NRC staff expert Dr. Thomas Urbanik to be in transit (rather than parked).²¹⁶ This count, apparently rounded to the nearest thousand vehicles, produced the figure of 31,000 vehicles accepted by the Licensing Board as the number for a “reasonably expectable peak occupancy.”²¹⁷ NECNP now asserts that the Licensing Board’s acceptance of applicants’ methodology (and the resulting vehicle count) rather than intervenors’ “maximum available parking space” approach was without foundation or explanation and, therefore, was arbitrary and capricious.²¹⁸ Applicants and the staff contest this assertion, arguing that the evidence before the Board fully supported its determination.²¹⁹ Ascertaining the size of a vehicle population so potentially variable as that at a popular beach in the peak summer season is, at best, a difficult endeavor. We find, however, that the Licensing Board’s conclusions about the appropriate method in this instance are reasonable and supported by the record.

In accepting applicants’ proposed vehicle estimates in lieu of intervenors’ figures based on the maximum available parking, the Licensing Board relied upon the testimony of staff traffic planning expert, Dr. Urbanik.²²⁰ Dr. Urbanik rejected the intervenors’ view that an ETE should be computed on the assumption that all available parking spaces might be filled. In his expert opinion, filling all parking capacity was an occurrence that likely would never come to pass because of the dynamics of the beach area parking situation.²²¹ According to Dr. Urbanik, in any parking system in which there is vehicle turnover, which there clearly would be at the beach as people come and go, there will always be vacant spaces. Thus, the number of parking spaces that might be available is not a true indicator of the actual number that will be occupied at any one time.²²² In lieu of intervenors’ maximum parking capacity methodology, Dr. Urbanik supported the applicants’ approach whereby the appropriate “peak” vehicle figure is that having a “reasonable expectation to occur on a hot summer day.”²²³

As Dr. Urbanik’s testimony suggests, the weakness in intervenors’ “maximum available parking space” method is that, failing to provide any concrete link between the existence of parking space and the reality of how many vehicles

²¹⁶ LBP-88-32, 28 NRC at 798.

²¹⁷ *Id.* at 798, 802.

²¹⁸ NECNP Brief at 29.

²¹⁹ Applicants Brief at 22-23; NRC Staff Brief at 63-64.

²²⁰ LBP-88-32, 28 NRC at 798. Dr. Urbanik, who has a master’s degree in transportation engineering and a doctorate in civil engineering, taught transportation engineering and planning, traffic engineering, and highway design at Texas A&M University and was transportation operations program manager at the University’s Transportation Research Institute at the time he testified. Curriculum Vitae of Thomas Urbanik II, fol. Tr. 7372. He has testified on ETE-related matters on behalf of the NRC staff in at least five other NRC licensing proceedings. *Ibid.*

²²¹ Tr. 7385-88.

²²² Dr. Urbanik testified that because of the turnover dynamic, between 10% and 20% of the overall parking capacity will not be utilized even if the traffic flow into the parking area is at a maximum. Tr. 7387-88.

²²³ Tr. 7394.

actually occupy that space during a "peak" period, this approach tends to overestimate the number of vehicles involved. Illustrative of this flaw is intervenors' failure to establish any instance when 38,000 plus vehicles have been at the beach area on a summer weekend day. Instead, as the Licensing Board correctly pointed out, in their various attempts to count vehicles neither applicants nor intervenors have tallied more than 27,000 vehicles actually at the beach.²²⁴ The Licensing Board thus acted reasonably in declining to adopt a method that, through likely overestimation of the vehicle count, would deprive the ETE of much of its practical utility.

By the same token, because it does not contain this potential for overestimation, we find no error in the Licensing Board's acceptance of applicants' method of determining the "reasonably expectable occupancy." There clearly are fluctuations in beach traffic from one midsummer weekend day to the next. Nonetheless, based principally as it is upon the more tangible foundation of an actual vehicle count rather than estimates of how much parking is available, applicants' method seemingly provides response officials with an ETE derived from much more realistic (and thus less likely to be overestimated) information.²²⁵ Moreover, as Dr. Urbanik also suggested, because traffic flow dynamics tend to establish a finite range within which vehicles can enter the beach area during the late-morning to early afternoon "peak" period,²²⁶ if the "representative" day is appropriately chosen the resulting vehicle count does not foster a diametric concern about substantial underestimation. Accordingly, NUREG-0654's guidance to calculate ETEs on the basis of "peak tourist volumes" is well served by the use of the "reasonable expectable occupancy" method and we find the Licensing Board committed no error in determining that applicants properly could utilize it.

Intervenor NECNP also questions whether the Licensing Board acted correctly in accepting July 18, 1987, as the representative peak day.²²⁷ This determination likewise is supported by the record. As the Board noted, the evidence showed that on this midsummer day the weather was sunny and warm with temperatures in the mid-80s.²²⁸ Media reports from various sources indi-

²²⁴ LBP-88-32, 28 NRC at 802.

²²⁵ The Licensing Board recognized that the vehicle figure produced from applicants' July 18 survey likely was not the "peak of the peaks." *Id.* at 798. It suggested that this number would be in the range of 35,000 to 36,000 vehicles, based upon a 90% occupancy of the nearly 39,000 parking spaces identified by intervenors. *Id.* at 801. This "peak of the peaks" figure, however, suffers from the same lack of a verified factual basis as the parking space estimate upon which it is based. *See supra* pp. 416-17. While informative, as the Licensing Board suggested, *see* LBP-88-32, 28 NRC at 798, 803, it also is less probative than the figures generated by applicants' survey of the actual beach vehicle population.

²²⁶ *See* Tr. 7396-401.

²²⁷ NECNP Brief at 29.

²²⁸ Applicants' Direct Testimony No. 7, at 27; Tr. 6083. As was noted by Gordon R. Derman, the president of the company that conducted the aerial photographic survey for applicants, although an airplane and crew were ready initially to take the beach photographs on the weekend of July 4, 1987, the survey was not conducted then

(Continued)

cated there was a heat wave with record beach crowds during this period.²²⁹ Applicants' planning officials also testified that data from traffic counters located on beach routes were similar to those recorded by counters operated on a peak traffic day in 1983 when traffic measurements were being taken.²³⁰ This evidence amply demonstrates that this July weekend day was a "representative peak day" during which beach traffic was within the general range that could be expected during the height of the beach season.

2. Completing its challenge to the Licensing Board's determination on the appropriate beach vehicle count, intervenor NECNP questions the Board's endorsement of a vehicle population of 31,000 for that date.²³¹ In addition to adopting applicants' figure of 29,293 observed parked vehicles and requiring that an additional 1500 vehicles be included to compensate for vehicles estimated to be in transit on the roadways (a requirement with which applicants do not quarrel), the Licensing Board also judged that there would have been approximately 2000 vehicles in covered parking spaces that were not accounted for in the applicants' figures.²³² NECNP declares that in its final figure of 31,000 vehicles, the Licensing Board nonetheless erred because it failed to include a substantial portion of these hidden vehicles.

We too are troubled by the Licensing Board's action in this regard. In its decision, the Board declared:

Intervenors presented *convincing un rebutted* testimony based on field observations that there are in excess of 2200 parking spaces in the EPZ beach areas which are not observable in vertical aerial photos because they are in under-building parking areas, garages, and carports. It is not unreasonable to assume that on reasonably busy beach days 90%, or about 2000, of these vehicle spaces would be occupied. Together, the 29,300 parked vehicles seen, the 1500 vehicles seen on the roads, and 2000 more that likely were parked in spaces hidden from view, total 32,800 vehicles that were likely present in the beach areas on July 18, 1987.²³³

Yet, in subsequently adopting the figure of 31,000, the Board provided no specific explanation of why it did not include the entire number of "obstructed view" vehicles described above.²³⁴

As the Licensing Board recognized, ETEs "should be as accurate as reasonably achievable under the state of the art, but with due consideration also given

because, after consultation with applicants' planning personnel, it was determined that the weather conditions were not optimal for having a large beach population and obtaining good photographs. Tr. 5869. Conditions also were not optimal on the next weekend, so it was not until the third weekend in July, when weather conditions were appropriate, that the photographs were taken. Tr. 5870-72.

²²⁹ Tr. 6075.

²³⁰ Applicants' Direct Testimony No. 7, at 27; Tr. 6082-84.

²³¹ NECNP Brief at 30-31.

²³² LBP-88-32, 28 NRC at 801-02.

²³³ *Id.* at 801 (emphasis added and citations omitted).

²³⁴ *See id.* at 802.

to their predicted use.²³⁵ We recognize that ETEs for the beach population are less critical in the case of Seabrook because, in most instances, the protective action of choice will be evacuation.²³⁶ Nevertheless, given the Licensing Board's determination, in consonance with the suggestion of staff witness Dr. Urbanik, that it would include 1500 vehicles in transit that were not reflected in applicants' initial vehicle figure, and the Board's categorization of the intervenors' evidence on hidden vehicles as "convincing" and "unrebutted," its unexplained exclusion of the additional hidden vehicles is an omission that must be rectified.²³⁷ We will, therefore, remand this matter with the direction that, in addition to the vehicles in transit required by the Board to be included,²³⁸ the Board should direct the applicants to incorporate within the appropriate ETE calculations the number of vehicles hidden from aerial observation as set forth in the Board's findings in ¶ 9.120 of its decision.²³⁹

Because full-power authorization for the Seabrook Station has been made effective,²⁴⁰ in remanding this matter we must consider the impact of our action upon that authorization.²⁴¹ In accordance with 10 C.F.R. § 50.47(c)(1), we find that the existing licensing authorization need not be vitiated. As we

²³⁵ *Id.* at 778.

²³⁶ See ALAB-924, 30 NRC at 363.

²³⁷ Although Dr. Urbanik expressed some doubts about the validity of intervenors' figures for hidden parking, Tr. 7513-14, the Licensing Board's characterization of intervenors' evidence as "unrebutted" leads us to conclude that as the trier of fact it did not find Dr. Urbanik's testimony on this score persuasive.

²³⁸ NECNP also complains that the Licensing Board erred when, instead of directing the State to adopt an amended set of ETEs, it merely directed that revised ETEs be submitted by applicants to the State. NECNP Brief at 40-41. The Licensing Board's directive is consistent with 10 C.F.R. Part 50, App. E, § IV, and NUREG-0654 Criterion IIJ.8, which impose upon an applicant the task of ETE preparation. Moreover, because the guidance in NUREG-0654 suggests that there is some independent State responsibility to incorporate these ETEs, NUREG-0654 Criterion IIJ.10.1-m, we find no practical basis for a concern that the ETEs revised by the applicants will not be incorporated by the State. In fact, the State has revised the ETEs as a result of the Licensing Board's directive in LBP-88-32, see *infra* note 239, and we have no reason to believe that a similar result will not obtain here.

²³⁹ Before us, NECNP also challenges a "confirmatory" ETE calculation made by the Licensing Board based upon "vehicle clearance rates," which the Board found in "good agreement" with intervenor videotape evidence on summer weekend vehicular traffic congestion leaving the beach areas. NECNP Brief at 31-33. As the applicants note, although the Board's opinion did contain misstatements concerning the vehicle per minute rate (686 and 687 rather than 68.6 and 68.7), the final result from its calculations was mathematically correct. Applicants Brief at 23 n.5. Given the Board's direction that ETE revisions by applicants were necessary, it is not apparent why it provided its own calculations based upon a method other than the applicants' accepted I-DYNEV model. Nonetheless, we note that the Board's ETE calculation of seven hours and 32 minutes is close to the revised I-DYNEV calculation of seven hours and 35 minutes resulting from the calculations undertaken to implement the Licensing Board's directive to add the vehicles in transit. Compare LBP-88-32, 28 NRC at 802 with Seabrook Station Evacuation Time Study, at 10-23 (Rev. 2, Dec. 1989) (Scenario 1/Region 1). Nor do we find, as NECNP asserts, that this time estimate is "illogical" in light of intervenors' videotape evidence. NECNP Brief at 31-33. The anecdotal nature of that evidence makes it of limited use as a tool for calculating or comparing projected ETEs. In any event, to the degree it is useful to make comparisons for ETE purposes on the basis of data other than the I-DYNEV calculations, we find much more compelling the fact that the vehicle figure that applicants are to utilize under our remand agrees roughly with the total vehicle number of 33,000 that intervenors' witness Dr. Thomas Adler put forth as the appropriate figure for beach vehicles on July 18, 1987. See Tr. 7341-42.

²⁴⁰ CLI-90-3, 31 NRC at 223.

²⁴¹ *Limerick*, ALAB-845, 24 NRC at 234; *Limerick*, ALAB-836, 23 NRC at 520; see CLI-90-3, 31 NRC at 230 & n.10.

noted previously, the use of evacuation as a protective action for the beach population in almost all instances substantially limits the possibility that the ETEs being recalculated will be utilized for their principal purpose of aiding in protective action decisionmaking.²⁴² Moreover, the additional calculations required to correct the ETE deficiency identified should not require significant time or resources to complete. The correction required need only be incorporated by applicants in additional I-DYNEV computer calculations and the results included in the NHRERP, all of which doubtless can be completed promptly.²⁴³ Further, because the additional vehicles that must be considered amount to only about five percent of the total embodied in existing ETE calculations and ETE sensitivity to such a small incremental change does not appear great, we do not anticipate that the additional calculations will result in a profound change in the existing ETEs. Accordingly, given that the deficiency identified is not significant, no suspension of license effectiveness is necessary or appropriate.

IV. OTHER MATTERS

In addition to its challenges to the Licensing Board's findings in LBP-88-32, intervenor SAPL asserts that the Board erred in rejecting two of its contentions prior to hearing.²⁴⁴ We disagree and affirm the Licensing Board's action in both instances. Further, in light of the Commission's statements in CLI-90-2 concerning emergency planning's status as an "adequate protection" standard under AEA section 182, some further discussion is necessary regarding an intervenor claim that several aspects of the emergency response planning under the NHRERP fail to conform to this standard.

A. With its Contention 4, SAPL sought to challenge the applicants' compliance with the requirement of 10 C.F.R. § 50.47(b)(12) that "[a]rrangements are made for medical services for contaminated injured individuals." Specifically, that contention stated:

The New Hampshire State, local and host community plans fail to meet in adequate fashion the requirements that provisions be made for medical treatment of contaminated injured individuals as set forth at 10 C.F.R. § 50.47(b)(12) and NUREG-0654 ILL.1 and L.3.²⁴⁵

²⁴² See *supra* note 236 and accompanying text.

²⁴³ In this regard, we observe that before the Licensing Board intervenors apparently abandoned any challenge to the validity of the I-DYNEV computer program, *see* LBP-88-32, 28 NRC at 781, and have not questioned the efficacy of the program before us.

²⁴⁴ SAPL Brief at 65-67.

²⁴⁵ [SAPL's] Second Supplemental Petition for Leave to Intervene (Feb. 21, 1986) at 3-4 [hereinafter SAPL's Second Supplemental Petition].

According to SAPL, because the statement of basis accompanying its contention demonstrated that the local hospitals listed in the NHRERP as capable of treating "contaminated injured individuals" had inadequate capacity, the Licensing Board's threshold rejection of the contention improperly deprived it of the opportunity to litigate the factual issues surrounding this alleged deficiency.

In ruling on this contention,²⁴⁶ the Licensing Board relied on a Commission policy statement issued in the wake of the decision of the United States Court of Appeals for the District of Columbia Circuit in *GUARD v. NRC*.²⁴⁷ In *GUARD*, the court rejected the Commission's interpretation of section 50.47(b)(12) in the *San Onofre* licensing proceeding as requiring only the submission by an applicant of a listing of medical facilities in the vicinity of a reactor site capable of treating contaminated injured individuals and remanded the matter for further proceedings.²⁴⁸ In a May 1985 interim policy statement, the Commission declared that, during the period in which it would decide how to respond to the court's remand, licensing boards could find an applicant was entitled to an operating license if the applicant (1) complied with the Commission's pre-*GUARD* interpretation of section 50.47(b)(12) as requiring only a list of medical facilities, and (2) committed to full compliance with whatever further requirements might be imposed by the Commission's response to *GUARD*.²⁴⁹ Noting that the applicants had submitted a letter committing to full compliance with the Commission's response to the *GUARD* remand, the Licensing Board concluded that in line with the policy statement the SAPL contention must be rejected.²⁵⁰

Before us, SAPL makes no challenge to the Commission's policy statement. It is apparent, however, that at the time the contention was rejected, in compliance with the Commission's pre-*GUARD* guidance on the measures necessary to comply with section 50.47(b)(12), there was a list in the NHRERP of local medical facilities capable of administering care to contaminated injured individuals.²⁵¹ In addition, applicants had provided the Licensing Board with evidence of their commitment to comply fully with any Commission requirements that might be imposed as a result of its response to the *GUARD* remand.²⁵² Thus, under the conditions established by the Commission's policy statement and un-

²⁴⁶ See Memorandum and Order of Apr. 29, 1986, at 83 (unpublished).

²⁴⁷ 753 F.2d 1144 (D.C. Cir. 1985), *rev'd in part San Onofre*, 17 NRC 528 (1983).

²⁴⁸ *Id.* at 1146, 1149-50.

²⁴⁹ 50 Fed. Reg. 20,892, 20,893 (1985). See also 51 Fed. Reg. 32,904 (1986) (declaring that 1985 policy guidance remains in effect until new guidance is issued, which was to be in November 1986). In its 1985 policy statement, the Commission indicated that an applicant that met these two conditions would be in compliance with 10 C.F.R. § 50.47(c)(1) and thus "entitled to [s] license condition[ed] o[n] full compliance with the Commission's response to the *GUARD* remand." 50 Fed. Reg. at 20,893 (footnote omitted).

²⁵⁰ Memorandum and Order of Apr. 29, 1986, at 83.

²⁵¹ See SAPL's Second Supplemental Petition at 4 (citing NHRERP, Vol. 1, § 2.8 (Dec. 1985)).

²⁵² Letter from J. DeVincentis to V. Noonan (Mar. 12, 1986), fol. Tr. 2353.

challenged by SAPL, the Licensing Board's action dismissing SAPL Contention 4 was appropriate.²⁵³

B. SAPL's other concern is with the Licensing Board's grant of applicants' motion for summary disposition of SAPL Contention 5. This contention, which challenged the adequacy of radiation monitoring planning, asserted:

The New Hampshire State and local plans are deficient in that they do not ensure that there will be adequate personnel or the timely arrival of personnel trained in radiological monitoring in the plume exposure EPZ following a release of radiation from Seabrook Station. Neither is there assurance that monitoring can be carried on for the required time frame. Therefore, the requirements of 10 CFR §50.47(a)(1), §50.47(b)(1), §50.47(b)(8), §50.47(b)(9), and NUREG-0654 III.7, I.8. and I.11 and I.A.4. are not met.²⁵⁴

In support of their May 20, 1986 summary disposition motion, applicants submitted affidavits from New Hampshire Division of Public Health Services (PHS) Director William T. Wallace, Jr., and James A. MacDonald, the Radiological Assessment Manager for the Seabrook Station.²⁵⁵ On June 9, 1986, SAPL responded with a letter authored by its consultants Drs. Richard Piccioni, Nancy Eyler, and Steven Meshnick, supporting SAPL's opposition to applicants' motion.²⁵⁶ Based on these filings, the Licensing Board concluded that there were no material facts at issue relative to SAPL Contention 5 and that applicants were entitled to summary disposition.²⁵⁷

SAPL assigns error to this ruling on the ground of the Licensing Board's purported failure to find that material factual issues existed despite the stated opinion of its "highly qualified" affiants that "actions taken by the State would occur too late to be effective."²⁵⁸ This assertion, however, does not account for the totality of the information that was before the Licensing Board.

In his affidavit in support of applicants' motion, PHS Director Wallace declared that State monitoring teams would be available for deployment from the

²⁵³ The Licensing Board's action in response to the policy statement did not necessarily foreclose intervenor SAPL from further pursuing the issue of applicants' compliance with section 50.47(b)(12). On November 13, 1986, after consultation with the NRC and in response to the *GUARD* decision, FEMA issued Guidance Memorandum MS-1, Medical Services, providing interpretation and clarification of section 50.47(b)(12) and associated guidance for inclusion in NUREG-0654. Thereafter, acting on applicants' commitment to carry out this guidance, revisions were made to the NHRERP that were determined by FEMA in December 1988 to conform with Guidance Memorandum MS-1. See App. Exh. 43D, at 113, 114, 138. SAPL made no attempt, however, in response to either the new regulatory guidance, the plan revisions, or FEMA's findings relative to the revisions, to present a new contention alleging any deficiencies in the NHRERP with regard to medical services for contaminated injured individuals.

²⁵⁴ SAPL's Second Supplemental Petition, at 5.

²⁵⁵ Applicants' Motion for Summary Disposition of SAPL Contention No. 5 and NECNP Contention RERP 10 (May 20, 1986), Affidavit of William T. Wallace, Jr. [hereinafter Wallace Affidavit]; *id.*, Affidavit of James A. MacDonald re SAPL Contention No. 5 and NECNP Contention RERP 10 [hereinafter MacDonald Affidavit].

²⁵⁶ SAPL's Response to Applicants' Motion for Summary Disposition of SAPL Contentions 5, 7, 14 and 17 and Motion for Partial Summary Disposition of SAPL Contentions 18 and 25 (June 9, 1986), Letter of Drs. Piccioni, Eyler, and Meshnick (June 9, 1986) [hereinafter Piccioni, Eyler, Meshnick Letter].

²⁵⁷ Memorandum and Order of Nov. 4, 1986, at 17-21 (unpublished).

²⁵⁸ SAPL Brief at 67.

Incident Field Office within one and one-half hours from the declaration of an Alert.²⁵⁹ Intervenor's affiants disputed whether the timing of this State response would be adequate to provide monitoring information necessary to make a timely protective action decision in the event of a fast-breaking accident.²⁶⁰ They did not, however, challenge the validity of Director Wallace's statements in his affidavit that, prior to the arrival of DPHS monitoring teams, the State will base its assessment of accident conditions and any necessary protective response recommendations on results of monitoring and dose projections provided by the utility.²⁶¹ Nor did they address the statements of applicants' Radiological Assessment Manager MacDonald that, within sixty minutes after the declaration of an Alert, the utility can deploy three field monitoring teams and, in any event, has the capability to deploy a monitoring team for the perimeter of the facility from the Seabrook Station control room immediately upon the declaration of an emergency.²⁶²

These statements by applicants' affiants demonstrate that the anticipated limited delay in deployment of State offsite monitoring teams will not impair significantly the ability of emergency response officials to obtain the information needed to make protective action determinations in a fast-breaking accident. Because SAPL failed to controvert (and thus effectively admitted) these material facts as established by applicants,²⁶³ the Licensing Board properly granted summary disposition in applicants' favor on SAPL Contention 5.

C. As a final matter, based upon our study of the Commission's determination in CLI-90-2, which responded to a question we certified in ALAB-922 concerning the admission of certain MassAG testimony on dose reductions/dose consequences alleged to arise under the NHRERP in the event of certain accidents, we find some additional, albeit brief, explanation is necessary relative to a matter raised by intervenor MassAG. As we observed in ALAB-922, the MassAG has questioned whether several aspects of emergency planning under the NHRERP, most notably its provisions regarding sheltering and evacuation/ETEs, provide "adequate protection" under AEA section 182 and "reasonable assurance that adequate protective measures can and will be taken" under section 50.47(a)(1).²⁶⁴ With respect to these matters, the MassAG asserts that the plan (and the Licensing Board's assessment of the plan) generally reflects an improper "best efforts under the circumstances" approach rather than the careful consideration of the risk to the public health and safety that he contends

²⁵⁹ Wallace Affidavit at 2.

²⁶⁰ Piccioni, Eyler, Meshnick Letter at 2.

²⁶¹ Compare *ibid.* with Wallace Affidavit at 2.

²⁶² Compare Piccioni, Eyler, Meshnick Letter at 2 with MacDonald Affidavit at 1-2.

²⁶³ See 10 C.F.R. § 2.749(a).

²⁶⁴ 30 NRC 247, 255 n.37 (1989).

the "adequate protection" standard of AEA section 182 (and the "reasonable assurance" standard of section 50.47(a)(1)) require.

In ALAB-922, we found it unnecessary to address this "best efforts" claim separately. We concluded that, like the testimony, it was anchored in the MassAG's premise that a risk/dose consequence analysis was required under AEA section 182.²⁶⁵ Thereafter, in discussing intervenor arguments in support of admission of the testimony, we rejected the assertion that the testimony was admissible to show that the requisite "adequate protection" was not provided by the NHRERP, concluding that emergency planning was not subject to the first tier, "adequate protection" standard for which such a risk-based analysis might be appropriate, but rather was under the second tier, "extra-adequate protection" standard of AEA section 161.²⁶⁶ In CLI-90-2 the Commission corrected our misapprehension in this regard.²⁶⁷ This provides the MassAG little solace, however, for the Commission's disposition of his testimony makes it apparent that his "best efforts" argument likewise is misdirected.

As the Commission made clear in CLI-90-2 in holding that the MassAG's dose reduction/dose consequence testimony was not admissible, although emergency planning is indeed an "adequate protection" standard under AEA section 182, to determine whether an emergency plan provides "adequate protection," the plan must be assessed in terms of whether it meets the sixteen planning standards of section 50.47(b).²⁶⁸ Even assuming that a "best efforts" standard is being improperly applied to emergency planning under the NHRERP, which is not apparent to us, intervenor nonetheless has failed to explain how this alleged deficiency has resulted in a plan that violates any of the sixteen specific planning standards in section 50.47(b).²⁶⁹ Thus, in accord with the Commission's decision in CLI-90-2, we need not give this matter further consideration.²⁷⁰

²⁶⁵ *Ibid.*

²⁶⁶ *Id.* at 256-57.

²⁶⁷ 31 NRC at 210-13.

²⁶⁸ *Id.* at 213, 217.

²⁶⁹ The one exception in this regard is his assertion that the limited utilization of sheltering for the beach population in the NHRERP violates the requirement of section 50.47(b)(10) that a "range of protective actions have been developed." MassAG Brief at 72-75, an argument we already have rejected. See ALAB-924, 30 NRC at 367 n.164.

²⁷⁰ The Commission's determination in this regard likewise addresses SAPL's argument, see SAPL Brief at 15-18, that with respect to the adequacy of the NHRERP, the Licensing Board erred in failing to make an overall "reasonable assurance" finding under 10 C.F.R. § 50.47(a)(1). Cf. ALAB-922, 30 NRC at 255 n.36.

Contrary to his assertions, MassAG Brief at 85, the Licensing Board also properly rejected the MassAG's additional attempt to introduce a truncated version of his dose reduction/dose consequence testimony in response to FEMA testimony on the beach population sheltering issue. Although the MassAG asserts that the FEMA testimony was itself based upon a dose consequence analysis, he provides no convincing grounds for overturning the Licensing Board's finding that the testimony was "manifestly without regard to dose consequence analysis." Tr. 11,134. Moreover, as the Commission's ruling in CLI-90-2 makes apparent, 31 NRC at 217, the Licensing Board was correct in its alternative conclusion that, even if FEMA's testimony was a dose consequence analysis, the proper course would be to exclude both the FEMA and MassAG testimony rather than to admit the MassAG's

(Continued)

Those portions of the Licensing Board's December 30, 1988 partial initial decision, LBP-88-32, 28 NRC 667, regarding "Response Personnel Adequacy," "Human Behavior in Emergencies," and "Evacuation Time Estimates (ETEs)," and unpublished Licensing Board rulings on SAPL Contentions 4 and 5 are *affirmed*, except that with respect to the Board's ruling on ETEs we *reverse* and *remand* for further calculations relative to the "hidden vehicles" described in ¶ 9.120 of LBP-88-32.

It is so ORDERED.

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

responsive testimony. Tr. 11,133. The Board found no reason to consider taking this step with respect to the FEMA testimony, however, because none of the parties offered a motion requesting that action. Tr. 11,133-34.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ivan W. Smith, Chairman
Dr. Richard F. Cole
Dr. Kenneth A. McCollom

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(ASLBP No. 82-471-02-OL)
(Offsite Emergency Planning)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

May 3, 1990

MEMORANDUM AND ORDER
(Ruling on Certain Remanded and Referred Issues)

INTRODUCTION

In ALAB-924, 30 NRC 331 (1989), the Appeal Board remanded four issues to this Board concerning: (1) Letters of Agreement, (2) the 1986 Special-Needs Survey, (3) Evacuation Time Estimates for Advanced Life Support Patients, and (4) Implementation of the Sheltering Option.¹ Also, in an unpublished order

¹ The remanded issues were on review from the partial initial decision on the New Hampshire Radiological Emergency Response Plan, LBP-88-32, 28 NRC 667 (1988).

dated March 1, 1990, the Appeal Board referred to this Board two Intervenor motions, dated February 6 and 28, 1990, to reopen the record on sheltering issues.

In the following order the Board:

1. Grants leave to the Intervenor Seacoast Anti-Pollution League (SAPL) to withdraw from the proceeding before this Board;
2. Dismisses, as abandoned by SAPL, the Letters of Agreement and Special-Needs Survey issues. The Board also rules that, in any event, these issues have been resolved on the merits;
3. Finds that SAPL created the corpus of the Advanced Life Support Patient issue during its appeal, and to that extent, SAPL has abandoned it. However, the issue now has a life independent of SAPL. Therefore the Board provides for its further resolution;
4. Denies Intervenor's motions to reopen the record on the issue of sheltering the beach population; and
5. Provides for further resolution of the sheltering issue as remanded by ALAB-924. The Board also refers certain rulings to, and seeks further guidance from, the Appeal Board on the remanded sheltering issue.

GENERAL BACKGROUND

ALAB-924 and our subsequent actions spawned a very large number of pleadings before this Board, the Appeal Board, the Commission, and the D.C. Circuit Court of Appeals. But, for the purposes of today's order, it is sufficient that we review only a relatively few of the events following ALAB-924.

Soon after ALAB-924 was rendered, we issued the partial initial decision on the Seabrook Plan for the Massachusetts Communities wherein we authorized the issuance of a full-power operating license for the Seabrook Station. We noted there that ALAB-924 and the pendency of other issues did not preclude the immediate issuance of the operating license and we stated that we would explain our reasons for that conclusion later.²

The explanation was published on November 20, 1989.³ On January 11, 1990, in an unpublished order, we invited interested parties to advise the Board on how to proceed in accordance with ALAB-924 and to report how the parties propose to participate.

² LBP-89-32, 30 NRC 375, 651 n.87 (1989).

³ Memorandum Supplementing LBP-89-32. LBP-89-33, 30 NRC 656 (1989).

SAPL promptly informed the Board by letter that the Board should not expect SAPL to have an interest in further proceedings before the Board.⁴ On that account Applicants moved to dismiss as abandoned the remanded issues, 1 through 3, *supra*, which, according to Applicants, depended upon SAPL Contentions 15, 18, and 25.⁵ The NRC Staff supported Applicants' motion.⁶ SAPL opposed the motion but confirmed formally that it would not participate in the remanded proceeding unless the license authorization contained in LBP-89-32 is reversed or vacated.⁷ Other Intervenor also opposed the motion to dismiss the remanded issues.⁸

On February 1, Applicants also responded to the Board's order of January 11. They focused on the remanded issue of implementing the sheltering option for the general beach population. According to Applicants, an October 1988 revision to the NHRERP eliminated sheltering (in "ERPA A") as an option under the first of two situations contemplated by the Appeal Board.⁹ That action ultimately added a new dimension to the controversy concerning sheltering the beach population and brought into question certain premises of the remanded issue. Therefore we treat the background of the sheltering issues separately and in connection with our opinion on that matter below.

The Commission addressed all four issues remanded by ALAB-924 in its Memorandum and Order permitting the Director of NRR to issue the license authorized by LBP-89-32. CLI-90-3, 31 NRC 219 (1990).

DISCUSSION

SAPL's Contentions

First, as to SAPL's participation in the proceeding before us, we note that its early notice to the Board was to the effect that it would not participate on any issue not related to licensing.¹⁰ The effect of the Commission's order of March 1 authorizing the license was to foreclose the condition upon which SAPL would

⁴ Letter from Robert A. Backus, Esq., to Members of Board, January 19, 1990, enclosing opening statement of SAPL.

⁵ Applicants' Motion to Dismiss Abandoned Remand Issues, January 26, 1990.

⁶ NRC Staff's Response to Applicants' Motion to Dismiss Certain Remanded Issues, February 12, 1990.

⁷ Seacoast Anti-Pollution League's Objection to Applicants' Motion of January 26, 1990, February 1, 1990.

⁸ Intervenor's Opposition to Applicants' January 26 Motion to Dismiss Abandoned Remand Issues, February 7, 1990.

⁹ Applicants' Response to Licensing Board Order of January 11, 1990, at 10, February 1, 1990. ERPA A is the Emergency Response Planning Area (ERPA) within a 2-mile radius of the Seabrook Station and includes the Seabrook and Hampton beaches.

¹⁰ E.g., SAPL's February 1 Objections to Applicants' Motion.

have participated.¹¹ We therefore grant leave to SAPL to withdraw and dismiss SAPL from the proceeding before this Board.

Applicants move for the dismissal of the Letters of Agreement issue, based upon SAPL Contention 15, Special-Needs Survey issue, based upon SAPL Contentions 18 and 25, and the Advanced Life Support Patient issue, based upon SAPL Contention 25. The motion is founded upon SAPL's refusal to participate in the proceeding before us, and according to Applicants, the issues have been abandoned. Motion to Dismiss, *supra* note 5. The NRC Staff supports the motion for the same reason.¹²

SAPL, however, protests that its respective contentions have now become issues with a life of their own based upon public health and safety considerations. SAPL Objection, *supra* note 7, at 2. SAPL cannot have it both ways. Having declined to assist the Board in resolving the remanded issues, it has no voice in how others should resolve them. SAPL has abandoned the issues based upon its contentions.

However, Intervenor, New England Coalition on Nuclear Pollution (NECNP) and the Commonwealth of Massachusetts argue that they had, before January 19, 1990, already adopted those issues.¹³ Their arguments depend upon unilateral actions long after the contention-admitting stage of the proceeding and even after the trial stage. In fact, the "adoption" depends upon an asserted right to appeal on all issues in the proceeding. Opposition at 3.

The Appeal Board, in *Houston Lighting & Power Co.* (South Texas Project, Units 1 and 2), ALAB-799, 21 NRC 360 (1985), addressed a situation similar to the one before us:

Under NRC procedure, however, [the withdrawal of an intervenor in a case] does serve to remove the withdrawing party's contentions from litigation. [Footnote citing *Project Management Corp.* (Clinch River Breeder Reactor Plant), ALAB-354, 4 NRC 383, 391-92 (1976)]. The Commission has made it clear, in this regard, that the mere acceptance of contentions at the threshold stage does not turn them into cognizable issues for litigation independent of their sponsoring intervenor [Footnote citing *Texas Utilities Generating Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-81-36, 14 NRC 1111, 1113-14 (1981)].

Id. at 382-83.

Nor does the Commonwealth's avowed status as an "interested State" avail to it any special power to pick up issues dropped by other intervenors. If it wishes to have issues heard in an NRC proceeding it "must observe the procedural

¹¹ See Letter from Mitzi A. Young, OGC, to Appeal Board, April 26, 1990 (operating license issued).

¹² NRC Staff's Response to Applicants' Motion to Dismiss Certain Remanded Issues, February 12, 1990.

¹³ Intervenor's Opposition to Applicants' January 26 Motion to Dismiss Abandoned Remand Issues, February 7, 1990.

requirements applicable to other participants.” *Gulf States Utilities Co.* (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 768-69 (1977).

We also understand the Intervenor to argue that their appeal from LBP-88-32, even though not expressly on the issues covered by SAPL’s contentions, somehow cloaks them with party status as to all issues appealed and remanded. That argument is not convincing. Their citation to recent rule changes (54 Fed. Reg. 3316, 3317 (Aug. 11, 1989)) does not support their statement that “each intervenor had the right to appeal on all issues in the proceeding” at the time their appeals were filed. Opposition at 3. But even assuming such a right, the fact is that NECNP and the Commonwealth did not appeal the partial initial decision respecting SAPL contentions as far as we can glean from their pleadings.

We rule, therefore, that SAPL took with it the issues pertaining to Letters of Agreement and the 1986 Special-Needs Survey when it withdrew from the proceeding before us.

In addition, the Intervenor has not provided any useful advice to this Board as to how the issues remanded by ALAB-924 should be resolved. Their response to our invitation was simply that we must conduct evidentiary hearings.¹⁴ Their reply to Applicants’ advice on the issues added argument but not assistance.¹⁵ Furthermore, as we discuss below, we believe that the concerns identified by the Appeal Board with respect to those issues have been resolved on the merits.

Letters of Agreement

With respect to the Letters of Agreement issue, Intervenor seeks to relitigate the entire issue. They provide no analysis of our discussion of that issue in LBP-89-33. The Board rules that the remanded LOA matter has been resolved by the discussion in LBP-89-33 (30 NRC at 659-62). We plan nothing further with respect to that issue.

1986 Special-Needs Survey

As to the 1986 Special-Needs Survey, the Appeal Board found that “there [were] issues of material fact relating to the survey,” the litigation of which was not properly precluded by application of the Commission’s *San Onofre* “extraordinary measures” rule.¹⁶ ALAB-924, 30 NRC at 347. On remand,

¹⁴ Response of the Massachusetts Attorney General and NECNP to Board Order of January 11, 1990, at 5-6.

¹⁵ Intervenor’s Reply to the Applicants’ Response to Licensing Board Order of January 11, 1990, February 12, 1990.

¹⁶ For a summary of the Applicants’ 1986 Special-Needs Survey and SAPL’s concerns regarding that survey, see LBP-89-33, 30 NRC at 662-67.

Intervenors argue that the Appeal Board's conclusion that the presence of disputed material facts regarding the 1986 survey requires the conduct of an evidentiary hearing to resolve these disputes. For the reasons set out below, we believe that SAPL's objections to the Special-Needs Survey were and are subject to summary disposition based on the record before the Licensing Board in 1986.

We do not believe that the Appeal Board's characterization of SAPL's 1986 concerns as "material facts" was intended to (nor could it) deprive this Board of authority to enter an otherwise appropriate order summarily resolving the dispute on remand.¹⁷ Rather, we read ALAB-924 as concluding that the apparent existence of disputed material facts regarding the methodology and structure of the 1986 Special-Needs Survey was not overcome by the "extraordinary measures" rationale initially advanced by the Licensing Board. This being the case, even if the issue had not been abandoned, we would not be required to engage in a meaningless hearing should we conclude that none of the facts SAPL desired to litigate materially impact on the specific issue before us — whether the 1986 survey was adequate for planning purposes under the Commission's emergency planning requirements.

In its 1986 Statement of Material Facts, SAPL asserted that five material facts remained in dispute regarding the 1986 survey.¹⁸ Taken together, these asserted material facts focused on the survey's methodology (including its frequency, timing, and dissemination approach) and design.¹⁹ We find that none of SAPL's five identified concerns are, in fact, material to a resolution of SAPL-18 and SAPL-25 to the extent that those contentions argued that adequate procedures to identify special-transportation-needs individuals exist.

While cast in terms of specific factual deficiencies, the gravamen of SAPL's identified material facts on the survey's frequency and dissemination methodology was that an annual, mail survey based on utility customer lists was inadequate as a matter of law. Without assertions of EPZ-specific characteristics requiring a different outcome, such generic challenges do not present material facts requiring an evidentiary hearing. While perhaps not the most exact or exhaustive of all possible research techniques, surveys of the type at issue here are an acceptable and adequate approach under the Commission's emergency plan-

¹⁷ See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-78-14, 7 NRC 952, 961 n.9 (1978) (on remand, a licensing board has the authority to enter any appropriate order in connection with the remanded proceeding).

¹⁸ See Applicants' Response to Licensing Board Order of January 11, 1990 (February 1, 1990), Attach. A.

¹⁹ See LBP-89-33, 30 NRC at 663.

ning requirements. See *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 487 (1986).²⁰

Similarly, SAPL's identified concerns as to the structure and wording of the survey form clearly do not require an evidentiary hearing. In response to almost identical challenges in *Limerick*, the Appeal Board itself needed no reference to the evidentiary record to find the *Limerick* survey form adequate.

We have examined the survey in question. [Citation omitted]. Although it could have been designed to be more "attention-grabbing," it is adequately drafted to elicit the desired response. That is, a recipient needed to do *nothing* unless a member of the household has a transportation or other special problem. If that is the case, one simply checked the appropriate boxes and returned the form in the postage paid envelope provided. . . . [W]e think this questionnaire reasonably served the purpose for which it was intended — identification of those with no transportation available in an emergency.

Limerick, 23 NRC at 488 n.10 (emphasis in original). As did the Appeal Board in *Limerick*, we find that the 1986 survey form "reasonably served the purpose for which it was intended," and that SAPL identified no disputed fact in 1986 or in response to our invitation for comment that undercuts this conclusion.

Finally, SAPL identified the timing of the survey as a material fact requiring hearing. In support, it argued that the 1986 survey, conducted initially in March 1986 (and presumably repeated every March), was inadequate because it failed to include the transient summer population.²¹ However, having found the methodology and design of the survey to be adequate as a matter of law and accepting SAPL's proposition that the survey should be sent during the summer months (i.e., the period of the highest potential concentration of special-needs individuals), no hearing would be necessary on this point even if we had

²⁰ As an aspect of its identified factual deficiencies in the 1986 survey dissemination methodology, SAPL also asserted that the Applicants' survey should have been accompanied by a public announcement program. Statement of Material Facts, Item 2. As we noted in LBP-89-33, a public announcement program was conducted in connection with the 1986 survey. 30 NRC at 665 n.11. We further note that the Appeal Board in *Limerick* found a program similar to that employed by the Applicants here to be an adequate supplement to the potential under-inclusiveness of a mail survey. *Limerick*, 23 NRC at 488.

²¹ On the question of timing, we note that the relative planning value between a summer survey and a spring survey is a close question. The purpose of any transportation-needs survey is twofold: (1) needs assessment and (2) resource allocation. While a summer survey would likely set the upper limits of the potential transportation needs, such information would be of little value in making resource allocation plans since the exact number, need, and location of such individuals would vary over time, perhaps weekly. On the other hand, while a spring survey would likely be of more value in developing resource allocation plans, it would not, as SAPL points out, include summer transients who might need such special transportation assistance.

In any case, the goal of any summer survey would be to identify a rather unique group of transients: those who had special transportation resources available to reach the EPZ and presumably plan to have such resources available to leave the EPZ but who do not have such resources available to them, either personally or as part of another population group, during their short-term stay in the EPZ. As we suggested in LBP-89-33, because we deal here with transient special-transportation-needs individuals who are a subset of a subset of the transient summer population and in the absence of any information suggesting otherwise, we believe it unlikely that any additional summer special-needs individuals will overwhelm the transportation needs presently available under the NHRERP — 150% of the identified needs based on the spring survey.

not dismissed SAPL-18 and SAPL-25 as abandoned. In our view, questions such as these fall squarely within the category of implementation matters that can properly be left to the NRC Staff. Had it become necessary to resolve SAPL's "timing" fact, the most we would have required would be for the Applicants to schedule and conduct their annual special-needs survey during the summer months of July through August of each year, leaving to the Staff the responsibility to ensure implementation of such a condition. Because no valid contention remains to support such a requirement, we impose none here.

Advanced Life Support Patients

We do not dismiss the remanded issue of the effect that the time to prepare ALS patients for evacuation would have upon evacuation time estimates for these patients. The issue remanded to the Licensing Board was distinct from the contentions SAPL litigated. Therefore the issue was not SAPL's to abandon. As we explain below, partly because of SAPL's inaccurate characterization of the issue (purportedly based upon SAPL contentions) in its brief on appeal from LBP-88-32, a new matter was decided by the Appeal Board. The Commission in CLI-90-3 expressed its own, new concerns about problems that may attend the protective action choices for ALS patients. We have, therefore, an issue that must be resolved regardless of SAPL's withdrawal. We examine the genesis and development of the remanded issue to explain why we conclude below that that issue is what the Appeal Board and Commission say it is, nothing more.

Germane to the discussion of the ALS issue are SAPL's original contentions in this proceeding. SAPL Contentions 8, 8A, and 15 raised issues concerning special-facility manpower and transportation resources. However, they are inapplicable to the ALS issue as remanded. SAPL Contention 25 states: "provisions for protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement are patently lacking."²² However, the basis for this contention reveals that the contention was concerned with issues other than evacuation times: the identification of the mobility impaired; letters of agreement with service providers; and adequate manpower and transportation resources among service providers. SAPL's Second Supplemental Petition at 30. The Board admitted the contention on those issues.²³ SAPL Contention 25 was later revised, readmitted, and limited to the bases provided in another

²² Seacoast Anti-Pollution League's Second Supplemental Petition for Leave to Intervene (with Attached Contentions), February 21, 1986, at 29.

²³ Memorandum and Order (Ruling on Contentions and Establishing Date and Location for Hearing), unpublished, April 29, 1986, at 100.

SAPL pleading dated November 26, 1986, *infra* note 25.²⁴ The revised bases again raised issues other than evacuation times: letters of agreement with host hospital facilities; discriminatory treatment of patients 55 years and older in the Exeter Hospital RERP; letters of agreement with ambulance providers; and the identification of special-needs patients.²⁵

SAPL Contention 31 alleged that the Applicants' evacuation time estimate study "does not deal realistically with the transport of transit dependent persons."²⁶ However, the basis for the contention failed to specify how the time estimates were defective. SAPL merely repeated that the time estimates for special-facility patients were "very unrealistic." SAPL's Fourth Supplemental Petition at 10. As we discuss below, while this contention could have been the basis for an attack on the NHRERP's ETE assumptions for special facilities, nowhere in the evidentiary hearing record do we find SAPL to have mounted such an attack.

Testimony concerning special-facility advanced life support patients first came to light during the evidentiary hearings on the NHRERP when SAPL adduced the "Rebuttal Testimony of Joan Pilot on Seacoast Anti-Pollution League Contentions No. 25, and Nos. 8 and 8A, and SAPL Redrafted Contention 15." More to the point, Mrs. Pilot's testimony contained the following questions and answers:

4) What is the purpose of your testimony?

My testimony is to address issues related to ambulance transport including numbers of people per ambulance, the need for ambulances for nursing home patients, and the availability of drivers.

5) In your experience, how many Advanced Life Support (ALS) patients can be transported per ambulance?

In my opinion, only one ALS patient can be transported per ambulance because of the complex nature of the care that has to be provided. I need to have a nurse accompanying the patient because during the trip only a nurse can administer medications under a written physician's order. ALS patients often have numerous intravenous lines (the range is from 1-11) and a nurse is required to monitor those. As a practical matter, it can take from 28 minutes to an hour to move the patient from the hospital bed to the ambulance stretcher. Additionally, copies of the patient's medical records can take time to gather together, but they absolutely have to go with the patient so that the receiving hospital will know what kind of care is required.

Pilot Reb., ff. Tr. 7670, at 1-2.

²⁴ Memorandum and Order (Ruling on Contentions — Revision 2 NHRERP), unpublished, February 18, 1987, at 5; Memorandum and Order (Providing Basis for and Revision to Board's Rulings on Contentions on Revision 2 of NHRERP), unpublished, May 18, 1987, at 39-40.

²⁵ Seacoast Anti-Pollution League's Contentions on Revision 2 of the NHRERP, November 26, 1986, at 27-29.

²⁶ Seacoast Anti-Pollution League's Fourth Supplemental Petition for Leave to Intervene (May 15, 1986), at 5-6.

At the end of the NHRERP portion of the evidentiary hearing, SAPL filed its proposed findings of fact and conclusions of law divided, pursuant to Board order, into general subject categories. One (Section Four), entitled "Transportation Availability and Support Services (Special Needs)," contained a direct reference to Mrs. Pilot's statement concerning ALS patients:

Witness Joan Pilot testified that it takes from 28 minutes to one hour to move an advanced life support patient from a hospital bed to the stretcher in the same room. It is not possible to prepare in advance to expedite the transport of such patients except to prepare their paper work. Moving lines, oxygen connections, tubes and the like make moving them a complicated and time consuming process.²⁷

This statement was part of a lengthy proposed finding (SAPL PF 4.1.6) alleging that New Hampshire nursing home patients required ambulance transportation instead of bed bus transportation during an evacuation. As it happened, Mrs. Pilot's statement is not offered for adoption in the "Conclusions of Fact" section of SAPL's pleading. Indeed, the only proposed conclusion of fact that bears any reference to Mrs. Pilot's testimony is SAPL Proposed Finding 4.3.2 which states in part:

Therefore, the Board finds that the allotment of *no* ambulances for nursing homes constitutes a very serious deficiency in the NHRERP such that it cannot possibly be deemed adequate.²⁸

Even more telling of the purpose of Mrs. Pilot's testimony is the fact that SAPL offered a proposed finding (6.1.26) in Section 6 of its pleading (Evacuation Time Estimates) attacking the NHRERP evacuation time assumptions for ambulatory nursing home patients that were to be evacuated by bus. *Id.* at 83. Nowhere in this section did SAPL cite to Mrs. Pilot's testimony or mount a challenge to the evacuation times for nonambulatory hospital patients. There was no reason for other parties, in their proposed findings, to consider Mrs. Pilot's testimony in isolation from the issue being litigated — transportation availability and support services.

In Section 4 of LBP-88-32, devoted to "Transportation Availability and Support Services," the Board made several findings concerning health care (special) facilities. Among those findings, one, Finding 4.40, discredited the testimony of Ms. Maureen Barrows, who had, in the course of her testimony regarding the adequacy of transportation services, supported her assertions with a reference to NHRERP assumptions concerning the time it would take to load ambulatory nursing home patients into evacuation vehicles. The Board discredited her testimony because she based her attack on NHRERP assumptions

²⁷ SAPL's Proposed Findings of Fact, Rulings of Law and Conclusions of Fact (May 9, 1988).

²⁸ *Id.* at 50-51.

for *ambulatory* patients, who would not be in bed awaiting transportation, on the basis of a time test she had conducted using a *bed-ridden nonambulatory* patient. As the Board stated in its findings:

Intervenors' assumptions concerning evacuation times for each nursing home patient fail to adequately reflect the evacuation time assumptions of the NHRERP. The plan assumes that patients are at the loading point when transportation arrives (NHRERP, Vol. 6, at 11-12) [*sic*], not in their beds awaiting pickup as Intervenors argue. Barrows Dir., ff. Tr. 4405, at 2-3.

LBP-88-32, *supra*, 28 NRC at 699.²⁹

SAPL filed its Brief on Appeal of LBP-88-32 in which it characterized the Board's ruling on Mrs. Barrow's testimony as follows:

The Board also discounts Intervenor testimony as to the time it would take to load hospital patients onto emergency vehicles. (PID 4.40, p. 66) The Board assumes that patients would be at the loading point, not in their beds when emergency transportation arrives. Again, the Board failed to consider the Pilot testimony. Mrs. Pilot said that it is not possible to expedite advanced life support patients except to prepare their paperwork and that it takes from 28 minutes to one hour to move such a patient from bed to stretcher in the same room. Lines, oxygen connections, tubes and the like make the process complicated and time consuming. (Tr. 7674-76)³⁰

Our Finding 4.40 never addressed evacuation times for *nonambulatory hospital* patients because that issue was not litigated. The Board had cited only those NHRERP assumptions concerning *ambulatory nursing home* patients, and then not in the context of ETEs.³¹

SAPL had raised a new issue on appeal. Neither Applicants nor the NRC Staff challenged this move, leaving the Appeal Board to conclude that that new issue was not disputed. In that light, the Appeal Board found that:

Intervenors' witness Joan Pilot testified, without apparent contradiction, [that ALS patients could not be prepared for evacuation] before the arrival of the evacuation vehicle. In dismissing SAPL's challenge concerning evacuation times for special facilities, however, the Licensing Board stated that "[t]he plan assumes that patients are at the loading point when transportation arrives, not in their beds awaiting pickup as Intervenors argue. . . .

²⁹ Mrs. Barrows testified on cross-examination that, in an emergency, Rockingham Nursing Home patients would not be in their beds awaiting transportation, but instead would be placed in mobile lounge chairs for movement. Tr. 4469-70.

³⁰ SAPL's Brief on Appeal of the Partial Initial Decision on the NHRERP LBP-88-32 (March 21, 1989), at 41-42.

³¹ SAPL demonstrated in its filing of May 15, 1986, (SAPL's Fourth Supplemental Petition, *supra*, at 10) and again in its filing of November 26, 1986 (SAPL's Contentions, *supra*, at 14-15) that it was cognizant of the distinction between the two evacuation time assumptions for ambulatory and nonambulatory patients. SAPL even noted in its basis for Contention 31 that "the time for loading non-ambulatory passengers into ambulances is estimated at 0.67 hours." SAPL's Fourth Supplemental Petition, *supra*, at 10. SAPL is therefore without excuse for confusing these two issues.

The Board's statement, however, is inconsistent with the direction given in the individual emergency plans for New Hampshire EPZ towns that patients/residents of special facilities will be assembled *as* (not before) the evacuation vehicles arrive. If, as these plans suggest, assembly begins only when the evacuation vehicles arrive, then the preparation time factor highlighted by Ms. Pilot seemingly has not been considered as part of the present planning basis for ETEs.

ALAB-924, *supra*, 30 NRC at 351 (footnotes and citations omitted). The matter was remanded to this Board with the instruction "to resolve this deficiency." *Id.* at 352.

Our own writings on the subject may have contributed to the confusing state of the record. Mrs. Pilot's testimony cited above, as that testimony was ultimately interpreted, was beyond the scope of the contention it purported to support. Our respective Finding 4.40, although accurate, was similarly beyond the scope of the issue being addressed. Moreover, when we explained the safety significance of the remanded issue in LBP-89-33, we alluded to evacuation times for special facilities although that issue had not been litigated by SAPL.³²

Consequently there was no indication to the Commission from either board or, as far as we have observed, from any party that the ALS issue had been born to a life of its own post hearing. As a result the Commission analyzed the remanded issue as a portion of a broader ETE issue even though it was not litigated as such before the Licensing Board and decided by it.³³

At the outset of its decision on its immediate effectiveness review, the Commission explained that its review under 10 C.F.R. § 2.764, "is largely informal, relying on the existing record and parties' written comments, and it is without prejudice to later adjudicatory resolution of issues still in controversy." CLI-90-3, 31 NRC at 224. Therefore, in a narrow sense, CLI-90-3 contains no instructions to the NRC adjudicating boards and participating parties on how to perform under the remand. Nevertheless, accepting the ALS issue as remanded, the Commission's discussion of the issue provides useful guidance to the proper identification of matters of concern.³⁴

Accordingly the Board sees the following ALS issues to be resolved. They include issues set out in ALAB-924, in CLI-90-3, and respective subissues identified by this Board:

- (1) How long does it take to efficiently prepare an ALS patient for transportation?
- (2) Would preparation of patients at an early initiating condition, e.g., declaration of an alert, or at an order to evacuate, be medically appropriate?
- (3) How many ALS patients are there in the

³² Memorandum Supplementing LBP-89-32, *supra*, LBP-89-33, 30 NRC at 667.

³³ Memorandum and Order, CLI-90-3, 31 NRC at 240-44.

³⁴ We very carefully limit the advice of CLI-90-3 to the *identification* of issues to be addressed under the remand, not to the *resolution* of any issues still in controversy. See 10 C.F.R. § 2.764(g).

EPZ? Where are the ALS patients? Only at Exeter and Portsmouth Hospitals? (4) Would uncertainties in the times available to prepare ALS patients for evacuation produce ETEs that are too inaccurate to be useful in the selection of protective action options?

Finally, the Board notes Intervenor's argument that ALAB-924 (30 NRC at 352 n.71) requires a finding that the NHRERP is inadequate in the absence of individualized special-facility planning.³⁵ The cited footnote requires nothing of that sort. It is simply an observation by the Appeal Board as to a use to be made of any correction in the estimated preparation time for ALS patients.

Sheltering Issues

Overview

The Appeal Board remanded certain sheltering issues to this Board with the admonition that, notwithstanding the low probability of employing sheltering as a protective action for the transient beach population, so long as sheltering remains an option under the NHRERP, respective implementing measures are required. ALAB-924, 30 NRC at 368.

At the outset, much of the concern underlying the Appeal Board's remand and the subsequent events leading to the motions to reopen the record can be traced to the language of the plan, not its intent. Therefore, we first review some fundamentals of the NHRERP on sheltering.

When New Hampshire emergency officials speak of "sheltering" as a protective action for the beach population (or elsewhere for that matter), they do *not* mean that everyone goes to shelter. Quite the contrary, they mean "shelter-in-place" which, in turn, means that the persons receiving the instruction to shelter remain where they are if they are already at a sheltered place — house, school, workplace, wherever. The distinction between persons already at shelter and persons with access to shelter is blurred. The essential point is that there would be no time or confusion barrier between the persons to be sheltered and their sheltering.

The case that has driven this litigation, of course, concerns a large number of transient "day trippers" on the beach in summer without *immediate* access to shelter. Those people are *not* directed to seek shelter when the order to shelter-in-place is implemented. They are directed to *evacuate* in the cars they came in. The very few who have no transportation of their own and are not offered rides, go to indicated public shelters and wait to be evacuated. In our discussion below, we often refer to "actual sheltering" to distinguish from "sheltering-in-place" in that the latter term also means immediate evacuation for many.

³⁵ Intervenor's Reply to Applicants' Response to Licensing Board Order of January 11, 1989, *supra* note 15, at 7.

When emergency planning officials testified about "sheltering" as the protective action under discussion, they were not always asked to explain the nuances of that option. Therefore, those examining the record, but not initiated to the plan, might not have understood that the recognized implementation of the sheltering option is to "shelter-in-place," i.e., almost all summer beach day trippers evacuate. Also, in reading the NHRERP, one must be aware that the "shelter-in-place" concept is also designed to provide for the nonbeach portions of Seabrook EPZ, for all seasons and weather, and other variables. An official description of the shelter-in-place concept is set out at p. 444, *infra*.

Essential to any reasoned discussion of the sheltering option is an understanding of the three broad conditions under which sheltering would be considered. The Licensing Board and the Appeal Board used similar terms, both derived from Applicants' testimony. The Appeal Board was succinct; sheltering would be the choice:

- (1) if sheltering is the most effective option in achieving maximum dose reduction, based upon EPA protective action guides of 1 rem whole body dose and 5 rem thyroid dose;
- (2) if there are "physical" impediments to evacuation;
- (3) if an evacuation is recommended, while a beachgoer without his or her own means of transportation is awaiting transportation assistance.¹³³

¹³³See Applicants' Direct Testimony No. 6, at 19-20; *id.* App. 1, at 7-8. Planning officials consider "physical" impediments under condition (2) to include fog, snow, hazardous road and bridge conditions, and highway construction. Tr. 10,721.

ALAB-924, 30 NRC at 363-64.³⁶

It is also useful to review the rare circumstances that must all prevail before condition (1) would apply:

- (1) The release must be nonparticulate (gaseous) and of short duration. This is most often referred to as a "puff" release.
- (2) The release must be predicted to arrive at the beach within a relatively short time period when, because of a large beach population, the evacuation time would be significantly longer than the exposure duration. The purpose is to avoid a situation in which a sheltered population would be exposed or reexposed to radioactive particulates deposited on the ground (groundshine) during their subsequent, postrelease evacuation.

³⁶ Parenthetically, we note that a commonly cited abbreviated version of condition (1), as exemplified above, is facially a nonsequitur. Maximum dose reductions and EPA protective action guides are different concepts. However, the meaning lost in shortening the description of condition (1) is not a part of the confusion underlying the matter before us.

- (3) There cannot have been an earlier order for beach closing or evacuation.
- (4) And most important of all, emergency decisionmakers *must believe in advance with strong confidence* that all of the several elements calling for actual sheltering are and will remain present throughout the emergency.

We stress the last element because, in an important and undisturbed finding, the Licensing Board found the testimony of Mr. Keller on this issue to be very convincing. The uncertainties attendant to a consideration of sheltering are very great; the potential benefits of sheltering are small. LBP-88-32, 28 NRC at 768, *citing* Keller, Tr. 14,241-44. *See also* ALAB-924, 30 NRC at 364, 366. As we note below, under what might be termed a hybrid condition (1-2) (the potential remains for a later evacuation of the beach area), even "shelter-in-place" would not be the preferred option, as provided by the October 1988 amendments to the NHRERP.³⁷

This Board addresses the referred motions and the remanded sheltering issue together in this general discussion because the motion to reopen cannot be decided on grounds independent of, or consistent with, essential factual predicates to ALAB-924.³⁸

Motions to Reopen Record

As noted above, in their filing of February 1, Applicants maintained that an October 1988 revision to the NHRERP eliminated sheltering for the beach population (in "ERPA A") as an option under condition (1). Applicants draw this conclusion from a provision in the NHRERP, Rev. 2, Vol. 4, Appendix F, that provides, in step IV.B.4 (General Emergency), a recommendation to evacuate "ERPA A" subject only to restraints to evacuation. Applicants reasoned that, in that case, there would be no implementing detail required under condition (1), and, accordingly, that aspect of the remanded issue would be resolved. Also according to Applicants, implementing detail under condition (2) could be easily prescribed by the NRC Staff outside the hearing process.³⁹

On February 6, the Intervenor filed with the Appeal Board a motion to reopen the record on the NHRERP, "in light of Applicants' February 1, 1990

³⁷ New Hampshire's Comments, affidavits, *infra* note 41.

³⁸ In the immediate effectiveness decision of March 1, the Commission was apparently sensitive to the potential for confusion on this issue. It provided a mechanism to correct the record: "If changes to the plan are intended, or if the parties believe that the Licensing Board, Appeal Board, or the Commission misconstrued the intent of the [NHRERP] plan, then appropriate motions should be filed." CLI-90-3, 31 NRC at 245 n.39. To focus the opportunity to ensure an accurate record, the Licensing Board believes that it should freely discuss what it perceives to be misconstructions by the Appeal Board on the intent of the plan. Similarly, we believe that it is the responsibility of the parties to challenge this Board's findings if corrections are required.

³⁹ Note 9, *supra*.

disclosure of the meaning of the October 1988 plan revision.⁴⁰ This is the first of the two Intervenor's motions referred to us.

Applicants' comments also evoked responses from the State of New Hampshire, whose emergency planning officials disagree with Applicants' reading of the October 1988 plan amendments with respect to both conditions.⁴¹ FEMA joined the dispute by offering an explanation of the 1988 amendments which differed from both Applicants' interpretation and Intervenor's characterization of Applicants' interpretation.⁴² In essence the State of New Hampshire and FEMA seem to explain that sheltering, as those entities define the term, was not, as Applicants then believed, eliminated as a planned option in ERPA A.

Applicants were forewarned that New Hampshire intended to file comments on the meaning of the October 1988 amendments and, in anticipation, acceded to the States' interpretation of its own plan. New Hampshire's Comments and Applicants' acquiescence were filed the same day, February 16, 1990.⁴³

When Applicants rescinded their earlier interpretation of the effect of the October 1988 revision to the NHRERP, the entire foundation of Intervenor's February 6 motion to reopen collapsed. Intervenor failed to withdraw that motion which we now deem mooted. In any event, on February 28, Intervenor filed a superseding motion to reopen the record on sheltering issues. This time the motion was grounded factually on: (1) New Hampshire's comments on Applicants' misinterpretation, (2) Applicants' retraction, (3) NRC Staff comments on those circumstances,⁴⁴ and (4) FEMA's February 16 Response to Intervenor's first motion. The February 28 pleading is the second motion referred to this Board by the Appeal Board's order of March 1.

Turning now to the merits of their motion, the Intervenor's case on the sheltering issue rests upon the simple proposition that, where once the NHRERP, under condition (1), provided for actual sheltering of the entire beach population, that option has now been eliminated except for those already in shelters. Nevertheless, their argument goes, the Licensing Board and the Appeal Board

⁴⁰ Emergency Motion of the Intervenor: (1) to Clarify the Status of the Appeal of LBP-89-33 and (2) to Reopen the Record on the NHRERP as to the Need for Sheltering in Certain Circumstances, February 6, 1990.

⁴¹ State of New Hampshire's Comments Regarding Applicants' Response to Licensing Board Order of January 11, 1990, February 16, 1990, attaching affidavits of George L. Iverson, Director, Office of Emergency Planning, and Dr. William Wallace, Director, Division of Public Health Services, Department of Health and Human Services.

⁴² Response of the Federal Emergency Management Agency to Emergency Motion of the Intervenor to Reopen the Record as to the Need for Sheltering in Certain Circumstances, February 16, 1990.

⁴³ Applicants' Response to Emergency Motion of Intervenor: (1) to Clarify the Status of the Appeal of LBP-89-33 And (2) to Reopen the Record on the NHRERP as to the Need for Sheltering in Certain Circumstances, February 16, 1990 (filed with the Appeal Board). Also on February 16, Applicants filed "Applicants' Advice to Licensing Board Re Erroneous Statements in Applicants' Response to Licensing Board Order of January 11, 1990."

⁴⁴ NRC Staff's Response to "Emergency Motion of the Intervenor: (1) to Clarify the Status of the Appeal of LBP-89-33 And (2) to Reopen the Record on the NHRERP as to the Need for Sheltering in Certain Circumstances," February 23, 1990.

had approved a plan where actual sheltering of the entire beach population was *always* the protective action under condition (1). Second Motion at 2.⁴⁵

Moreover, according to Intervenor, FEMA approved a plan where sheltering would *never* be ordered under condition (1), again except for those already in shelter. Therefore, according to Intervenor, there is a fundamental discrepancy between the NHRERP, as reviewed by the Boards and the plan perceived and approved by FEMA. Consequently the requisite FEMA finding under 10 C.F.R. § 50.47(a)(2) is lacking. *Id.*

Intervenor's factual case rests upon the Applicants' disavowal of their earlier construction of the October 1988 amendments and the responses by the State of New Hampshire, FEMA, and the NRC Staff to the first motion to reopen. Intervenor also quote testimony from the NHRERP hearing. Second Motion at 3-4.

Standards for Reopening the Record

In recent months this Board has frequently addressed the standards for reopening a closed record in NRC proceedings. The parties are thoroughly familiar with these standards.⁴⁶ Motions to reopen a record are governed by 10 C.F.R. § 2.734.⁴⁷

⁴⁵ Intervenor states that the relief sought by the motion is based upon perceived changes relating to condition (1). Second Motion at 2. The general theme of the motion relates to condition (1). However, in a few instances Intervenor allude to perceived changes relating to condition (2). *E.g., id.* at 10, 12. The ultimate relief sought, summary judgment, would somehow apply to both conditions, (1) and (2). *Id.* at 15. This is a product of careless draftsmanship. Condition (2) seems to be thrown into the discussion as an afterthought without any analysis. We limit our consideration of the motion to condition (1).

⁴⁶ *E.g.,* Memorandum and Order Denying Intervenor's Motion to Admit Low-Power Testing Contentions or to Reopen the Record. LBP-89-28, 30 NRC 271, 283 (1989).

⁴⁷ As pertinent:

(a) A motion to reopen a closed record to consider additional evidence will not be granted unless the following criteria are satisfied:

(1) The motion must be timely, except that an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented.

(2) The motion must address a significant safety or environmental issue.

(3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

(b) The motion must be accompanied by one or more affidavits which set forth the factual and/or technical bases for the movant's claim that the criteria of paragraph (a) of this section have been satisfied. Affidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised. Evidence contained in affidavits must meet the admissibility standards set forth in § 2.743(c). Each of the criteria must be separately addressed, with a specific explanation of why it has been met. Where multiple allegations are involved, the movant must identify with particularity each issue it seeks to litigate and specify the factual and/or technical bases which it believes support the claim that this issue meets the criteria in paragraph (a) of this section.

* * *

(d) A motion to reopen which relates to a contention not previously in controversy among the parties must also satisfy the requirements for nontimely contentions in § 2.714(a)(1)(i) through (v).

We begin the analysis of the present motion mindful of the now familiar guidance of ALAB-915, 29 NRC 427, 432 (1989). The Appeal Board stated:

[T]he Commission expects its adjudicatory Boards to enforce section 2.734 requirements rigorously — i.e., to reject out-of-hand reopening motions that do not meet those requirements within their four corners. . . .

Also, the accompanying affidavits and supporting material must be tantamount to evidence, and in excess of the basis and specificity requirements of 10 C.F.R. § 2.714(b). *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-89-1, 29 NRC 89, 93-94 (1989).

Timeliness

As noted at the outset, New Hampshire employs the “shelter-in-place” concept. Revision 2 of the NHRERP was served upon the Board and parties sometime prior to the beginning of the evidentiary hearings in October 1987. At least as early as August 1986, Revision 2 described “shelter-in-place” almost exactly as the Board and parties have come to understand that concept during and after the NHRERP hearings. NHRERP, Vol. 1, 2.6-6, Rev. 2, August 1986. The 1986 version of the “shelter-in-place” concept has not significantly changed with respect to the 98% of the beach transients with their own transportation — the population at issue in the motion.

On February 11, 1988, Richard Strome, then Director of the New Hampshire Office of Emergency Management, responded to FEMA’s concerns about New Hampshire’s rationale for the use, or nonuse, of the sheltering option for the beach population. He explained in detail, once again, how the “shelter-in-place” concept would be implemented:

New Hampshire employs the “Shelter-in-Place” concept. This provides for sheltering at the location in which the sheltering instruction is received. Those at home are to shelter at home; those at work or school are to be sheltered in the workplace or school building. Transients located indoors or in private homes will be asked to shelter at the locations they are visiting if this is feasible. Transients without access to an indoor location will be advised to evacuate as quickly as possible in their own vehicles (i.e., the vehicles in which they arrived). Departing transients will be advised to close the windows of their vehicles and use recirculating air until they have cleared the area subject to radiation. If necessary, transients without transportation may seek directions to a nearby public building from local emergency workers. (NHRERP Vol. 1, p. 2.6-6.)

Mr. Strome also offered a thorough, well-reasoned, and convincing rationale for the “shelter-in-place” concept. In particular:

Implicit in adopting this position are three key factors. First, the State wanted a sheltering concept that was uncomplicated and manageable. The shelter-in-place concept meets this criterion. Second, the State wanted a sheltering concept that it could rely upon to be implemented quickly. The shelter-in-place concept meets this criterion; a sheltering concept that requires the movement of people to a remote shelter location may not. Third, the State feels that if a release of radiation warranted movement of the public, they are much more likely to be afforded meaningful dose reductions by moving out of the EPZ than by moving to a shelter within the EPZ. This is the case since the members of the public would be, in effect, "evacuating" to a shelter. This action would require forming family groups or social units prior to moving, deciding whether to seek shelter or evacuate spontaneously, choosing a mode of transportation (i.e., walk or ride), seeking a destination (i.e., home or shelter), and undertaking the physical movement. Furthermore, since sheltering is a temporary protective action, those that sought public shelter would be faced with the prospect of assuming some dose while seeking shelter, more while sheltering, and even more during a subsequent evacuation. Such considerations dissuade the state from considering the movement of large numbers of people to public shelters as a primary protective action for beach transients, given that evacuation is seen as providing dose savings in nearly all accident scenarios.

This position does not preclude the State from considering and selecting sheltering as a protective action for the beach population. Nevertheless, evacuation is a much more likely protective action decision during the summer months when some beach transients cannot shelter in place, but must leave or move to public shelters.

Applicants' Direct Testimony No. 6, ff. Tr. 10,020, Appendix 1, at 4-5.

Therefore, even prior to February 1988, Intervenor had already long been informed that New Hampshire's "shelter-in-place" concept contemplated evacuating, not actually sheltering, beach transients with transportation but without immediate access to shelters. Upon being served with New Hampshire's February 1988 response to FEMA, Intervenor was reminded of that fact and was provided with a detailed rationale.

The concept was explained again in Applicants' Direct Testimony No. 6, April 27, 1988, ff. Tr. 10,200, at 18-21 (received in evidence May 2, 1988) and in the Appendix thereto, from which we cited above. If that were not enough, the Licensing Board restated the concept, and approved it in Finding 8.35, LBP-88-32, 28 NRC at 758, where an entire section was dedicated to the "Shelter-in-Place" concept employed by the State.

Curiously, Intervenor skip our Finding 8.35, purporting to believe that our decision on the matter began in the next Finding, 8.36. Second Motion at 8. In fact, Intervenor's pleading is devoid of any analysis of the "shelter-in-place" option despite the controlling importance of that concept.⁴⁸ Applicants and Staff have pointed to other instances when the concept was made known to

⁴⁸ Intervenor also state that the Licensing Board ruled and imposed conditions that the NIREP would provide for sheltering the entire beach population. They cite to our Findings 8.14, 8.20, and 10.4(b) from LBP-88-32 for that proposition. Second Motion at 2. Their statement simply is not true.

Intervenors, but the point has been made — Intervenors have known about the shelter-in-place concept and the rationale for it for at least 2 years.

Intervenors depend upon a few instances where witnesses may not have used the term “sheltering” carefully or completely enough. Tr. 10,068-69 (Callendrello); Tr. 10,421 (Bonds, Strome); Tr. 14,219-21, 14,252 (Cumming); Tr. 13,184 (McLoughlin).⁴⁹ Indeed, the Bonds testimony cited by Intervenors demonstrates that “shelter-in-place” is a term of art, well understood by the experts and the parties, but possibly confusing out of context. Second Motion at 6, *citing* Tr. 10,734-35 (Bonds).

The Board concludes that the Intervenors have had early, frequent, detailed, and accurate information that the NHRERP would employ the “shelter-in-place” concept. Their failure to deal with that fact convinces the Board that the motion was not submitted in good faith. They knew that the motion was not well grounded in fact. That reason alone is sufficient grounds for denying the motion.

The motion is not timely; it is very late. Therefore, we may not consider the motion unless it raises an extremely grave issue. It does not. Again, the motion fails on that account alone. However, as has become the practice in NRC proceedings, we address some of the other criteria under 10 C.F.R. § 2.734 even though further discussion is unnecessary to the disposition of the motion.

Safety Significance

After a thorough evaluation of the poor protection afforded by sheltering at the Seabrook beach area, the Appeal Board affirmed the Licensing Board’s findings concerning the “efficacy of the NHRERP planning basis for limited sheltering.” ALAB-924, 30 NRC at 367. Intervenors lost on the safety issue before us and before the Appeal Board. The matter was returned to us on the technical basis that implementing detail for sheltering is required notwithstanding the low probability of its choice as a protective action so long as it remains a part of the NHRERP. *Id.* at 368-69. No safety issue is presented by the motion.

Other Elements of 10 C.F.R. § 2.734

Intervenors have not demonstrated that a materially different result would have been likely had the proffered evidence been considered initially. They

⁴⁹ In a portion of the record cited by Intervenors, Dr. David McLoughlin, FEMA Deputy Associate Director for State and Local Programs and Support, seemed to testify at one point that the so-called 98% transient beach population would be sheltered even under condition (1). Tr. 13,184. But an examination of the transcript following Intervenors’ citation demonstrates that he was uncertain about the premise of the questioning. Tr. 13,185-91. In any event, the Washington-based FEMA panel testified as in discovery about the evolution of FEMA’s position in sheltering and were specifically not expected to be prepared to defend FEMA’s substantive position on the merits. *E.g.*, Tr. 13,188. *See also* LBP-88-32, 28 NRC at 774.

haven't demonstrated that the previous result was incorrect. Their motion, once again, has no supporting affidavit and that defect alone would be fatal to the motion.

With respect to the five factors to be considered for nontimely issues under 10 C.F.R. § 2.714(a)(1)(i) through (v), Intervenor's obviously cannot prevail. The reasons for our finding that the issue was not timely raised, also foreclose any finding of good cause for late filing. We need not address all of the factors for weighing a nontimely contention, because the motion fails on other, multiple grounds.

But one more element deserves to be mentioned: Under factor (iii), to what extent would the Intervenor's participation in a reopened proceeding reasonably be expected to assist in the development of a sound record? The Commonwealth of Massachusetts would seek to explain to the State of New Hampshire how that neighbor should define and implement its plans for sheltering while the Commonwealth refuses to plan for any such protection for its own citizens. That bodes ill for any constructive help from the Massachusetts Attorney General. SAPL would not assist in developing a sound record on the issue because the issue does not present a license-blocking opportunity. That leaves NECNP alone among the moving Intervenor's, but the motion does not explain how the Coalition would make any contribution to the record. Accordingly, we find that factor (iii) should also weigh against reopening the record.

The aspects of the motion seeking summary disposition and revocation of the license are frivolous.

Intervenor's motion to reopen the record is denied.

Remanded Sheltering Issues

Background

The Appeal Board remanded the sheltering issues to this Board with the direction that implementing measures for sheltering the general beach population are required. 30 NRC at 368. Within that general direction the remand order provides several specifics:

- (1) The remand covers both conditions (1) and (2). *E.g.*, ALAB-924, 30 NRC at 368, 370, 373.
- (2) The same implementing procedures must be taken for the entire beach population under conditions (1) and (2) as for the population without transportation, condition (3). *Id.* at 272-73. The Appeal Board noted that, *if an evacuation is recommended*, the transient beach population without transportation will be directed to identified public shelter derived from the Stone and Webster Survey. *Id.* at

368.⁵⁰ Therefore the general transient beach population must also have identified shelters *if sheltering is recommended*.⁵¹

- (3) Planning officials must designate in the NHRERP which shelters on the Stone and Webster list are suitable and available to shelter the general transient beach population. *Id.* at 372.⁵² There can be no doubt the Appeal Board meant that specific shelters must be identified, building by building, for the general transient beach population. ALAB-924 correctly cites section II.J.10 of NUREG-0654 as requiring maps showing shelter areas. In addition, according to the Appeal Board, such map preparation “requires efforts to identify and to designate available, suitable shelter.” ALAB-924, 30 NRC at 372.⁵³
- (4) When the potential shelters have been identified and designated, the Licensing Board and the Appeal Board will address any intervenor concerns relative to the “adequacy” (which we infer means “suitability”) of that shelter. *Id.* at 373.
- (5) In addition to a specific awareness of the extent of sheltering that is available, the NHRERP must also contain “an understanding of how the sheltering would be accomplished.” *Id.* at 371. In particular there must be a means for notifying all segments of the transient

⁵⁰ The Appeal Board cited Applicants’ Direct Testimony No. 6, ff. Tr. 10,020, at 21. An appropriate EBS message will instruct persons on the beach without transportation to go to public shelters to await assistance in the event *evacuation* of the beach is recommended. These shelters will be selected from a pool of such shelters identified in the Stone and Webster survey. *Id.*

⁵¹ In this Board’s Memorandum Supplementing LBP-89-32, we explained that the sheltering needs for those under condition (3) differ from the needs of those with transportation. Under condition (3) those without transportation must go to identified public shelters so that they can be sheltered on a bus route while waiting to be *evacuated* by bus. The general transient beach population, those with transportation, will evacuate in their own vehicles. They do not need shelter and need not wait along bus routes. ALAB-924, 30 NRC at 672. There is no logical nexus between the principal purpose of going to public shelter under condition 3 and the purpose for actual sheltering under any other condition. Accordingly, unless directed to the contrary, we implement ALAB-924 to require only that the 93% transient population with transportation must have identified and adequate sheltering available to them if actual sheltering remains an option for that group in the NHRERP. Since this interpretation does not comport with the remand order, it is referred to the Appeal Board.

⁵² New Hampshire emergency planners have not, and do not intend to incorporate the Stone and Webster survey into the NHRERP or rely upon it as a planning basis for sheltering the total beach population, as the Appeal Board specifically acknowledged. *Id.* at 368. Apparently fully cognizant of the significance of the survey in the remanded issue, the State of New Hampshire reaffirmed its position with respect to that survey in its comments.

⁵³ In the immediate effectiveness review the Commission agreed with the Appeal Board that, so long as sheltering remains a potential, though unlikely, option for the beach population, the “NHRERP should contain directions as to how this choice is to be practicably carried out.” However, the Commission seems to differ with the Appeal Board on the latter’s requirement that NHRERP identify specific available and suitable shelter. According to the Commission:

Such directions should include identification of the location of sufficient available shelter together with the means to notify the beach population as to where this shelter is located.

CLI-90-3, 31 NRC at 248. Indeed the Commission envisioned that, given the Stone and Webster survey, incorporating implementing detail into the NHRERP would not be difficult or time-consuming. *Id.* Thus it seems that the Commission would not extend the guidance of NUREG-0654, II.J.10, which requires only maps showing shelter areas. *But see id.* at 248 n.45.

and resident population. *Id.* at 372, citing NUREG-0654, Criterion II.J.10.a, c.

In sum, we understand the Appeal Board to direct that sufficient adequate (i.e., suitable) shelters must be identified and designated as to location. In addition, but in an unspecified manner, implementation must include the means to notify and to move the general transient beach population to those shelters. *Id.* at 371-72.

Discussion

ALAB-924 is express in many of its terms. We are not invited to explain our respective sheltering findings in LBP-88-32, or to resolve that issue within our discretion as was the case with the other remanded issues. The Appeal Board has told us in inflexible terms most of what we must do with respect to implementing a sheltering option, and we now continue our efforts to do them. The only discretion permitted by the remand is that this Board and parties may fashion the method of notifying the general transient beach population how to get to the designated suitable shelters and ensure that they get there.

In the preceding section we explained that New Hampshire's "shelter-in-place" concept under condition (1) provides for the immediate evacuation of the general transient beach population with transportation. Therefore, the directive in ALAB-924 to identify suitable shelter for that group under condition (1) would be without purpose. Implementing detail would be inconsistent with the intent of the NHRERP. Since this finding is not in accord with ALAB-924, we refer the finding to the Appeal Board.

However, since ALAB-924 also covers sheltering under condition (2) (physical impediments to evacuation), sheltering for the same population remains in issue. Presumably sheltering must be designated, and examined for suitability for use under condition (2). Also there must be implementing detail respecting the notification and transfer of the beach population not already at shelters.

The coincidence of a large transient beach population with physical impediments to evacuation — "fog, snow, hazardous road and bridge conditions [or] highway construction" — is difficult for this Board to envision. Possibly weather conditions could have attracted large numbers of day trippers to the beach and, without sufficient warning, changed so severely as to preclude evacuation at that moment. But so long as the potential remains for a later evacuation, the State of New Hampshire states that it will not even recommend shelter-in-place.

Nor can this Board envision the type of road construction or hazardous road or bridge condition that would have provided access to the beaches by a large day-tripper population but would soon thereafter create a physical impediment to prompt evacuation. Again, if the road conditions afford the potential for later evacuation, sheltering will not be recommended.

Assuming, as we must, that ALAB-924 nevertheless requires sheltering under condition (2), we could not draw from the record or from our own concepts how sheltering could be implemented in a practical manner and consistent with ALAB-924. We sought the advice of the parties in our January 11 memorandum.

Applicants responded with what we thought to be the only practical solution: "Broadcast an EBS message instructing members of the general beach population to proceed immediately to the nearest available fully-enclosed building and remain there." Applicants believed that such advice was consistent with the NHRERP "shelter-in-place" approach, and (incorrectly) believed that State would agree to such a change in the NHRERP.⁵⁴

The State of New Hampshire rejected Applicants' suggestion. Instead the State steadfastly, but cryptically insisted that the "referenced changes will direct emergency response officials to broadcast an EBS message instructing members of the general beach population to *shelter-in-place*" (emphasis in original).⁵⁵

While it seems that New Hampshire had committed to making some new change in the NHRERP, it is not clear exactly what that change is. It has not redefined "shelter-in-place." Apparently, then, even during an impediment to evacuation (condition (2)), beach transients without immediate access to shelter and with transportation will be ordered to evacuate. This and other questions need further resolution, as we discuss below.

FEMA did not respond to the Licensing Board's invitation to advise us with respect to our duties under ALAB-924. Rather, it advised the Appeal Board about the "shelter-in-place" concept. FEMA also explained to the Appeal Board that, other than the "shelter-in-place" concept, there never was any provision in the NHRERP for sheltering any segment of the population. And under the "shelter-in-place" option, the transient beach population with transportation are *not* instructed to find a nearby building for shelter. Moreover, according to FEMA, the NHRERP places no reliance on the Stone and Webster survey.⁵⁶

Of course the Appeal Board already knew and noted that the State did not intend to incorporate the Stone and Webster survey into the NHRERP. FEMA offered no advice to this Board about how to comply with ALAB-924, other than to suggest that the matter has no safety significance in the context of the Intervenor's motion to reopen the record.⁵⁷

⁵⁴ Applicants' Response at 11 n.36.

⁵⁵ New Hampshire's Comments, *supra* note 41, at 11.

⁵⁶ FEMA Response, February 16, 1990, *supra* note 42, at 5.

⁵⁷ Opposition of the Federal Emergency Management Agency to Emergency Motion of the Intervenor to Reopen the Record, for Summary Disposition as to the Need for Sheltering in Certain Circumstances and for License Revocation, March 28, 1990. FEMA's testimony that the sheltering option needs implementing detail was an important consideration underlying the remanded issue. FEMA explains that the implementing detail it required related to transients without transportation, i.e., designation of public shelter and appropriate EBS message. In that context, FEMA has found the NHRERP to be fully adequate with regard to implementing detail — and that is still its position. FEMA Response, February 16, 1990, *supra* note 42, at 4-5.

On February 1, the NRC Staff responded to the Licensing Board's invitation with the advice that the Board should await possible Commission guidance on how to proceed on the remanded issues. The Staff believes that the Appeal Board had misapplied the NRC standards in passing on the sheltering (and other issues) remanded in ALAB-924. But in any event, according to the NRC Staff, the sheltering issues can be left for "Staff and/or FEMA verification."⁵⁸

The Staff's advice is not helpful. The Commission has not provided adjudicative guidance concerning our responsibilities under ALAB-924, nor may this Board ignore ALAB-924 in the expectation that the Commission will intercede. ALAB-924, by its terms, requires specific action, including providing an opportunity for Intervenorors to present their concerns about the adequacy of the sheltering. ALAB-924 does not permit a delegation to the Staff or to FEMA. The Staff did not provide any advice as to how to carry out the specific directives of ALAB-924.

In reply to Applicants' Response to our order of January 11, Intervenorors argue simply that ALAB-924 must be obeyed, including implementation under condition (2), but they give no hint as to how we may flesh out the plan with details of moving the affected population into the sheltering.⁵⁹ We recognize, however, that Intervenorors have no obligation to do more than assert whatever rights ALAB-924 granted them.

In sum, the Board has received little or no encouragement from Applicants, FEMA, or the NRC Staff on how to proceed to comply with the Appeal Board's specific directives.

The State of New Hampshire, in fact, seems to discourage any attempt to force additional implementing detail into the NHRERP. Its comments portend an outright refusal to comply with the directives of ALAB-924 — but perhaps not. Some portions of the States' comments are quite clear. Others, however, are enigmatic as exemplified by analyzing and comparing ¶¶ 5 and 6 of identical portions of the respective affidavits of the Emergency Management Director, Mr. Iverson, and the Public Health Director, Dr. Wallace:

4. Where implementation of protective action is deemed appropriate (i.e. — a prognosis of decreasing ability to mitigate the emergency at the plant) evacuation is preferred and generally will be the selected protective action option. See NHRERP Rev. 3, 2/90, Vol. 1, p. 2.6-11.

5. The October 1988 amendments to the NHRERP confirmed the procedures underlying this protective action option by eliminating a shelter-in-place recommendation for ERPA-A whenever the potential remains for a later evacuation of the beach area.

6. The planned protective action for ERPA-A in the event of declaration of a General Emergency is evacuation. However, the option of recommending shelter-in-place for ERPA-

⁵⁸ NRC Staff Further Response to January 11 Board Order, February 1, 1990, at 2 n.5.

⁵⁹ Intervenorors' Reply, February 12, 1990, *supra* note 15, at 7-10.

A was not precluded by the amendments to the NHRERP in October 1988 or in any subsequent amendments or revisions. The shelter-in-place option remains for the so-called "puff release" scenario, and may also be exercised when physical impediments make evacuation impossible.

7. The shelter-in-place option is affirmed by the provisions of the NHRERP which: (a) permit consideration of a recommendation of shelter-in-place of ERPA-A in the event of a release of radioactive material at the Site Area Emergency (NHRERP Rev. 3, Vol. 8, Sec. 7, p. 6.1-7); and (b) allow for recommending shelter-in-place of ERPAs other than ERPA-A at the General Emergency (NHRERP Rev. 3, Vol. 8, p. 6.1-8).

We cannot identify any expressed circumstance where New Hampshire decisionmakers would actually send the general transient beach population with transportation to shelter. But neither can we rule out that action. Under condition (2) (impediments to evacuation) the "shelter-in-place" option "*may*" also be exercised, as noted in ¶6 of the affidavits. And, as already noted, "shelter-in-place" will not be recommended in the beach area whenever the potential remains for a later evacuation. ¶5. Each of these statements invites questions.

In distinct contrast to the clear full language of New Hampshire's February 1988 comments to FEMA, the State's recent statements seem designed especially to avoid saying too much. We sense that the State sees itself in a difficult situation.

In cooperation with Applicants and FEMA, the State has been competent, unstinting, and highly successful in its efforts to provide to its citizens the best possible radiological emergency planning. At the same time the State has had to keep one eye on the Seabrook litigation. The State remained silent following ALAB-924 although it is now apparent that it disagrees with much of the Appeal Board's approach. It was not until the State saw the need to disavow Applicants' conception of the sheltering provisions of the NHRERP that it stepped back into the proceeding. It has stated over and over that evacuation is the preferred protective action in nearly all circumstances.

If, in fact, actual sheltering of the general transient beach population would *never* be the protective action, the issue remanded by ALAB-924 is resolved — no implementing detail for sheltering is needed. But, the State faces a dilemma. Should the NHRERP state in so many words that actual sheltering must never, never be the protective choice for the general transient beach population? Should not the State, governed by humans who recognize their own fallibility, allow for an unforeseen event where sheltering that population just might avoid doses. Should not informed human intervention into the provisions of the NHRERP be available as an *ad hoc* protective response? Operators of a nuclear power plant would not categorically be prevented from applying trained judgment *ad hoc* when faced with a transient beyond plant operating procedures and experience. But if the State were to expressly reserve the potential benefits of an *ad hoc* sheltering choice, would FEMA and NRC regulators require implementing

detail? And how would the planner detail how to implement sheltering for the unforeseeable event?

In any event, the close examination of the record following the remand has revealed that actual sheltering of the general transient beach population with transportation would be a far more rare event than the already rare event contemplated by the Appeal Board. Actual sheltering would not be the option under condition (1). We cannot identify NHRERP provisions for actual sheltering under condition (2), or under a hybrid condition.

Despite the Appeal Board's requirement for sheltering detail notwithstanding its low probability, we do not read ALAB-924 as mandating emergency pre-planning for all possible emergency responses divorced from any consideration of the probabilities underlying the particular event or series of events leading up to that response. As noted, the Appeal Board's rejection appears to be based on a belief that sheltering for the beach population, while very improbable, is a far more likely response than, in fact, it is under the NHRERP. Moreover, the Commission has already held that emergency planners need not specifically consider the complicating effects of some possible but low-probability events. *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-84-12, 20 NRC 249 (1984) (While emergency planning should consider frequently occurring natural phenomena, earthquakes of sufficient size to disrupt emergency response at facility are so infrequent that specific consideration is not warranted). In our view, all of the physical impediments underlying condition (2) will operate to severely restrict the size of the day-tripper beach population to be evacuated or sheltered, and some (e.g., a massive, fast-developing summer snowstorm; sudden road or bridge collapse; area-wide impenetrable mid-afternoon summer fog) approach the edge of reasonable possibility necessitating specific consideration by emergency planners.

The Licensing Board would welcome further guidance from the Appeal Board⁶⁰ in the following areas:

- (1) If the Appeal Board agrees with our view that actual sheltering of the general beach population is a vanishingly improbable protective action choice under the NHRERP, must we continue to press the State of New Hampshire either to renounce that choice or to amend the NHRERP to include implementing detail for some type of sheltering.
- (2) Assuming, contrary to its expressed views, that the State would accept into the NHRERP the specific designation of sufficient and suitable sheltering from the Stone and Webster survey, the problem remains as how to use that information for an estimated 50,000 day trippers

⁶⁰ Cf. Vermont Yankee Nuclear Power Corporation (Vermont Yankee Nuclear Power Station), Appeal Board Request for Clarification from the Commission, April 17, 1990 (unpublished).

at the beaches.⁶¹ None of the potential participants have provided any advice. This Board cannot envision how that aspect of the remand could be implemented. If the Appeal Board has an approach in mind, it would be helpful if it would share its ideas.

- (3) At minimum, ALAB-924 has served to reveal confusion between the State and the Licensees. The Licensees' disavowal of its earlier construction of the October 1988 amendments seemed to be more of a half-hearted deference to the State rather than a true recanting. While it has become even more clear that there is no significant safety issue respecting the general transient beach population, there is still undesirable and unnecessary uncertainty about some finer details. Alternatively, then, the Appeal Board might consider supplementing ALAB-924 by providing greater discretion to the Licensing Board to resolve any remaining uncertainties.
- (4) We refer to the Appeal Board our finding above that the NHRERP does not provide for actual sheltering of the general beach population with transportation under condition (1), and that, with respect to that condition, no implementing detail for actual sheltering is required. We also refer our ruling that the sheltering requirements for beach transients without transportation differ from the general transient beach population, note 51, *supra*.

CONCLUSION

Pending further guidance from the Appeal Board this Board will proceed without delay to comply with the provisions of the remand order with respect to condition (2).

The order dismissing SAPL from the remanded proceeding is appealable.

The disposition of the Letters of Agreement and 1986 Special-Needs Survey as explained above, terminates our consideration of those issues.

Applicants have confirmed that the NHRERP provides for "the transportation needs of special facilities based upon maximum facility capacity . . . in the case of Webster facility in Rye New Hampshire, and the Exeter Healthcare facility in Exeter, New Hampshire."⁶²

⁶¹ ALAB-924, 30 NRC at 368 (estimate for the peak summertime weekend days).

⁶² ALAB-924 directed this Board to take appropriate steps to ensure that the referenced transportation needs are met. 30 NRC at 374. We directed the Applicants to ensure that a respective commitment made in Applicants' testimony had been honored. LBP-89-33, 30 NRC at 657 n.1. Applicants reported their compliance in their response to the Board's order of January 11, 1990. See Response at 12-13.

In a forthcoming order the parties or their counsel will be directed to attend a prehearing conference to provide for the further resolution of the issues regarding Advanced Life Support Patients and Sheltering the Beach Population.

**THE ATOMIC SAFETY AND
LICENSING BOARD**

**Richard F. Cole
ADMINISTRATIVE JUDGE**

**Kenneth A. McCollom
ADMINISTRATIVE JUDGE**

**Ivan W. Smith, Chairman
ADMINISTRATIVE LAW JUDGE**

**Bethesda, Maryland
May 3, 1990**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Charles Bechhoefer, Chairman
Dr. Richard F. Cole
Dr. Jerry R. Kline

In the Matter of

Docket Nos. 72-8
50-317
50-318

BALTIMORE GAS AND
ELECTRIC COMPANY
(Calvert Cliffs Independent
Spent Fuel Storage Installation)

May 15, 1990

The Licensing Board terminates a proceeding in which, prior to the issuance of a Notice of Hearing, the only petitioner seeking a hearing elected to withdraw.

MEMORANDUM AND ORDER
(Termination of Proceeding)

On March 8, 1990, the State of Maryland, acting by and through its Power Plant and Environmental Review Division of the Department of Natural Resources (hereinafter, Maryland), filed a timely petition for leave to intervene in this proceeding, which involves an application for a materials license that would authorize Baltimore Gas and Electric Company (Applicant) to possess spent fuel and other radioactive materials associated with spent fuel storage in an independent spent fuel storage installation (ISFSI). By Memorandum and Order dated April 4, 1990 (unpublished), we ruled that Maryland had established

its standing to intervene, and we set schedules for the filing of contentions (the date for which was extended several times, the most recent being to May 14, 1990, to accommodate settlement negotiations).

On May 11, 1990, Maryland filed a Notice of Withdrawal which stated that agreement had been reached following discussions between Maryland, the Applicant, and the NRC Staff, providing the forum for resolving issues identified to date and for proper consideration of issues that might be identified in the future. This notice was transmitted to us by the Applicant by letter dated May 11, 1990.

No petitioner other than Maryland has sought intervention in this proceeding. Under those circumstances, given Maryland's withdrawal, the proceeding must be, and hereby is, *terminated*.

IT IS SO ORDERED.

FOR THE ATOMIC SAFETY AND
LICENSING BOARD

Charles Bechhoefer, Chairman
ADMINISTRATIVE JUDGE

Bethesda, Maryland
May 15, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Charles Bechhoefer, Chairman
Dr. James H. Carpenter
Dr. Richard F. Cole

In the Matter of

Docket No. 15000033-SC/CivP
(ASLBP No. 90-601-01-SC/CivP)
(EA 88-265)
(General Licensee Under
10 C.F.R. § 150.20)

BASIN TESTING LABORATORY, INC.
dba BASIN SERVICES, INC.

May 30, 1990

The Licensing Board approves a settlement agreement between the NRC Staff and Licensee subject to an Order Imposing Civil Monetary Penalty and an Order to Show Cause Why License Should Not Be Suspended, and grants the parties' joint motion to terminate the proceeding.

MEMORANDUM AND ORDER
(Order Approving Settlement Agreement and
Terminating Proceeding)

This proceeding involves a Licensee's challenges to an Order Imposing Civil Monetary Penalty and an Order to Show Cause Why License Should Not Be Suspended, each issued by the NRC Staff on December 6, 1989. A Notice of Hearing was issued on January 22, 1990 (55 Fed. Reg. 2719 (Jan. 26, 1990)). The parties to the proceeding are the Licensee and the NRC Staff.

The Licensing Board was notified by telephone on April 9, 1990, that the parties had reached agreement to settle the issues in the proceeding and, as a result, we cancelled the prehearing conference scheduled for April 24, 1990. *See* Cancellation of Prehearing Conference, dated April 9, 1990 (55 Fed. Reg. 14,026 (Apr. 13, 1990)). By Memorandum dated May 25, 1990, the NRC Staff transmitted to the Board an executed settlement agreement and a joint motion to terminate the proceeding. Under the agreement, the Staff agreed to withdraw its Order to Show Cause, and the Licensee withdrew its request for a hearing on the civil penalty order and agreed to pay, in installments, the civil monetary penalty sought by the Staff.

The agreement appears to the Board to be fair to both parties and its approval to be in the public interest. Given the Commission policy favoring settlement of proceedings of this type (10 C.F.R. § 2.203), the Board hereby *approves* the agreement (incorporating its terms by reference into this Order) and *grants* the parties' motion to terminate the proceeding on the basis thereof.

IT IS SO ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Charles Bechhoefer, Chairman
ADMINISTRATIVE JUDGE

Dr. James H. Carpenter
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Bethesda, Maryland
May 30, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Thomas E. Murley, Director

In the Matter of

Docket No. 50-155

CONSUMERS POWER COMPANY
(Big Rock Point Plant)

May 4, 1990

The Director of Nuclear Reactor Regulation denies a Petition, and its amendment, filed by JoAnne Bier Beemon on behalf of Concerned Citizens for the Charlevoix Area requesting that the Nuclear Regulatory Commission order Consumers Power Company to update and retrofit its Big Rock Point Plant to meet all current safety design and radioactive-effluent criteria and to prohibit continued operation until such time as those objectives are met. The Petitioners alleged that the NRC and Consumers Power Company jointly have improperly used cost/benefit criteria and "grandfathering" to defer implementation of safety criteria, resulting in large radioactive emissions from Big Rock Point; that Big Rock Point does not meet current NRC safety standards; and that an environmental impact statement is required for continued operation of the facility.

RULES OF PRACTICE: SHOW-CAUSE PROCEEDINGS

The principle is firmly established that persons may not use 10 C.F.R. § 2.206 procedures for reconsideration of issues previously decided.

NRC: CONSIDERATION OF ECONOMIC MATTERS

While the NRC is precluded from taking costs into account in establishing or enforcing the requisite level of adequate protection of the public health and safety, costs in devising or administering requirements that afford protection above and beyond that level may be considered.

NATIONAL ENVIRONMENTAL POLICY ACT: ENVIRONMENTAL IMPACT STATEMENT

The National Environmental Policy Act of 1969 does not require environmental impact statements for major federal actions that preceded its effective date.

TECHNICAL ISSUES DISCUSSED

- Radwaste Systems
- Radioactive Dose to Workers
- Operating and Maintenance Costs
- Gaseous Waste System
- Probabilistic Risk Assessment
- Land Disposal of Low-Level Waste.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

INTRODUCTION

By petition dated November 11, 1989, and amended March 15, 1990, Mrs. JoAnne Bier Beemon (the "Petitioner"), on behalf of Concerned Citizens for the Charlevoix Area, requested that the Nuclear Regulatory Commission (NRC) order the Consumers Power Company (CPCo) to update and retrofit the Big Rock Point Plant (Big Rock Point) to meet all current NRC safety design and radioactive-effluent criteria. Petitioner further requested the NRC to prohibit continued operation until such time as these objectives are met. The amended petition consisted of corrections to the effluent releases quoted in Issue No. 1 and minor amplifications of Issues No. 1, 2, and 4, identified in the original petition. The petition, as amended (Petition), was considered under the provisions of 10 C.F.R. § 2.206 of the NRC's regulations. Notice of receipt of the November 11, 1989 petition was published in the *Federal Register* on February 1, 1990 (55 Fed. Reg. 3501).

Mrs. Beemon's Petition alleges that the NRC and CPCo jointly have improperly used the cost/benefit criteria and "grandfathering" to defer implementation of current safety criteria, resulting in indefensibly large radioactive emissions from Big Rock Point. Petitioner asserts that Big Rock Point does not meet current safety design criteria because the NRC has improperly used cost/benefit considerations. Petitioner states that the use of cost/benefit analyses by the NRC is not in accordance with the August 4, 1987 decision of the U.S. States Court of Appeals for the District of Columbia in *Union of Concerned Scientists v. NRC*,

824 F.2d 108 (D.C. Cir. 1987), which stated that the NRC cannot consider cost in setting and enforcing adequate-protection safety standards for nuclear facilities. Upon consideration of the information set forth in the Petition, it has been determined that Mrs. Beemon has not presented any new information or reasons that constitute a basis for retrofitting or shutting down Big Rock Point.

DISCUSSION

Mrs. Beemon asserts that the NRC and CPCo disregarded the health and well-being of the citizens of the Charlevoix area through the support of twelve (12) specific issues. I will address each of them *seriatim* below.

Issue 1

1. BIG ROCK WAS SECOND IN THE NATION IN TOTAL RADIATION RELEASED TO THE ENVIRONMENT IN 1986. The average 900 Megawatt reactor released 4,520 curies to the environment. Big Rock Nuclear Facility, at 75 Megawatts, released 67,900 curies, almost 15 times the national average. If we are to calculate radiation release per Megawatt, Big Rock releases radiation into the environment at a rate 180 times the national average. In the past, Big Rock's record is even more sordid. In 1971, Big Rock released over 280,000 curies. In 1972, it released 258,000 curies. Prior to 1970, releases were *much higher* because of experimental cladding defects.

In 1966 705,000 curies were released into the Little Traverse Bay Environment. Over the past 25 years, Big Rock has averaged 129,700 curies released per year. (See Attachment A).

In the early and mid '70s, the N.R.C. ordered owners of many Boiling Water Reactors to install Augmented Off-gas Systems to meet the provisions of Appendix I to 10 CFR, Part 50.

In evaluating the Big Rock Radwaste (Radioactive Waste) System, the N.R.C. stated, "The staff performed a cost/benefit analysis to determine if additional radwaste equipment could be added to the liquid and gaseous radwaste systems of plants that could, for a favorable cost/benefit ratio, reduce the radiation dose to the population reasonably expected to be within 50 miles of the reactor, using the interim value of \$1,000 per total body man-rem and per man-thyroid-rem. Based on the foregoing evaluation, the staff concludes that the rad-waste treatment systems installed at the Big Rock Point Plant are capable of reducing releases of radioactive materials in liquid and gaseous effluents to 'As Low As is Reasonably Achievable Levels.'" (ALARA)

(See "Evaluation by the Office of Nuclear Regulation of the Big Rock Point Plant Waste Treatment Systems," May 1981; and "U.S. Nuclear Regulatory Commission,

This decision must be reversed in light of the U.S. Court of Appeals decision.

Response to Issue 1

In 1986 (the year referenced by the Petitioner), Big Rock Point released 67,900 curies of fission and activation gases, 9.5 curies of H_2 , and 0.081 curie of iodine-131 and particulates (half-life equal to or greater than 8 days) to the atmosphere. Most of these releases were in the form of short-lived noble gases which are readily dispersed and diluted. Liquid effluent releases for 1986 totaled 0.351 curie of tritium, 0.002 curie of iodine-131, and 0.0709 curie of mixed fission and activation products. The trend in releases of radioactive materials to the environment has shown a significant reduction since 1986 primarily because of NRC Staff initiatives that resulted in modifications to the reactor fuel. Big Rock Point released 8350, 7770, and 7080 curies of fission and activation gases in 1987, 1988, and 1989, respectively, significantly less than the 1986 releases.

The NRC Staff performed an independent and detailed evaluation of the radioactive waste treatment systems installed at Big Rock Point and concluded that the design of the systems was in accordance with the requirements specified in 10 C.F.R. Parts 20 and 50. Since the implementation of the Big Rock Point Radiological Effluent Technical Specifications in 1985, concentrations of radioactive materials in effluents and calculated offsite doses to individuals because of these effluents have consistently been well within the limits specified in 10 C.F.R. Part 20, "Standards for Protection Against Radiation," and 10 C.F.R. Part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Is Reasonably Achievable'"

Big Rock Point currently meets the provisions of Appendix I to 10 C.F.R. Part 50.

The decision of the U.S. Court of Appeals for the District of Columbia Circuit in *UCS, supra*, held that the NRC is precluded from taking costs into account in establishing or enforcing the requisite level of adequate protection of the public health and safety. The court further held, however, that the NRC could consider costs in devising or administering requirements that afford protection above and beyond that level. 824 F.2d at 114. The NRC has not considered, and does not consider, the monetary cost to CPCo in determining whether Big Rock Point is operated in a manner that provides reasonable assurance that there is adequate protection of the public health and safety. No monetary costs are considered by the NRC in promulgating its regulations to ensure that adequate protection of the public health and safety is maintained. The Petition does not contain any

specification of where the NRC has taken the cost/benefit ratio into account in requiring an adequate level of public health and safety. The cost/benefit analysis cited in the Petition addresses *additional* radwaste equipment that could be added to the radwaste systems of Big Rock Point. As stated above, consideration of costs for protection above and beyond that which provides reasonable assurance of public health and safety is permitted. The NRC's regulation of Big Rock Point completely conforms to the Court's decision in *UCS, supra*.

Issue 2

2. IN 1987, BIG ROCK WORKERS RECEIVED THE HIGHEST AVERAGE DOSE OF RADIATION PER EXPOSED WORKER IN THE UNITED STATES. Workers at the Big Rock facility received more radiation exposure per unit of electricity produced than any workers in the United States in 1985, with the exception of Nebraska's Cooper plant; five times the national average.

Response to Issue 2

In 1985, the average collective dose per megawatt-year (MW-yr) for Big Rock Point was 6.6 person-rem/MW-yr, which was slightly more than 3.5 times the national average of 1.8 person-rem/MW-yr for 1985. The following year, 1986, Big Rock Point's average collective dose was 1.4 person-rem/MW-yr, which was below the national average of 1.8 person-rem/MW-yr.

Because the ratio of collective dose to gross electricity generated is very sensitive to plant operating conditions and plant size, it is not the most representative figure to use when making plant comparisons. A plant that has been shut down for a substantial portion of the year while personnel perform major maintenance work, as Big Rock Point was in 1985, will usually have a large ratio of collective radiation dose to electricity generated. This large ratio results because the collective dose will be high (the daily collective dose during outages can exceed the daily collective dose during routine operations by several hundred percent), while the electricity generated will be low (because of the small percentage of plant operating time during the year). This ratio will also be consistently higher for smaller-capacity plants such as Big Rock Point, because of the lower gross electrical output and the fact that a base amount of radiation exposure will be incurred relatively independent of electrical output.

Another figure that may be used when comparing plants is the plant collective dose per site. In 1985, Big Rock Point had the fourth lowest collective dose of any U.S. boiling water reactor (BWR). Because annual doses fluctuate from year to year resulting from plant outages (which usually result in higher doses), plant doses are often compared using 3-year averages to smooth out the fluctuation of annual plant doses. Big Rock Point has had consistently low annual collective

doses and had the lowest 3-year-average collective dose per reactor of any U.S. BWR for the period from 1986 to 1988. In addition, the 3-year-average dose per reactor for Big Rock Point declined from a plant-high 3-year-average dose of 328 person-rem in 1980 to a 3-year-average dose of 159 person-rem in 1988. The Big Rock Point dose for 1989 was 156 person-rem. Big Rock Point also had the lowest average collective dose per reactor of any U.S. BWR that has operated greater than 3 years for the 15-year period from 1974 to 1988.

Issue 3

3. BIG ROCK WAS THE REACTOR WITH THE HIGHEST OPERATING AND MAINTENANCE COST IN 1987.

Response to Issue 3

Costs associated with the operation and maintenance of a nuclear power plant are an economic consideration for the plant owners. If high operating or maintenance costs reflect underlying issues of NRC regulatory concern, such as compliance with NRC requirements or safety issues, those underlying concerns are directly addressed as appropriate, by the NRC.

Issue 4

4. BIG ROCK CONTRIBUTES ONLY 1 to 1½% TO CONSUMERS POWER COMPANY'S TOTAL GRID. Michigan and Consumer's Power Company have an abundance of energy resources. Currently Consumer's Power Co. refuses to obey a Michigan Public Service Commission order to sign contracts with 26 independent energy co-generators. (See Attachment B)

Response to Issue 4

The type and size of generating facility that a utility owns or operates and the contribution of these and other sources to a utility's power grid are economic decisions and matters over which the NRC has no jurisdiction.

Issue 5

5. BIG ROCK HAS NEVER BEEN THE SUBJECT OF AN ENVIRONMENTAL IMPACT STUDY, AS ORDERED BY THE NATIONAL ENVIRONMENTAL POLICY ACT OF 1969. Consumers Power has not complied, citing "grandfathering," and "cost-effectiveness."

Response to Issue 5

The National Environmental Policy Act of 1969 (NEPA, 42 U.S.C. § 4321 *et seq.*) became effective in 1970. On May 1, 1964, the NRC granted Big Rock Point a full-term operating license. By its own terms, NEPA is prospective. It applies to major federal actions that would occur after it became effective in 1970 and that might significantly affect the quality of the human environment. "Grandfathering" is not involved with Big Rock Point's status in relation to NEPA. Thus, NEPA does not require the issuance of an environmental impact statement (EIS) for the continued operation of Big Rock Point, which was licensed long before NEPA became effective.

The NRC's criteria for licensing and regulatory actions requiring environmental impact statements are listed in 10 C.F.R. § 51.20. Since its licensing, Big Rock Point has conducted no activities that meet the criteria for requiring an EIS.

The Petitioner previously argued unsuccessfully in an administrative proceeding before an NRC licensing board that an EIS was required by NEPA to be issued for Big Rock Point. The hearing concerned a proposed spent fuel pool expansion. On appeal, ALAB-636, 13 NRC 312 (1981), the Appeal Board stated that the continued operation of Big Rock Point did not require an environmental review. In that proceeding, the intervenors, of whom Mrs. JoAnne Bier Beemon was one, argued: "Because the plant's operation has never been evaluated for environmental impact, NEPA, in their [Concerned Citizens'] view, requires such an evaluation now (in the form of an EIS) for continued reactor operation" (13 NRC at 319). The Appeal Board rejected Mrs. Beemon's argument. For the reasons described above, an EIS is not required by statute or by NRC regulations for the continued operation of Big Rock Point. Furthermore, the principle is firmly established that persons may not use 10 C.F.R. § 2.206 procedures as a vehicle for reconsideration of issues previously decided. See *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Units 1 and 2; Oyster Creek Nuclear Generating Station), CLI-85-4, 21 NRC 561, 563 (1985).

Issue 6A

6. THE BIG ROCK PLANT OPERATES IN NON-COMPLIANCE WITH TODAY'S MINIMAL SAFETY REQUIREMENTS.
 - A. *The Big Rock Containment is unshielded.* Under pressure from the N.R.C to implement shielding, Consumer's officials replied, "Based on these results, (the Big Rock Probabilistic Risk Assessment) a *philosophical* position has been developed relative to the reactor shielding at Big Rock Point." NUREG 0578 Requirement 2.213 states that nuclear power plants must shut down immediately in the event of complete loss of a safety function. Shielding is critical to protection of workers, as well as the public.

Response to Issue 6A

The issue of plant shielding at Big Rock Point was the subject of previous petitions submitted by Concerned Citizens for the Charlevoix Area and was addressed in Directors' Decisions DD-80-34 (12 NRC 711 (1980)) and DD-80-35 (12 NRC 721 (1980)). The conclusions reached in those decisions remain valid. For the reasons stated in those decisions, no action is warranted regarding plant shielding.

The statement that "a philosophical position has been developed relative to the reactor shielding at Big Rock Point" is taken from the Big Rock Point Probabilistic Risk Assessment (PRA) study. This study was performed by CPCo to estimate core damage probabilities, evaluate potential risks to the surrounding population, and develop positions on possible plant modifications.

The phrase "philosophical position" describes the criteria used by CPCo to evaluate the need for and benefits of potential improvements to plant radiation shielding. Contrary to the assertion that "the Big Rock containment is unshielded," the results of detailed analyses indicate that existing plant shielding is adequate, and potential modification would not result in significant benefit to plant safety. CPCo determined that the shielding provided by the steel containment and other structures is sufficient to protect plant personnel responding to a worst-case accident, and additional shielding in the containment structure would not significantly benefit plant safety and would not improve the protection provided to the public. The Petitioner has not provided any information that calls into question the adequacy of the current shielding systems at Big Rock Point.

Issue 6B

- B. *Big Rock is designed to vent radiation continuously.* Today's nuclear plants are fined thousands of dollars if vents are inadvertently left open. Big Rock must vent so that operators can have access to vital areas of the plant. For many years these containment isolation valves had a failure rate of 25%. (See Appendix IV to the PRA at 3.3)

Response to Issue 6B

Big Rock Point is one of ten nuclear power plants that require frequent or continuous purging of the containment during normal operation to allow frequent operator access. Continuous purging of the containment at Big Rock Point is permitted and is in compliance with current safety standards. This frequent purging is allowed because these plants also provide for rapid automatic isolation of the containment on detection of possible accident conditions. The most recent PRA for Big Rock Point found that, where previous calculations had determined

that the overall probability of failure of the containment isolation valves upon demand was 0.25 (the 25% failure rate referenced by the Petitioner), this total probability is comprised of two basic failure modes: the failure-to-close mode (with a probability of 0.11) and the failure-of-leak-test mode (with a probability of 0.14). The effects of the failure-to-close mode on calculated offsite doses for a design-basis accident are significantly greater than the effects of a typically observed occurrence of the failure-of-leak-test mode. Ninety percent of the occurrences of the failure-to-close mode involve a failure to close the 24-inch-diameter vent valves. Four major systems significantly contribute to the total probability of the failure-of-leak-test mode occurrences: steam line/feedwater (42%), vent valves (24%), sumps (20%), and fuel pit (14%). Of these possible sources of leakage, only vent valve leakage flows directly to the environment. Thus, releases of radioactive materials during a design-basis accident caused by leakage from the other systems are expected to be much smaller than releases from the vent valves. As a result of improvements to the design of the solenoids used to actuate the vent valves at Big Rock Point, the total failure-to-close probability has been reduced from 0.11 to 0.035 per demand.

Issue 6C

- C. *Radwaste (radioactive waste) systems are antiquated and obsolete. Batches of liquid radioactive waste are routinely released into Lake Michigan. When radioactivity levels are too high, water is pumped from Lake Michigan and used to dilute the batches.*

Response to Issue 6C

The function of the liquid radioactive waste (radwaste) system is to collect and process radioactive wastewater for reuse or disposal. Plant technical specifications provide limitations on the amount of discharge of liquid effluents from the plant. These specifications conform to the requirements of 10 C.F.R. Part 20, "Standards for Protecting Against Radiation," and 10 C.F.R. Part 50, Appendix I, "Numerical Guides for Design Objective and Limiting Conditions for Operation to Meet the Criterion 'As Low As Is Reasonably Achievable'" The limitations consist of specific concentrations of radioactive materials in unrestricted areas and doses to members of the public.

The liquid radwaste system is designed to segregate "dirty waste," "clean waste," and "chemical waste" into separate radwaste receiver tanks. From the receiver tanks, the wastes can be discharged or reused following a purifying process that may include chemical neutralization, filtration, and demineralization. The water released from these processes can be discharged, reprocessed, or directed to waste holding tanks. The holding tanks allow for storage and reuse

of the water in various systems. This reduces the amount of waste discharged to the environment.

The liquid radioactive waste system was designed and installed during plant construction in the early 1960s. Modifications were made to the design and operation as follows:

- (1) Improved water reuse management to minimize the need to discharge liquid radioactive effluents;
- (2) Discontinued use of the evaporator because of difficulties in achieving effective operation;
- (3) Discontinued regeneration of ion-exchange resin; and
- (4) Future establishment of plans for discontinuing radioactive laundry operations during outages.

Collectively, these changes have resulted in a significant reduction in the quantity of liquid radioactive waste released over the years. Discontinuing radioactive laundry operations, which presently represent the largest source of liquid radioactive waste, will further reduce these effluents.

Batch releases from various radioactive liquid waste tanks are diluted with the service water and the circulating water discharged before release to Lake Michigan. This dilution process is a standard practice in nuclear power plants. Liquid effluent releases are composed primarily of batch releases from the chemical wastewater tank and consist of laundry water and liquid wastes generated from decontamination activities. Chemical wastewater tank effluents are normally processed by filtration only. Other liquid batch releases for water quality or inventory control are generally processed by demineralization and filtration.

Concentrations of radioactive materials in liquid effluents and calculated offsite doses to individuals caused by the liquid effluents consistently have been well within the annual limits contained in the technical specification.

Issue 6D

- D. *Due to shielding and capacity, the liquid radwaste systems would be of limited usefulness in accidents which generate large quantities of high activity in water.* In August of 1981, in response to oral interrogatories, Big Rock expert Charles Axtell stated, "It's a well-known fact that this plant is not equipped to handle an accident where large quantities of water are generated."

Response to Issue 6D

The design requirements for the liquid radwaste system at Big Rock Point and at all other nuclear power plants include shielding and the capacity to meet the radioactive waste processing needs of normal operation, including anticipated

operational occurrences, but not including accidents that may generate large quantities of high-activity water. There is no requirement that liquid radwaste systems be designed to handle these quantities of water.

Issue 6E

- E. *Off-gas systems are not capable of bringing gaseous effluents to within industry norms.*

Response to Issue 6E

Radioactive materials contained in gaseous discharges include activation gases, fission gases, and tritium discharged primarily through the condenser air ejector and turbine gland seal system, and radioactive halogens and particulates released to the environment primarily from the plant ventilation system during the presence of steam leakage from the primary coolant.

The gaseous waste system processes waste materials so that releases of effluents are kept within the numerical guidance of Appendix I to 10 C.F.R. Part 50. System design capacity for fission and activation gas releases from the condenser air ejector allows a brief holdup time for short-lived radioactive products to decay. High-efficiency particulate air filtration is also provided to minimize releases of radioactive particulates through this pathway. The turbine gland seal system uses about 0.1% of the total steam flow. However, gases released from this pathway account for a small fraction of the gases released from the air ejector.

The exhaust products of the plant ventilation system and the turbine gland seal system are not filtered or processed before being discharged. All ventilation, except for the exhaust from a small chemistry laboratory fume hood, is directed to a stack that is continuously sampled and monitored. An alarm feature warns personnel if releases exceed a predetermined set point which is based on compliance with the technical specifications and regulatory requirements. Provisions also exist to automatically terminate discharge of the condenser off-gases (normally the largest source of release) if releases exceed a predetermined release rate that is also calculated from the technical specifications and regulatory requirements.

The "industry norm" observation can be best addressed by examining the offsite effect of effluent releases, as was stated in the Response to Issue 1. Calculated offsite doses to individuals caused by gaseous effluents from Big Rock Point consistently have been well within the technical specification limitations. Plant technical specifications provide limitations on doses to members of the public caused by discharge of gaseous effluents from the plant. These limitations conform to the requirements of 10 C.F.R. Part 20, "Standards of Protection

Against Radiation,” and 10 C.F.R. Part 50, Appendix I, “Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion ‘As Low As Is Reasonably Achievable’. . . .”

Issue 6F

- F. *In 1976, Big Rock was given a lifetime exemption from meeting the N.R.C.'s current safety standards. This decision must be reviewed.*

Response to Issue 6F

On May 26, 1976, the Commission issued a Memorandum and Order, CLI-76-8, 3 NRC 598 (1976), in which it granted to CPCo, the licensee for Big Rock Point, lifetime exemptions from the emergency core cooling system single-failure criteria requirements imposed by 10 C.F.R. § 50.46 and 10 C.F.R. Part 50, Appendix K, ¶ I.D.I, insofar as applied to the specific case of a loss of reactor coolant caused by a break in either core spray system. That order also granted the Licensee lifetime exemption from the requirements in 10 C.F.R. § 50.46 that long-term recirculation mode cooling be maintainable in the absence of offsite power despite the postulated failure of the onsite diesel generator. These exemptions relate to the facility's emergency core cooling system and were granted only after extensive NRC Staff review, review of public comments on the proposed exemption, and subjection to numerous conditions imposed by the Director of the Office of Nuclear Reactor Regulation (NRR) and the Commission. These matters are fully addressed by the Commission's 1976 Exemption Order, CLI-76-8, which is a matter of public record. The Petitioner has presented no new information that calls into question the bases for the Commission's exemption. Furthermore, as was stated in the Response to Issue 5, persons may not use 10 C.F.R. § 2.206 procedures as a vehicle for reconsideration of issues previously decided.

Issue 6G

- G. *Big Rock's exemption from T.M.I. NUREGs and Systematic Evaluation Program topics must be reevaluated.*

Response to Issue 6G

On August 4, 1981, and March 14, 1984, the Commission issued orders confirming the commitments of the Big Rock Point Licensee to implement those Three Mile Island (TMI)-related items set forth in NUREG-0737. The orders, and their attachments, contained lists of NUREG-0737 items that apply

specifically to Big Rock Point and the Licensee's schedule for implementation of their commitments. Copies of these orders were provided to Mrs. Beemon, the Petitioner, at the time of their issuance.

All TMI items that the NRC Staff determined were necessary at Big Rock Point have been completed except for the installation and implementation of the Safety Parameter Display System (SPDS), scheduled for October 1990, and the Detailed Control Room Design Review, scheduled for December 1992. Previously, the NRC Staff evaluated the need for Big Rock Point to conform with all TMI items and, as a result, issued the August 4, 1981, and March 14, 1984 Orders. The Petitioner has not provided any new information that would cause the NRC Staff to reevaluate its position.

The Systematic Evaluation Program (SEP) was an NRC Staff-initiated effort to review and evaluate the extent to which older plants meet current NRC licensing standards. The review provided (1) an assessment of the significance of differences between current technical positions on safety issues and those that existed when a particular plant was licensed, (2) a basis for deciding the way these differences should be resolved in an integrated plant review, and (3) a documented evaluation of plant safety.

The NRC Staff reviewed Big Rock Point with regard to the criteria established for the SEP. The results of that review and the NRC Staff findings are provided in NUREG-0828, "Integrated Plant Safety Assessment, Systematic Evaluation Program, Big Rock Point Plant," May 1984. The review received the full scrutiny of the Advisory Committee on Reactor Safeguards (ACRS) and the Commission. Big Rock Point was required to resolve all SEP topics and, where appropriate and justified, was required to make plant modifications. The modifications resulting from the SEP review incorporate the views of the ACRS.

Big Rock Point is in full compliance with the SEP criteria. Petitioner has presented no new information to cause the NRC to change its previous evaluations.

Issue 7

7. THE USE OF PROBABILISTIC RISK ASSESSMENT IS GROUNDED IN COST/BENEFIT ANALYSIS, AND SHOULD BE USED WITH CAUTION; CONCLUSIONS MUST BE RE-EXAMINED.

- A. In 1981, Consumers Power Company submitted the *Big Rock Point Nuclear Power Plant Probabilistic Risk Assessment Main Report* to the N.R.C. At 1.0 Executive Summary 1.1, Motivation for Performance of a Probabilistic Risk Assessment, Consumers Power Co. argued, "The small size of Big Rock Point limits the capital which can be economically spent on plant modifications. Regulatory requirements imposed on nuclear plants on a generic basis after the accident at Three Mile Island make continued operation of Big Rock Point an unattractive alternative from an economic perspective." At 1.3 Objectives of the PRA, Consumers Power asserted, "There were two major

objectives of the Big Rock Point PRA. The first was to *quantify the risk* to the public from operation of BRP. The second objective was to define those design and procedural modifications to BRP which are most *cost-effective* from the standpoint of risk reduction." Consumers Power Co. calculated that the maximum recommended *expenditure to totally eliminate the remaining risk from Big Rock was approximately \$70,000 to eliminate public health risk and \$600,000 to eliminate the risk associated with normal worker exposure.* To reach this conclusion, CPCo used plant-specific data and WASH-1400 estimates of property loss and latent fatalities, and the proposal in NUREG-0739 that a latent fatality is valued at \$1 million dollars, and an estimate that property damage associated with accidents is valued at approximately 25% of the acute fatality loss.

B. *Consumers Power Company's assertion that the sum of \$670,000 would totally eliminate the public risk from the Big Rock Facility, does not appear to be supported by other Company studies. Common sense tells us this figure is absurd.*

1. At the March 29, 1960 hearing for the Big Rock Construction Permit, Consumers Power experts testified that in the event of an accident, "It is conceivable that the general population in a small area near the plant might have to be evacuated for a short period (up to several months) as a result of ground contamination. Monitoring and possible confiscation of crops and milk might have to be resorted to over an area of up to about two square miles." (Page 103 at 3.)
2. In the Big Rock PRA, pages 117-138, Consumers Power experts calculate that Big Rock has a high core damage probability (meltdown) of 9.8×10^{-4} per year.
3. Big Rock has a high degree of core damage events which produce very large releases of radiation.
4. The probability at which one or more fatalities would occur for Big Rock Point is approximately a factor of six higher than for the average plant analyzed in the Reactor Safety Study.

Response to Issue 7

A PRA is used to identify those plant modifications that will result in the greatest improvement to overall plant safety (risk reduction), and those modifications that are of little benefit. In a cost/benefit analysis, the potential benefit of each plant modification is weighed against the implementation cost to ensure that available resources are being applied to areas that offer the greatest risk reduction to the public.

The Petitioner referred to a letter from CPCo dated March 31, 1981, and interpreted the statements in this letter to mean that spending \$670,000 would totally eliminate risk from Big Rock Point, with \$70,000 to eliminate public health risk and \$600,000 to eliminate risk from normal worker exposure.

The Petitioner's interpretation of the CPCo letter is not correct. In the letter of March 31, 1981, which contained the Big Rock Point PRA, the Licensee states that the maximum recommended expenditure to achieve the proposed

level of risk reduction at Big Rock Point would be estimated. Attachment 1 to the March 31, 1981 letter concludes that, for the observations and assumptions used in the estimate and for the proposed reduction in risk from Big Rock Point, the calculated maximum recommended expenditures should be approximately \$590,000. This estimate compares with a projected expenditure for the recommended modifications of approximately \$730,000.

The March 31, 1981 CPCo letter, properly interpreted, states that spending more than \$600,000 to reduce the risk associated with the operation of Big Rock Point cannot be justified. This is because the risk reduction obtained from further modifications would be increasingly small. Most of the risk reduction is obtained in the initial modifications and any expenditure in addition to the amount for those initial modifications would not provide a significant reduction in risk.

In response to the remainder of the assertions made by Petitioner under this issue, the following should be noted:

- Big Rock Point is subject to the same NRC regulations as all other nuclear plants, including regulations limiting the routine and accidental release of radioactivity.
- The PRA study did identify Big Rock Point as having a core damage frequency of $9.8E-4$ per year. As a result of the study, areas where plant safety could be improved were identified and several modifications at Big Rock were completed. The NRC Staff endorsed these plant improvements that reduced the core damage probability.
- Big Rock Point operates at a relatively low power level (240 MWt). Therefore, the radioactive inventory available for release is very small as compared to other operating plants. Because of its small core, Big Rock Point does not carry the potential for an early health impact (reference the Big Rock Point PRA).
- The Petitioner's statement that the probability that one or more fatalities would occur at Big Rock Point is approximately a factor of 6 higher than for the average plant analyzed in the Reactor Safety Study is true (Reference, Big Rock Point PRA, Fig. 1.1). However, the referenced dose curve is for latent fatalities only. The frequency of a latent fatality is still very low (less than 2 in 10,000 per year). Because of the small fission product inventory, the probability declines sharply when compared with the WASH-1400, "Reactor Safety Study, An Assessment of Accident Risks in U.S. Commercial Nuclear Power Plants," October 1975, prediction for ten or more latent fatalities. However, as a result of the PRA, the Licensee identified areas where containment integrity could be improved and implemented modifications that reduced the referenced dose curve.

Issue 8

8. CONSUMERS POWER COMPANY HAS CITED "LOW POPULATION AREA" AND "REMOTE SITING" AS INCENTIVE TO DEFER SAFETY REQUIREMENTS CLAIMING "LOW SOCIETAL RISK." (See PRA and Applicant Correspondence, Feb. 22, 1980) This is the industry's rationalization for continued operation in remote areas in spite of non-conformance to safety regulations. In cost/benefit terms, this means that the lives of a few people in a rural area are not worth as much, in nuclear safety leverage, as the lives of many people in a high population area, in the calculation of cost/benefit of nuclear plant safety requirements. This is a *clear violation of the civil rights of all citizens in rural America* having the misfortune to live in close proximity to a commercial nuclear facility. The same safety considerations should be afforded people living in low population areas as those afforded individuals living in high population areas.

Response to Issue 8

The NRC does not license a plant to operate solely because of the low population density of the area surrounding the plant. Because the radioactive inventory of Big Rock Point is considerably less than newer nuclear plants, the offsite radiological impact of an accident at Big Rock Point would be correspondingly small.

As with every operating nuclear power plant, an adequate level of safety is ensured by adhering to NRC regulations including siting criteria. These regulations are not expressed in terms of population doses, either for members of the general public or plant workers. Rather, they are expressed as doses to maximally exposed *individuals* both for occupational and general public radiation exposure. In the case of general public exposure, low doses to individuals generally lead to low population doses for a given population density. Decisions to impose further safety requirements beyond the level of adequate protection involve many factors, including cost/benefit analysis.

Issue 9

9. THE GROUND UPON WHICH BIG ROCK WAS BUILT IS SACRED INDIAN LAND, AND THE USE AND CONTAMINATION OF THE LAND BY CONSUMERS POWER COMPANY VIOLATES INDIAN TREATIES.

Response to Issue 9

An inquiry by the NRC Staff with the Bureau of Indian Affairs has failed to produce any records of Indian Treaties or claims to Big Rock Point property. Based on the results of the NRC inquiry and the lack of specificity of Petitioner's

statement, the Staff concludes that Petitioner has not provided a foundation for the assertion.

Issue 10

10. THE PRODUCT OF NUCLEAR FISSION IS NUCLEAR WASTE. The energy produced is used, and gone. Nuclear waste, the most deadly poison known to us, remains deadly for hundreds and thousands of years.

A. *There is no suitable answer to the radioactive waste problem.* This is a technical problem, not a political one, as the nuclear industry would have us believe. All nuclear waste dumps have leaked. There are no success stories. Michigan is now being told we must accept "low level" waste from six other states. This is clearly ludicrous. The nuclear industry leaves a trail of contamination in its wake. There are tons and tons of radioactive tailings; there are contaminated nuclear sites, and buildings, and vehicles, and tools, and cities, and counties, and beautiful little tourist towns.

Response to Issue 10

There are two basic issues that the Petitioner has raised. The first is that there have been some waste sites that have not performed well. The second refers to the responsibility of the State of Michigan to host a low-level waste (LLW) site.

In December 1982, the NRC issued 10 C.F.R. Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste." These regulations established licensing procedures, performance objectives, and technical requirements for the licensing of facilities for the land disposal of LLW. In addition to establishing new requirements to ensure safety in the disposal of LLW, the regulations reflect past experiences at existing LLW disposal facilities. The requirements not only preclude practices that have contributed to problems that occurred at existing closed facilities, they also codify practices that have worked well and have led to good site performance. The site licenses for the three operating LLW facilities have been upgraded to reflect the requirements in 10 C.F.R. Part 61, and experience at these sites has been good.

With respect to responsibility of the State of Michigan, current activities by Michigan and the Midwest Compact Commission are pursuant to Title I, Low-Level Radioactive Waste Policy Amendments Act of 1985 (Pub. L. 99-240), January 15, 1986. This act made each state responsible for providing, either by itself or in cooperation with other states, for the disposal of LLW as defined in the act. Michigan is a party state to the Midwest Interstate Low-Level Radioactive Waste Management Compact that was consented to by Congress on January 15, 1986. Other party states are Indiana, Iowa, Minnesota, Missouri, Ohio, and Wisconsin. Michigan is represented on the Midwest

Compact Commission, which is comprised of representatives of the seven party states.

Michigan was elected as host state by the Midwest Compact Commission on June 30, 1987. We understand that selection criteria included such factors as the volume of LLW generated per state, the amount of radioactivity, and transportation distances. In December 1987, Michigan enacted the required host-state legislation. In October 1989, the Michigan Low-Level Radioactive Waste Authority identified areas in St. Clair, Lenawee, and Ontonogan Counties as potential sites for an LLW facility. The final site will be selected by the Authority following its site characterization process.

Licensing of the selected site will be conducted by either the NRC following requirements in 10 C.F.R. Part 61, or the Michigan Department of Health, if Michigan seeks NRC Agreement State status within the approved period of time. If Michigan assumes regulatory authority as an Agreement State, regulations compatible with those of the NRC, 10 C.F.R. Part 61, will be implemented by the state.

Issue 11

11. **THE GREATEST DANGER IS TO CHILDREN.** There is no safe level of radiation. Radiation damages the basic building block of life, the cell. Children are most susceptible because they are growing and changing.
 - A. *A damaged cell can cause cancer, birth defects, genetic damage, and other health problems.*
 - B. *A 1972 Canadian Atomic Energy study showed low levels of radiation cause cell membrane damage harmful to the immune system.*
 - C. *Radiation damages the cells of all living things; from the amoeba to human beings. Radiation can alter the genetic code in viruses and bacteria and create new diseases in people and all living things. The nuclear industry is playing life and death games with the human race.*
 - D. *Studies showing low birth weights, high cancer rates, and any other abnormal health statistics in the population around nuclear plants and nuclear dumps, and around the Big Rock Facility in particular, must be re-examined in conjunction with an Environmental Impact Study as ordered by the National Environmental Act of 1969.*

Response to Issue 11

The general statements made by the Petitioner that radiation, both natural and man-made, can damage living cells, are partially correct. It is known that large doses of radiation can cause such ill effects. It is considered prudent to assume that low doses entail some risk. It is also known that every human activity entails radiation exposure and that such exposure cannot be eliminated. It follows that safety is achieved by limiting exposures to levels well below

those at which ill effects have been observed. The NRC goes further and limits exposures to levels so low that the assumed theoretical risks are far less than risks normally accepted by careful people. As explained previously, Big Rock Point is operated in accordance with specific NRC requirements and guidelines for protection against radiation.

With respect to Petitioner's concerns regarding the health effects of radiation, in the last year, two major reports dealing with the health effects of ionizing radiation have been published. At the end of 1988, the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) published a report entitled "Sources, Effects and Risks of Ionizing Radiation," and in December 1989, the National Research Council's Committee on the Biological Effects of Ionizing Radiation (BEIR) published its latest report entitled "Health Effects of Exposure to Low Levels of Ionizing Radiation — BEIR V." The objective of these reports was to update previous reports (UNSCEAR published in 1977 and 1982, and BEIR III published in 1980) to reflect additional information on the epidemiology and dosimetry of radiation exposure and effects.

The validity and applicability of models and risk coefficients in BEIR V are currently being reviewed and assessed by the Office of Science and Technology Policy's Committee on Interagency Radiation Research and Policy Coordination (CIRRPC), the International Commission on Radiological Protection (ICRP), the National Council on Radiation Protection (NCRP), an NRC contractor, and by other federal agencies. The NRC is continuing to monitor the progress of these reviews and assessments.

The UNSCEAR 1988 and BEIR V reports base their estimates of fatal cancer risk primarily on effects that have been observed only at relatively high doses and high dose rates. Both reports indicate that accumulation of the same dose of radiation over long periods of time (weeks, months), as is the case with environmental and occupational exposures, is expected to reduce the lifetime risk appreciably. Neither report gives adequate numerical guidance to specify such risk reduction. However, both reports indicate that risk is reduced at least by a factor of 2. The estimates of excess lifetime cancer mortality in an exposed population are essentially the same in UNSCEAR 1988 and BEIR V. Assuming a risk reduction factor of 2 for protracted exposures (low dose rate), these estimates are on the order of 5×10^{-4} per person-rem, or 5 cancers per 10,000 person-rem.

As was stated in the Response to Issue 1, Big Rock Point released 67,900 curies of airborne fission and activation gases in 1986. An NRC contractor calculated¹ the total-body population dose due to this release to be 3 person-rem based on 170,000 persons living within a 50-mile radius of Big Rock Point.

¹NUREG/CR-2850, Vol. 7, "Population Dose Commitments Due to Radioactive Releases from Nuclear Power Plant Sites in 1986," Pacific Northwest Laboratory, October 1989.

The dose to these people from natural sources is about 50,000 person-rem per year.² The cancer mortality associated with the collective dose of 3 person-rem is estimated to be about 0.0015 cancer among 170,000 persons living within 50 miles of Big Rock Point based on values provided for risk of cancer in the BEIR V report. The report further stated that the normal cancer mortality risk at any location is estimated to be 200 per thousand persons during a 70-year human lifetime (or 34,000 cancer mortalities in the population of 170,000 in the vicinity of Big Rock Point).

The BEIR V report also estimated that all additional forms of genetic disorders due to a 1 million person-rem radiation exposure would be fewer than sixty cases in the first generation. At Big Rock Point, with a 3 person-rem total-body population dose, the additional genetic disorders are estimated to be less than 0.0002. This compares to the expected natural incidence of 7000 genetic disorders in the offspring of any population of 170,000 persons. (This does not include other disorders of complex etiology, such as heart diseases and cancer for which the BEIR V report did not provide estimates.)

Having considered these estimates, the NRC Staff concludes that based on conservative assumptions, the cancer risk and genetic effects due to the operation of Big Rock Point is insignificant relative to the natural incidence of cancer and genetic effects in the population within a 50-mile radius of the plant.

CONCLUSION

The Petitioner seeks the NRC to order CPCo to update and retrofit Big Rock Point to meet current criteria for safety design and radioactive effluence. The Petitioner also seeks that the NRC prohibit continued operation of the facility until such time as these objective are met.

For the reasons discussed previously, I find no basis for taking the action requested by the Petitioner. Rather, based upon the review efforts by the NRC Staff, I conclude that no substantial health and safety issues have been raised by the Petitioner. Accordingly, the Petitioner's request for action pursuant to 10 C.F.R. § 2.206 is denied.

A copy of this Decision will be placed in the Commission's Public Document Room, Gelman Building, 2120 L Street, NW, Washington, DC 20555, and at the North Central Michigan College, 1515 Howard Street, Petoskey, MI 49770.

²"Ionizing Radiation Exposure of the Population of the United States," NCRP 93, National Council on Radiation Protection and Measurements, Bethesda, Md., 1987.

A copy of this Decision will also be filed with the Secretary for the Commission's review as provided in 10 C.F.R. § 2.206(c) of the Commission's regulations.

FOR THE NUCLEAR
REGULATORY COMMISSION

Thomas E. Murley, Director
Office of Nuclear Reactor
Regulation

Dated at Rockville, Maryland,
this 4th day of May 1990.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kenneth M. Carr, Chairman
Thomas M. Roberts
Kenneth C. Rogers
James R. Curtiss
Forrest J. Remick

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(Offsite Emergency
Planning Issues)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

June 8, 1990

The Commission accepts a referral from its Appeal Board to address the merits of Intervenor's motion to reopen the Seabrook record to litigate a contention relating to the use at that facility of certain pressure-measuring devices ("Rosemount transmitters"). The Commission denies the motion because it finds that Intervenor has not made the required showing under 10 C.F.R. § 2.734(a) for reopening a closed record. The Commission defers, until a later date, the matter of additional guidance on reopening motions filed very late in the adjudicatory process and the appropriate forum for initial consideration of technical issues lacking nexus to matters before either of its subordinate panels.

RULES OF PRACTICE: REOPENING OF EVIDENTIARY RECORD

A motion to reopen a closed record to consider additional evidence will not be granted unless the following criteria are satisfied: (1) the motion must be timely, except that an exceptionally grave issue may be considered in the

discretion of the presiding officer even if untimely presented; (2) the motion must address a significant safety or environmental issue; (3) the motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially. 10 C.F.R. § 2.734(a).

RULES OF PRACTICE: REOPENING OF RECORD (TIMELINESS)

A motion to reopen a closed record is not timely where intervenors did not act promptly after information relevant to the contention they sought to litigate became available.

RULES OF PRACTICE: REOPENING OF RECORD (TIMELINESS)

Intervenors who have public information relating to the matter they seek to raise for at least 10 months prior to filing a motion to reopen or at least some 7 weeks' notice of applicants' actions with respect to the matter in question, could and should have moved more promptly than a full 4 weeks thereafter, especially given that the record had long since closed and the Commission's immediate effectiveness decision was expected imminently.

RULES OF PRACTICE: CONTENTIONS (UNTIMELY FILINGS)

The Commission reasonably demands that contentions filed after the hearing is under way — let alone concluded — be filed promptly after receipt of the information needed to frame these contentions. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-8, 29 NRC 399, 414 (1989), citing *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1048-50 (1983). See also *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-918, 29 NRC 473, 482 (1989) (settled that promptness is required).

RULES OF PRACTICE: REOPENING OF RECORD (SIGNIFICANT SAFETY ISSUE)

Intervenors fail to present an actual "significant safety issue" when they have not adduced sufficiently persuasive evidence at the threshold to create a reasonable belief that an applicant's program and continuing compliance with a Staff-prescribed enhanced surveillance program will be insufficient to provide the requisite assurance of plant safety.

ORDER

By order of April 2, 1990, the Atomic Safety and Licensing Appeal Board referred to us for initial action "Intervenors' Motion to Reopen the Record and Admit Late-Filed Contention Regarding Defective Rosemount Transmitters" (Motion), filed by intervenors Massachusetts Attorney General, New England Coalition on Nuclear Pollution, and Seacoast Anti-Pollution League (collectively "Intervenors") and dated February 27, 1990.¹ Intervenors seek to reopen the closed record of this proceeding on the grant of an operating license for the Seabrook nuclear reactor to litigate a contention relating to the use at that facility of the specified transmitters whose function is to measure pressure and differential pressure in nuclear power plant safety systems. We decide today, as we discuss below, that the requested reopening is not warranted.

I. THE APPROPRIATE FORUM FOR CONSIDERATION OF THE MOTION

The proposed contention challenged the adequacy of Applicants' response to the possible presence of certain defects in Rosemount transmitters which had been made known by the manufacturer and subsequently addressed by Staff notices as a matter of general information and interest. The motion was originally addressed to the Appeal Board.² Oppositions were filed by the applicants for the Seabrook license (Applicants) and the NRC staff (Staff) which each asserted that the Appeal Board lacked jurisdiction to entertain the motion. Notwithstanding the Appeal Board's subsequent disagreement with Applicants and Staff and its ruling that it had authority to decide the motion, the Appeal Board determined, with one member dissenting, that the motion was more appropriately to be sent to us. This was so, said the Appeal Board, in that Intervenors seek to raise a new issue directed to the safety of plant operation and it had been over a year since the Appeal Board had before it on appeal any issue connected with plant safety. In the circumstances where the contention lacked any "reasonable nexus" to subject matter remaining before the Appeal Board and where the Licensing Board had before it only remanded emergency planning issues (ALAB-930, 31 NRC at 347), the Appeal Board believed the matter was appropriate for original consideration by the Commission which, "as the ultimate overseer of this extended proceeding, is interested in how the motion is handled." *Id.*

¹ See ALAB-930, 31 NRC 343 (1990).

² At the Appeal Board's request the motion was supplemented by a discussion of jurisdiction.

Whether the Appeal Board majority is correct that the better way to serve the Commission's interest is referral rather than decision, as urged by the dissenting member, is a matter we need not and do not reach today. We have said that we would consider, separate from the Seabrook proceeding, the desirability of additional guidance regarding reopening motions filed very late in the adjudicatory process. CLI-90-3, 31 NRC 219, 256 (1990). As part of that consideration we may wish to reach the question whether guidance is required with respect to the appropriate forum for initial consideration of technical issues lacking nexus to matters before either of our subordinate panels. The Commission accepts the instant referral because avoidance of further delay is a sufficient reason here to address this matter on the merits.

II. DECISION ON WHETHER TO REOPEN

A. Positions of the Parties

Intervenors challenge "the adequacy of measures taken by Applicants to assure that faulty Rosemount Transmitters will not cause, contribute to, or fail to operate during an accident at Seabrook." Motion at 1. The contention is based on an NRC information notice of a series of reported failures of specified models of Rosemount transmitters and on subsequent Staff issuances, and in essence challenges the effectiveness of Applicants' compliance with the NRC Staff industry-wide program to respond to the potential failure of Rosemount transmitters. Intervenors also claim that unusual hazard will result from circumstances at Seabrook in that Seabrook power ascension will cause special stress that will increase Seabrook's vulnerability to the Rosemount transmitter problem.

Both Applicants and Staff argue that Intervenors have not satisfied the Commission's three criteria to reopen a closed proceeding.³

³ Section 2.734(a) provides as follows:

A motion to reopen a closed record to consider additional evidence will not be granted unless the following criteria are satisfied:

- (1) The motion must be timely, except that an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented.
- (2) The motion must address a significant safety or environmental issue.
- (3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

Because there was no earlier contention on Rosemount transmitters, the standards for a late-filed contention must balance in favor of Intervenors as well. See 10 C.F.R. §§ 2.734(d) and 2.714(a).

B. Analysis

First, the motion is not timely because Intervenor's did not act promptly after the relevant information became available. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1048-50 (1983). For at least 10 months before filing the reopening motion and new contention, Intervenor's had available to them public information both that there was concern about failure problems with Rosemount transmitters and that Rosemount transmitters were installed in Seabrook. NRC Staff Response in Opposition, March 14, 1990, at 5-6. *See* NRC Inspection Report dated Jan. 9, 1990 (Attach. C to Applicant's Answer to Intervenor's Motion to Reopen and enclosure at 18-19). They were on notice for some 7 weeks before filing of actions Applicants had taken and had planned to take with respect to the Rosemount transmitters. Even were we to assume, as we do not, that the January 29, 1990 NRC bulletin was necessary to their contention, they could and should have moved more promptly than a full 4 weeks thereafter, especially given that the record had long since closed and the Commission's immediate effectiveness decision was expected imminently. The Commission cannot overemphasize the obligation of Intervenor's to raise contentions at the earliest possible time. The Commission reasonably demands that contentions filed after the hearing is under way — let alone concluded — be filed promptly after receipt of the information needed to frame these contentions. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-8, 29 NRC 399, 314 (1989), *citing Catawba*, CLI-83-19, *supra*. *See also Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-918, 29 NRC 473, 482 (1989) (settled that promptness is required) and *id.* at 482 n.27 (citing cases).⁴

More important, our review of the affidavits provided by the parties makes it clear that a significant safety issue is not presented by Intervenor's reopening motion. Intervenor's have not reported any new information that Staff has failed to consider, but simply have argued that harsher measures should be taken than Staff has considered necessary. While undeniably the Rosemount transmitters perform safety functions and thus have safety significance, on the basis of the materials before us we cannot find that Intervenor's have provided any reason to believe that the matter is not already being addressed satisfactorily by the Staff and the Applicants.

For example, Intervenor's have raised the possibility that the problem could be more pervasive if in addition to the suspect Model 1153 and 1154 transmitters, there are Model 1151 or 1152 Rosemount transmitters or if Rosemount elements were sold to other manufacturers for inclusion in transmitters sold under their

⁴Intervenor's gave no explanation of their lack of promptness from the time that public information was available. Thus, as parties pointed out, Intervenor's failed to show good cause for late filing.

label rather than Rosemount's. See Minor Affidavit at 6 ¶ 14. But in contradiction of the possibility raised by Intervenor, the sworn evidence is that there are no 1151 or 1152 transmitters utilized in any safety or anticipated transient without scram (ATWS) system at the Seabrook site. See NRC Staff Response, Affidavit of Jerry L. Mauck at 4.

Nor are there any transmitters with sensing cells manufactured by Rosemount and the body supplied from another manufacturing source utilized in any safety or ATWS system at Seabrook. *Id.*

Intervenor express concern that the startup program may "stress" the plant. However, it has not been shown and we are not aware of any reason to believe that the transmitters themselves will be subject to pressures significantly different from those normally encountered during operation. Thus the startup program is not likely to increase the likelihood of transmitter failure over that already considered by placing unusual pressures, forces, environments, and the like on them. As a generic matter, the Staff has decided that the expectable normal failure rate of the transmitters is not a safety risk. No more is being permitted at Seabrook than at nuclear plants nationwide.

Thus, contrary to Intervenor's position, their showing fails to present an actual "significant safety issue." This is so because they have not adduced sufficiently persuasive evidence at the threshold to create a reasonable belief that the Applicant's program⁵ and continuing compliance with the Staff-prescribed enhanced surveillance program will be insufficient to provide the requisite assurance of plant safety.

In these circumstances we find that the motion was not timely, does not address an issue of safety significance, and failed to demonstrate that a materially different result would have been likely had the newly proffered evidence been considered initially. Thus reopening the hearing is not justified under the three

⁵ Applicants have, among other things, identified any inservice transmitters from the manufacturer-identified high-failure-fraction lots and found only one. That one showed no signs of defect, but nonetheless, Applicants' affiant represented under oath that it would be replaced by March 14, 1990. See Applicants' Response Affidavit of Bruce E. Beuchel at 4 ¶ 5. Spare transmitters from those lots were returned for replacement of the sensing modules. *Id.* ¶ 6. Applicants have also completed calibration checks and have replaced the sole transmitter that exhibited any symptoms of a potential fill-oil loss. *Id.* at 14 ¶ 30.

relevant criteria, and we need not belabor this opinion with findings under the late-filed contention rule.

It is so ORDERED.

For the Commission⁶

SAMUEL J. CHILK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of June 1990.

⁶ Commissioner Remick abstained on this action.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARD

Administrative Judges:

G. Paul Bollwerk, III, Chairman
Alan S. Rosenthal
Howard A. Wilber

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(Offsite Emergency
Planning Issues)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

June 7, 1990

The Appeal Board grants the applicants' and the staff's motions either to strike or to dismiss as premature intervenors' appeals of the Licensing Board's May 3, 1990 memorandum and order, except insofar as those appeals addressed the dismissal of one of the intervenors from the proceeding.

RULES OF PRACTICE: REOPENING OF RECORD

The criteria for reopening a record are set forth in 10 C.F.R. § 2.734.

RULES OF PRACTICE: FINALITY OF DECISIONS

The test of "finality" for appeal purposes before this agency (as in the courts) is essentially a practical one. As a general matter, a licensing board's action is final for appellate purposes where it either disposes of at least a major segment of

of the case or terminates a party's right to participate; rulings that do neither are interlocutory. *Toledo Edison Co.* (Davis-Besse Nuclear Power Station), ALAB-300, 2 NRC 752, 758 (1975) (footnotes omitted).

RULES OF PRACTICE: FINALITY OF DECISIONS

A licensing board order that dismisses a party from the proceeding possesses sufficient finality to be appealable.

RULES OF PRACTICE: MOTIONS FOR SUMMARY AFFIRMANCE

The appropriate vehicle for seeking a speedy merits disposition of an assertedly insubstantial appeal is a motion for summary affirmance, not a motion to dismiss.

RULES OF PRACTICE: INTERLOCUTORY APPEALS (DIRECTED CERTIFICATION)

While the Appeal Board may invoke its discretionary authority to review interlocutory orders by way of directed certification, *see* 10 C.F.R. § 2.718(i), it will not normally do so unless either of the established tests for the exercise of that authority is met, *see also Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).

RULES OF PRACTICE: FINALITY OF DECISIONS

A protective notice of appeal is appropriate when there is any room for question respecting the finality for appeal purposes of a licensing board order. *See* ALAB-906, 28 NRC 615, 619 (1988).

APPEARANCES

Thomas G. Dignan, Jr., George H. Lewald, Kathryn A. Selleck, and Jeffrey P. Trout, Boston, Massachusetts, for the applicants Public Service Company of New Hampshire, *et al.*

Edwin J. Reis, Elaine I. Chan, and Lisa B. Clark for the Nuclear Regulatory Commission staff.

John Traficante, Boston, Massachusetts, for the intervenor James M. Shannon, Attorney General of Massachusetts.

Diane Curran, Washington, D.C., for the intervenor New England Coalition on Nuclear Pollution.

Robert A. Backus, Manchester, New Hampshire, for the intervenor Seacoast Anti-Pollution League.

MEMORANDUM AND ORDER

Before us are motions of both the applicants and the NRC staff seeking either to strike or to dismiss appeals taken by intervenors Attorney General of Massachusetts (MassAG), New England Coalition on Nuclear Pollution (Coalition), and Seacoast Anti-Pollution League (SAPL) from the Licensing Board's May 3, 1990 memorandum and order in this operating license proceeding involving the Seabrook nuclear power facility.¹ For the reasons stated below, we grant the motions in part.

I.

A. The May 3 memorandum and order addressed four issues that we remanded to the Licensing Board in ALAB-924,² as well as two motions filed by intervenors to reopen the record.³ The remanded issues all involved aspects of the New Hampshire Radiological Emergency Response Plan, applicable to the portion of the Seabrook plume exposure pathway emergency planning zone (EPZ) located in that State.⁴ More specifically, the Licensing Board was called upon to consider further (1) the necessity for letters of agreement (LOA) embracing school personnel having an assigned role under the New Hampshire plan; (2) the sufficiency of a 1986 Special Needs Survey designed to ascertain the persons within the New Hampshire portion of the EPZ who would have special transportation requirements in the event of a Seabrook radiological emergency;

¹ LBP-90-12, 31 NRC 427 (1990).

² 30 NRC 331 (1989).

³ Those motions, dated February 6 and February 28, 1990, respectively, originally had been submitted to us by the MassAG, Coalition, and SAPL. Thereafter, we referred them to the Licensing Board in an unpublished March 1, 1990 order.

⁴ ALAB-924 was rendered on a portion of the appeals taken from the Licensing Board's partial initial decision concerned with the acceptability of that plan. See LBP-88-32, 28 NRC 667 (1988). We recently ruled on the remaining issues raised in the appeals concerning the New Hampshire plan. See ALAB-932, 31 NRC 371 (1990).

(3) the effect that the period necessary to prepare advanced life support (ALS) patients for evacuation would have upon evacuation time estimates for those patients; and (4) the adequacy of the provisions in the New Hampshire plan with regard to implementation of the sheltering option for the transient beach population. For their part, the intervenors' reopening motions similarly focused upon sheltering matters.

At the outset of its May 3 ruling, the Licensing Board announced that it was granting "leave" to SAPL "to withdraw from the proceeding before this Board."⁵ This action had its roots in a series of filings beginning with a January 19, 1990 letter from SAPL counsel to the Board. That letter was in response to a January 11, 1990 Board order seeking the advice of the parties respecting how to proceed on the issues remanded in ALAB-924. In its letter, SAPL counsel informed the Board that it "could not expect SAPL to have the least interest whatsoever in any further proceedings before the Board, given the fact that the Board has decided the issue in the case by directing the 'immediate authorization' for a full power nuclear license."⁶

SAPL's pronouncement prompted a motion from the applicants seeking to have the Board dismiss the remanded LOA, Special Needs Survey, and ALS Patients issues as abandoned for the reason that "SAPL, the sponsor and (except for the LOA issue) sole advocate of these three issues, has abandoned them."⁷ Responding to the motion, SAPL stated that it had never manifested an intent to "abandon" the remanded issues but, rather, had indicated in the January 19 letter simply that it did not "intend to participate in litigation on any issues that are unrelated to licensing."⁸ Asserting that the Board had made clear that it considered the remanded issues "irrelevant to licensing" because they are not "safety significant," SAPL maintained that, so long as that determination remained in effect, it had "no reason to participate in further proceedings before the Board."⁹

The Licensing Board took this explanation of SAPL's purpose to mean that, once the Commission approved the issuance of a full-power license for Seabrook,

⁵ LBP-90-12, 31 NRC at 428.

⁶ Letter from Robert A. Backus to Administrative Judge Ivan W. Smith *et al.* (January 19, 1990) at 1. Mr. Backus was referring to the Board's November 9, 1989 decision on, *inter alia*, the radiological emergency response plans for the Massachusetts portion of the Seabrook EPZ, which decision concluded with an authorization for the issuance of a full-power operating license. See LBP-89-32, 30 NRC 375, 651 (1989), *appeals pending*. That authorization required Commission endorsement of an "immediate effectiveness" review (see 10 C.F.R. § 2.764), which endorsement was forthcoming on March 1, 1990. See CLI-90-3, 31 NRC 219 (1990).

⁷ Applicants' Motion to Dismiss Abandoned Remand Issues (January 26, 1990) at 3-4. The applicants pointed to SAPL contentions 15, 18, and 25 as the genesis of those issues. *Id.* at 1-2.

⁸ Seacoast Anti-Pollution League's Objection to Applicants' Motion of January 26, 1990 (February 1, 1990) at 1.

⁹ *Id.* at 1-2. As the source of the view it attributed to the Licensing Board, SAPL cited both LBP-89-32, 30 NRC 375, and LBP-89-33, 30 NRC 656 (1989), *appeals pending*. By "unrelated" or "irrelevant" to licensing, SAPL apparently had in mind issues that, as the Licensing Board saw it, were not crucial to a determination on whether an operating license should be authorized, notwithstanding the prospect of further administrative review.

there would no longer be any possible issue "related to licensing" on which SAPL might participate.¹⁰ That approval having occurred on March 1,¹¹ and the license having issued shortly thereafter (on March 15),¹² the Board concluded that SAPL had effectively elected to withdraw and, accordingly, dismissed the intervenor from the proceeding before it.¹³

On the strength of that action, the Licensing Board undertook also to dismiss both the LOA and Special Needs Survey issues as abandoned by SAPL, their sponsor.¹⁴ The Board nonetheless went on to confront the merits of those issues and to hold that the concerns that had prompted our remand of them in ALAB-924 had been satisfactorily resolved.¹⁵

Moving on to the ALS Patients issue, the Board determined that, as remanded in ALAB-924, that issue was "distinct from the contentions SAPL litigated" and, thus, was not "SAPL's to abandon."¹⁶ On an analysis of the ingredients of the issue, the Board identified the subissues that required its further consideration.¹⁷

Finally, the Licensing Board tackled the remanded Beach Sheltering issue, together with the intervenors' motions to reopen the record on aspects of that issue. Following an extended discussion, the Board rejected the motions. The first was found to be moot or, at the least, superseded by the second.¹⁸ The latter motion was denied on the ground that it was untimely and, moreover, did not meet the other reopening criteria set forth in the Rules of Practice.¹⁹ Turning then to our remand, the Board asked us for further guidance in the form of both answers to certain specific questions and a response to two referred rulings.²⁰

B. On May 11, the MassAG, Coalition, and SAPL noted an appeal from the May 3 memorandum and order.²¹ The notice bore the signature of only counsel for the MassAG, who indicated that it was being submitted "on behalf of" the other intervenors as well (whose counsel of record were identified by name, address, and telephone number). On May 16, SAPL filed a separate notice of appeal, signed by its counsel, that was directed exclusively to the portion

¹⁰ LBP-90-12, 31 NRC at 429.

¹¹ As earlier noted, in CLI-90-3 issued on that date the Commission provided immediate effectiveness to the Licensing Board's decision (LBP-89-32) authorizing the issuance of a full-power license. *See supra* note 6.

¹² *See* letter from Mitzi A. Young, staff counsel, to members of this Board (April 26, 1990) at 2.

¹³ LBP-90-12, 31 NRC at 429-30.

¹⁴ *Id.* at 428, 431.

¹⁵ In the case of the LOA issue, the Board referred to the discussion in LBP-89-33, 30 NRC at 659-62. The Special Needs Survey issue was found subject to summary disposition against SAPL's claims on the basis of the record before the Board in 1986. *See* LBP-90-12, 31 NRC at 431-34.

¹⁶ *See* LBP-90-12, 31 NRC at 431-34.

¹⁷ *Id.* at 438-39.

¹⁸ *Id.* at 442.

¹⁹ *Id.* at 443-47. Those criteria are set forth in 10 C.F.R. § 2.734.

²⁰ *Id.* at 447-54. The Licensing Board stated that it would proceed with the remand while awaiting the requested guidance. *Id.* at 454.

²¹ In that filing, the intervenors sought other and immediate relief, which we denied in a May 18 unpublished order.

of the May 3 order related to its purported withdrawal and dismissal from the proceeding.

On May 17, the applicants moved to strike the May 11 notice of appeal. According to the applicants, none of the Licensing Board's rulings on the remanded issues has achieved the requisite finality to support appellate review at this time. In addition, treating the May 11 notice as being that of the MassAG alone,²² the applicants maintain that that intervenor lacks standing to complain of the disposition of the two issues that the Board determined had been raised and presented by SAPL. Similarly, the applicants assert, the MassAG is not in a position to complain of the dismissal of SAPL from the proceeding, an occurrence that the applicants acknowledge is now ripe for appeal by SAPL.²³

For its part, the staff asks us to dismiss both notices of appeal. Observing that it "generally supports" the position taken by the applicants in their motion to strike the May 11 notice, the staff goes on to insist that, in the circumstances, the Licensing Board correctly dismissed SAPL from the proceeding and therefore that party's May 16 notice should be rejected as well.²⁴

II.

A. As we have had occasion to observe in several recent rulings in this proceeding,²⁵ since our *Davis-Besse* decision in 1975 it has been settled that:

The test of "finality" for appeal purposes before this agency (as in the courts) is essentially a practical one. As a general matter, a licensing board's action is final for appellate purposes where it either disposes of at least a major segment of the case or terminates a party's right to participate; rulings which do neither are interlocutory.²⁶

Thus, as the Licensing Board stated,²⁷ the applicants expressly recognize,²⁸ and the staff does not dispute, so much of the May 3 order as dismissed SAPL from

²² In justification of such treatment, the applicants point to decisions of this Board, rendered in quite different contexts, that are said to hold that one party to an NRC proceeding is not entitled to speak on behalf of another party. Licensees' Response to Appeal Board Order of May 14, 1990, and Motion to Strike Notice of Appeal (May 17, 1990) at 18.

²³ *Id.* at 21-22. Apparently, on May 17 the applicants had not as yet received SAPL's May 16 notice of appeal challenging its dismissal.

²⁴ NRC Staff's Motion to Dismiss Notices of Appeal from LBP-90-12 (May 25, 1990) at 1-6. In its filing, the staff also explains why it believes the question of SAPL's status in the proceeding should be resolved now on motion, rather than after a full briefing of the SAPL appeal on that matter. *Id.* at 2 n.1; see *infra* p. 497.

²⁵ See, e.g., ALAB-920, 30 NRC 121, 124 (1989); ALAB-917, 29 NRC 465, 468 (1989); ALAB-906, 28 NRC 615, 619 (1988); ALAB-894, 27 NRC 632, 636 (1988).

²⁶ *Toledo Edison Co. (Davis-Besse Nuclear Power Station)*, ALAB-300, 2 NRC 752, 758 (1975) (footnotes omitted).

²⁷ LBP-90-12, 31 NRC at 454.

²⁸ See text, this page.

the proceeding possesses sufficient finality to be appealable at this juncture. That being so, there manifestly is no basis for rejection at the threshold of the appeal taken by SAPL from that dismissal.²⁹ Whether the Board was right in its conclusion that SAPL had voluntarily withdrawn is a question that must abide the event of a full briefing of the appeal.

In endeavoring to bypass the briefing process that ordinarily accompanies any properly taken appeal, the staff insists that resolution *now* of the matter of SAPL's status is necessary to decide the question whether an appeal lies with regard to the Licensing Board's treatment in the May 3 order of the LOA and Special Needs Survey issues.³⁰ We disagree. For one thing, although dismissing SAPL's contentions on those issues because of its purported withdrawal from the proceeding, the Licensing Board nonetheless went on to address the issues on the merits. Second, as shortly will be seen, irrespective of SAPL's current status with respect to its intervention in this proceeding, none of the substantive rulings in the May 3 order is appealable at this time. By the time those rulings become ripe for appellate review, we will likely have decided the status question following the briefing that is now in progress.³¹

B. Applying the *Davis-Besse* standard to the intervenors' appeal from the portions of the May 3 order concerned with the remanded issues and the motions to reopen, we conclude that the appeal is premature. To be sure, "[w]e are aware of no litmus paper test for determining what constitutes a 'major segment' of a particular case"³² and it is sometimes a "close call" on that score.³³ In this

²⁹ Given SAPL's separate May 16 notice of appeal, it is not necessary to decide whether the notice of appeal filed on May 11 by the MassAG on behalf of, *inter alia*, SAPL would have sufficed to put the status question before us. We nonetheless are constrained to observe that the applicants' view that the May 11 notice must be deemed that of the MassAG alone rests on a hypertechnical foundation enjoying little, if any, support in our precedents. Nevertheless, to avoid a resurrection of the applicants' reasoning on the point, we suggest that, in future filings in which his co-intervenors join, the MassAG list those intervenors and their counsel as joint submitters and, assuming he has been given authorization, sign it for them. This procedure should forestall the line of argument that the applicants employed here, which appears to be bottomed wholly upon the use of the "on behalf of" phraseology.

³⁰ See *supra* note 24.

³¹ Our unpublished May 18, 1990 order tolled the running of the time for the filing of briefs in support of the appeal from the May 3 memorandum and order taken by the intervenors collectively on May 11. No like action was taken with regard to SAPL's May 16 notice of appeal in our May 29 unpublished order addressed to that notice. (There appeared at the time to be little room for doubt that (as we now hold) SAPL's independent appeal reflected by the May 16 notice was not subject to summary dismissal as premature. This being so, we discerned no reason to put the briefing of that appeal on hold while we examined the question whether the other portions of LBP-90-12 covered by the May 11 notice of appeal were amenable to appellate review at this juncture.) Thus, as matters now stand, SAPL's brief in support of its separate appeal is due on June 15. See 10 C.F.R. § 2.762(b). It is our impression that SAPL is prepared to meet that deadline. See SAPL's Response to Appeal Board Order of May 29, 1990 (May 31, 1990) at 2.

It might be added that, even had there been substance to the staff's belief that the matter of SAPL's status required immediate resolution, the "motion to dismiss" the appeal addressed to that matter would still have been improvident. We are not aware of any circumstance in which an appeal might be subject to dismissal without briefing on the ground that it "lacks merit." Rather, the appropriate vehicle for seeking a speedy merits disposition of an assertedly insubstantial appeal is a motion for "summary affirmance."

³² ALAB-894, 27 NRC at 638.

³³ See, e.g., ALAB-920, 30 NRC at 124.

instance, however, we encounter no difficulty in resolving the question against finality.

To begin with, it appears on the face of the May 3 order that the ALS Patients and Beach Sheltering issues remain before the Licensing Board — i.e., everything that the Board had to say on those issues in the order was wholly interlocutory in character. Accordingly, in all events, any further appellate review with respect to them clearly should await their ultimate disposition below.³⁴ And, because the denied motions to reopen likewise were addressed to beach sheltering matters, it seems equally appropriate to defer our consideration of them until we have in hand the Licensing Board's final word on that subject. Among other things, it is at least possible that that word will either moot the challenge to the denial of the motions or cast the challenge in a different light.

That leaves the LOA and Special Needs Survey issues. Given our determination last month that the record evidence establishes that it is not necessary that teachers accompany the school children to reception centers in the event of a Seabrook radiological emergency,³⁵ it is unclear that the LOA issue retains much, if any, vitality.³⁶ Be that as it may, neither alone nor in combination can the Licensing Board's resolution of these two issues be regarded so clearly disposing of "a major segment" of this case as to warrant our examination of that resolution in advance of the Board's determination of the other remanded issues simultaneously concerned with aspects of the New Hampshire plan.

Our conclusion in this regard is fortified by the fact that, in their opposition to the motions of the applicants and staff, the intervenors merely state their belief that the "finality" standard has been satisfied.³⁷ Not only are we given scant elaboration of the underpinnings of that belief but the intervenors stress that, "in any event, their notice of appeal was protective."³⁸ In short, the intervenors themselves have manifested a decided lack of conviction that this is the time to

³⁴ In this connection, the intervenors appear to concede that the Beach Sheltering issue remains in an interlocutory posture but insist that we should invoke here our discretionary authority to review interlocutory orders by way of directed certification under 10 C.F.R. § 2.718(j). *See* Intervenor's Opposition to Motions to Strike Notice of Appeal of LBP-90-12 (June 4, 1990) at 6 [hereinafter Intervenor's Opposition]. No motion explicitly seeking that relief, however, is before us; all that the intervenors filed was a notice of appeal. Indeed, the intervenors have not satisfactorily demonstrated that either of the established tests for the exercise of our directed certification authority is met. *See Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977).

³⁵ *See* ALAB-932, 31 NRC at 407-08.

³⁶ In ALAB-924, 30 NRC at 342-43, we noted our agreement with the Licensing Board that "by performing their usual role as the custodians of the students in their charge, at least so long as those students remain on the grounds of the school, school personnel do not become 'providers' of services for which letters of agreement would be necessary."

³⁷ *See* Intervenor's Opposition at 8.

³⁸ *Id.* In context, it appears that the intervenors had in mind our previous indication that a protective notice of appeal is appropriate when there is any room for question respecting the finality for appeal purposes of a Licensing Board order. *See* ALAB-906, 28 NRC at 619. There is, however, another reason (having nothing to do with the finality question) why the intervenors deem their appeal to be protective in character. *See infra* note 39.

return to us, by way of an appeal, any of the issues that were remanded to the Licensing Board in ALAB-924.

For the foregoing reasons, except insofar as concerns the dismissal of SAPL from the proceeding, the pending appeals from the Licensing Board's May 3, 1990 memorandum and order, LBP-90-12, 31 NRC 427, are *dismissed* as premature.³⁹

It is so ORDERED.⁴⁰

FOR THE APPEAL BOARD

Barbara A. Tompkins
Secretary to the
Appeal Board

³⁹ In the May 11 notice of appeal, intervenors reiterated their conviction, set forth in earlier filings, that the Commission and its adjudicatory boards no longer possess any jurisdiction to act in this proceeding because of the intervenors' petitions for review of various agency actions relating to full-power Seabrook operation, which now are pending in the United States Court of Appeals for the District of Columbia Circuit. To date, the intervenors have not succeeded in obtaining a judicial endorsement of their position. We recognize, however, that the intervenors have not abandoned that position and that they filed their appeals with us simply out of an abundance of caution.

⁴⁰ The rulings referred to us in LBP-90-12, as well as possibly the questions posed in that order, will be addressed in a separate order.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

John H Frye, III, Chairman
Dr. Jerry R. Kline
Frederick J. Shon

In the Matter of

Docket No. 50-440-OLA
(ASLBP No. 90-605-02-OLA)

CLEVELAND ELECTRIC
ILLUMINATING COMPANY, *et al.*
(Perry Nuclear Power Plant,
Unit 1)

June 11, 1990

This Memorandum and Order reviews a petition to intervene and contention filed in response to a notice indicating that Licensees had applied for an amendment to their operating license which would delete cycle-specific parameter limits and other cycle-specific fuel information from the Perry Technical Specifications and substitute a provision allowing Licensees to set these limits in accord with NRC-approved methodology. The contention raises an argument that grant of the amendment will unlawfully deprive petitioner of its hearing rights under § 189a of the Atomic Energy Act. The Board indicated that in its view, because it was not possible to ascertain from the application whether the license amendment would vest any substantial discretion in Licensees in determining the cycle-specific parameter limits, the contention is admissible. Licensees and Staff were afforded an opportunity to seek reconsideration prior to the Board's order admitting the petitioner and its contention.

ATOMIC ENERGY ACT: CONTENT OF POWER REACTOR TECHNICAL SPECIFICATIONS

Section 50.36 of the Commission's regulations requires that power reactor Technical Specifications must include those matters as to which the imposition of rigid conditions or limitations is necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety. Cycle-specific parameter limits are such matters. The Commission may not abdicate its responsibility to review and approve license amendment applications that raise such matters by granting licensees substantial discretion in determining them.

ATOMIC ENERGY ACT: § 189a HEARING RIGHTS

An interested member of the public is entitled to an opportunity for hearing on an application for an amendment to a power reactor license.

MEMORANDUM AND ORDER (Granting Petition to Intervene)

This proceeding results from a petition to intervene and request for a hearing filed on March 8, 1990, by Ohio Citizens for Responsible Energy, Inc., (OCRE).¹ OCRE petitioned in response to a notice² that NRC was considering the issuance of a license amendment to The Cleveland Electric Illuminating Company (CEI).³ In addition to providing an opportunity to request a hearing, the notice stated that the NRC proposed to determine that the amendment involved no significant hazards considerations.

¹ OCRE is a private, nonprofit corporation that specializes in research and advocacy on issues of nuclear reactor safety and promotes the application of the highest safety standards to such facilities. It was an intervenor in the Perry operating license proceeding. In this proceeding, it seeks to intervene on behalf of its member and representative, Susan L. Hiatt, who resides within 15 miles of the Perry plant. CEI and Staff do not question OCRE's representations in this regard.

Additionally, The Utility Radiological Safety Board of Ohio (URSB) filed a statement pursuant to 10 C.F.R. § 2.715(c) in which it noted that, while the amendment in question would result in engineering efficiencies and administrative convenience, it would also deprive Ohio of the right to be consulted on license amendments provided by 10 C.F.R. § 50.91(b)(3) and to participate in the amendment process pursuant to 10 C.F.R. § 2.714. URSB urges the Commission to proceed with caution when considering such action and to adopt procedures that will preserve existing opportunities for public participation. URSB also requests that Staff take specific actions to consult with the State with regard to the amendment in question. Staff counsel is requested to bring URSB's letter to the attention of the appropriate Staff offices.

² See 55 Fed. Reg. 4282 (Feb. 7, 1990).

³ CEI is lead applicant for itself and Duquesne Light Company, Ohio Edison Company, Pennsylvania Power Company, and the Toledo Edison Company, co-owners of the Perry Nuclear Power Plant.

The license amendment in question removes cycle-specific core operating limits and other cycle-specific fuel information from the plant's Technical Specifications (TS) and replaces them with NRC-approved methodology for determining these limits. These limits provide the technical rules under which the reactor may be operated. The amendment application was prompted by Generic Letter 88-16, which noted that the processing of changes to the cycle-specific parameter limits generated using NRC-approved methodology constitutes an unnecessary burden on both Licensees and the Staff. The letter encourages Licensees to propose changes to their Technical Specifications that are consistent with Staff guidance. That guidance provides, in part, that:

This alternative consists of three separate actions to modify the plant's TS: (1) the addition of the definition of a named formal report that includes the values of cycle-specific parameter limits that have been established using an NRC-approved methodology and consistent with all applicable limits of the safety analysis, (2) the addition of an administrative reporting requirement to submit the formal report on cycle-specific parameter limits to the Commission for information, and (3) the modification of individual TS to note that cycle-specific parameters shall be maintained within the limits provided in the defined formal report.

In the evaluation of this alternative, the NRC staff concluded that it is essential to safety that the plant is operated within the bounds of cycle-specific parameter limits and that a requirement to maintain the plant within the appropriate bounds must be retained in the TS. However, the specific values of these limits may be modified by licensees, without affecting nuclear safety, provided that these changes are determined using an NRC-approved methodology and consistent with all applicable limits of the plant safety analysis that are addressed in the Final Safety Analysis Report (FSAR). Additionally, it was concluded that a formal report should be submitted to NRC with the values of these limits. This will allow continued trending of this information, even though prior NRC approval of the changes to these limits would not be required.

The current method of controlling reactor physics parameters to assure conformance to 10 CFR 50.36 is to specify the specific value(s) determined to be within specified acceptance criteria (usually the limits of the safety analyses) using an approved calculation methodology. The alternative contained in this guidance controls the values of cycle-specific parameters and assures conformance to 10 CFR 50.36, which calls for specifying the lowest functional performance levels acceptable for continued safe operation, by specifying the calculation methodology and acceptance criteria. This permits operation at any specific value determined by the licensee, using the specified methodology, to be within the acceptance criteria. The Core Operating Limits Report will document the specific values of parameter limits resulting from licensee's calculations including any mid-cycle revisions to such parameter values.⁴

In its petition OCRE agreed with CEI and Staff that the amendment involves purely an administrative matter that raises no significant hazards considerations as the latter term is defined in 10 C.F.R. § 50.92(c). It stated that its intent is to raise a legal issue, *viz.*: that the grant of the amendment will deprive OCRE

⁴ Enclosure to Generic Letter 88-16 at 1-2.

members of the legal means to participate in the consideration of significant changes to the plant's cycle-specific operations.

Both CEI and Staff attacked OCRE's standing. CEI pointed out that OCRE concedes that the amendment is purely administrative and involves no significant hazard. Thus, in CEI's view, OCRE has not alleged an injury in fact that would support intervention. CEI views OCRE's alleged legal injury as remote and speculative because it amounts to no more than the possibility that OCRE might be precluded from raising an issue in the future.⁵

Following our direction to it, OCRE filed its contention and responded to CEI's and Staff's arguments. OCRE's contention states:

The Licensee's proposed amendment to remove cycle-specific parameter limits and other cycle-specific fuel information from the plant Technical Specifications to the Core Operating Limits Report violates Section 189a of the Atomic Energy Act (42 USC 2239a) in that it deprives members of the public of the right to notice and opportunity for hearing on any changes to the cycle-specific parameters and fuel information.

OCRE notes that CEI concedes that this amendment will have the effect of eliminating most requests for amendments to change the cycle-specific parameters. OCRE maintains that this results in a direct and palpable injury to its legal right to notice and opportunity for hearing on such requests, and that § 2.714 clearly contemplates that such a purely legal injury will support standing.

In support of its contention, OCRE argues that, because the amendment would permit the changing of core operating limits without public notice and an opportunity to request a hearing, the only effect of the amendment is to exclude the public from the process of setting these limits. OCRE maintains that this is contrary to § 189a of the Atomic Energy Act and a "strong Congressional intent to provide for meaningful public participation."⁶ OCRE further maintains that the only opportunity for public participation that would remain if the amendment is granted, 10 C.F.R. § 2.206, is not adequate. OCRE believes that the amendment would permit CEI to operate in ways that it otherwise could not without seeking and receiving specific license amendments. Thus OCRE argues that each time CEI does so, the Commission will be granting a *de facto* license amendment on

⁵ See CEI's March 23, 1990 Answer to OCRE's Petition at 2-5. In essence, Staff agrees with CEI's position. It points out that no injury in fact was alleged and that, because OCRE merely raises the possibility that it may wish to litigate future matters, there is nothing to litigate in this proceeding. See Staff's March 28, 1990 Answer at 5-7.

On April 2, we issued a Memorandum and Order directing OCRE to file its contention and respond to CEI's and Staff's arguments on standing. OCRE's response and contention were filed on April 23. Following receipt of that contention, we directed CEI and Staff to respond to that contention and afforded OCRE an opportunity to reply to those responses. CEI responded on May 9, stating only that in its view, OCRE's contention meets the requirements of 10 C.F.R. § 2.714(b)(2). Staff responded on May 18. OCRE replied on June 1.

⁶ See OCRE's April 23 Filing of Contention at 4.

which it must offer a hearing. OCRE relies on *Sholly v. NRC*, 651 F.2d 780, 791 (D.C. Cir. 1980), *vacated on other grounds*, 435 U.S. 1194 (1983), and *Massachusetts v. NRC*, 878 F.2d 1516, 1521 (1st Cir. 1989).

While CEI states only that OCRE's contention meets the basis and specificity requirements of § 2.714(b), Staff opposes the contention on the merits. Staff points out that the Commission has determined that the TS of nuclear plants have become filled with unnecessary information and as a result, they are cumbersome and may constitute a hindrance to safe operation, citing the Commission's *Interim Policy Statement on Technical Specification Improvements* of February 3, 1987.⁷ Staff states that the removal of unnecessary information from the Technical Specifications must not operate to remove the essential requirements concerning operation. Thus, in this case, the removal of the cycle-specific parameter limits will be accompanied by inclusion in the Technical Specifications of the requirement that the cycle-specific parameter limits are to be determined in accord with NRC-approved methodology. Staff believes that limits so determined will not affect the safety of the unit, and that no reduction in safety margins will take place.

Staff points out that the Commission's requirements concerning what must be included in Technical Specifications are set forth in 10 C.F.R. § 50.36. Staff notes that *Portland General Electric Co.* (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 271-74 (1979), discusses this issue and concludes that

technical specifications are to be reserved for those matters as to which the imposition of rigid conditions or limitations upon reactor operations is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety.

Id. at 273 (footnotes omitted, emphasis supplied). Staff believes that removal of the cycle-specific parameter limits in the circumstances contemplated here is in accord with the Appeal Board's conclusion in *Trojan*.

Staff recognizes that OCRE is entitled to a hearing on the question of whether this amendment should be granted. However, Staff does not believe that OCRE's contention is admissible because, in Staff's view, it is related to some future contingency, not to the amendment in question. For this reason, Staff views OCRE's reliance on the *Sholly* and the *Massachusetts* decisions, *supra*, as misplaced. Those decisions involved Staff approvals of licensee applications that should have been opened to requests for hearing, but were not. In contrast, Staff believes that OCRE only raises the possibility that such an event might occur in the future if this amendment is granted.

⁷ See 52 Fed. Reg. 3788 (Feb. 6, 1987).

We agree with OCRE that injury to a purely legal interest will support standing. Clearly, 10 C.F.R. § 2.714 contemplates this result. Subsection 2.714(b)(2) requires that each contention state the matter of *law or fact* that it raises and subsection 2.714(b)(2)(iii) requires sufficient information to demonstrate that a genuine dispute exists with respect to an issue of *law or fact*. Subsection 2.714(e) provides that contentions raising purely legal issues must be decided on the basis of briefs and oral argument. In promulgating the recent amendments to § 2.714, the Commission noted that purely legal contentions were admissible, but added subsection 2.714(e) to clarify how they should be handled.⁸ Thus OCRE has standing to request a hearing based on its alleged legal injury.

The question remains whether OCRE's contention is admissible. We agree with Staff's analysis of this issue up to a point. Staff is correct that the Commission has been concerned with the detail contained in plant Technical Specifications and has sought to take action to alleviate that situation. Generic Letter 88-16 is a part of that effort. In that letter, Staff requested that Licensees seek the sort of amendment that is at issue here. We also agree with Staff that 10 C.F.R. § 50.36 and the *Trojan* decision control the content of Technical Specifications.

Staff does not believe that OCRE's contention is admissible because, in Staff's view, it is related to some future contingency, not to the amendment in question. In its contention, OCRE maintains that the amendment will result in changes being made to cycle-specific parameter limits without the opportunity for a hearing as is presently the case. CEI and Staff agree that this is so. OCRE contends that this change would violate the provisions of § 189a of the Atomic Energy Act. We believe that OCRE has stated a valid contention. It may be that the amendment at issue would improperly deprive OCRE of hearing rights with respect to future changes in cycle-specific parameter limits.

The answer to that question depends on whether the changes that the amendment would make are in accord with § 50.36 and the *Trojan* decision. As noted above, that decision interprets § 50.36 to require that

those matters as to which the imposition of rigid conditions or limitations upon reactor operations is deemed necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety

must be included in the Technical Specifications. Clearly, cycle-specific parameter limits are necessary to obviate the possibility of an event that could immediately threaten the public health and safety. Staff states that the amendment in question is not contrary to the *Trojan* decision because it will not result

⁸ See 54 Fed. Reg. 33,168 (Aug. 11, 1989); 1 NRC Rules and Regulations 2 SC 52, 56.

in any reduction in safety margins. However, in our view that is the issue raised by OCRE's contention.

Leaving it to CEI (or any other licensee) to determine cycle-specific parameter limits in accord with approved methodology but without prior Staff approval would only be proper, in our view, if the methodology by which they are determined does not allow for excessive discretion or judgment on the part of CEI. We are unable to determine from the license amendment application or from Generic Letter 88-16 whether such discretion would be permitted. If excessive discretion were permitted the licensee, the amendment could constitute an unlawful abdication of Commission responsibility to pass on the question of whether a licensee's activities meet the standards of the Atomic Energy Act and the concomitant responsibility to provide the public an opportunity to participate in that process.

The question here at issue, while ostensibly only a question of law, is not barren of subtle factual content. The legal issue is whether the change will unlawfully deprive OCRE of participation in the setting of the safety-significant cycle-specific parameter limits. But if the methodology specified for the calculation of those parameters and the specification of fuel design are such as to rigidly determine the cycle-specific parameter limits without the use of engineering judgment, OCRE would lose no legal rights by the change. (OCRE's greatest loss would be the dubious privilege of checking CEI's arithmetic.) On the other hand, if, as a matter of fact, substantial engineering judgment is needed to derive the parameters from the bases to be included in the new tech specs, the change would indeed deprive OCRE of its legal right to participate in the setting of safety-significant parameters. Thus we see wrapped within the outer layer of the legal question a more recondite question of fact: To what extent does the material to be included within the new Technical Specifications inexorably specify the cycle-specific parameter limits that would be removed? If some engineering judgment is permitted, is it permissible under the Atomic Energy Act for CEI to exercise it? We believe that these issues would benefit from expert testimony.

Because we believe that OCRE has stated a valid contention, it is unnecessary for us to address the argument that 10 C.F.R. § 2.206 provides OCRE an appropriate means to participate in the setting of cycle-specific parameter limits. OCRE has challenged the legality of the amendment under § 189a of the Atomic Energy Act. If OCRE is successful in that challenge, there will be no need for it to consider using § 2.206. On the other hand, if it is not successful, § 2.206 would appear to be OCRE's only means of participating.

Our reasoning in reaching our tentative conclusion that OCRE has stated a valid contention has extended beyond the arguments advanced by OCRE, CEI, and Staff. Consequently, we are deferring a final ruling admitting OCRE and setting a schedule for resolution of its contention in order to permit CEI and

Staff to move for reconsideration. CEI and Staff may seek reconsideration of this Memorandum and Order within 10 and 15 days of its service, respectively. It is so ORDERED.

**THE ATOMIC SAFETY AND
LICENSING BOARD**

**Frederick J. Shon
ADMINISTRATIVE JUDGE**

**Dr. Jerry R. Kline
ADMINISTRATIVE JUDGE**

**John H Frye, III, Chairman
ADMINISTRATIVE JUDGE**

**Bethesda, Maryland
June 11, 1989**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Peter B. Bloch, Chair
Dr. George C. Anderson
Elizabeth B. Johnson

In the Matter of

Docket Nos. 50-250-OLA-5
50-251-OLA-5
(ASLBP No. 90-602-01-OLA-5)
(Technical Specifications
Replacement)
(Facility Operating Licenses
Nos. DPR-31, DPR-41)

FLORIDA POWER AND LIGHT
COMPANY
(Turkey Point Nuclear Generating
Plant, Units 3 and 4)

June 15, 1990

The Licensing Board admits an intervenor after detailed consideration of issues of standing, timeliness, and the admissability of contentions. Five of fifty-six contentions are admitted. The admission of safety issues is based on genuine issues of fact arising because of Applicant's admission that a particular change in technical specifications is a "relaxation" and because of an error or omission in the accompanying analysis. The admission of environmental issues is based on genuine issues of fact raised with respect to safety issues that might ultimately result in a finding that the change in specifications is "a major federal action."

RULES OF PRACTICE: STANDING

An organization may gain standing based on the standing of a “member,” providing that the member is more than just a passive contributor without any control over its operation. Furthermore, the “member” on whom membership is based must be a member for herself and not for another organization whose standing has not been demonstrated.

RULES OF PRACTICE: DEFAMATORY ALLEGATIONS

Allegations of harassment and intimidation must be documented. After an opportunity for documentation has been afforded, unsupported defamatory allegations may be struck from the record.

RULES OF PRACTICE: WITHDRAWAL OF BASIS FOR STANDING; NONLAWYER

A nonlawyer representing an organization stated — as part of a filing that alleged harassment and intimidation — that he no longer authorized that organization to represent him. Nevertheless, since no other basis for standing exists and his withdrawal would deprive the organization of standing, it is appropriate to give the nonlawyer a second chance to consider the implications of his withdrawal.

RULES OF PRACTICE: ADMISSION OF CONTENTIONS; 10 C.F.R. § 2.714(b)(2)

In applying the Commission’s newly adopted standard for the admission of contentions, the Board finds that a petitioner must identify an error or omission in Applicant’s analysis in order to gain admission for its contention. Merely stating, in reliance on an admission of Applicant, that a change in its technical specifications is a “relaxation” is not sufficient to gain admission for a contention when Applicant’s analysis accompanies its admission. Petitioner must also identify an error or omission in the accompanying analysis to create a genuine issue of fact and gain admission for its contention.

With respect to environmental issues, the Board admitted two contentions because genuine issues of fact with respect to safety contentions could ultimately result in a finding that this case entails “a major federal action.”

TECHNICAL ISSUES DISCUSSED

For a pressurized water reactor: risks during out-of-service time; combined limit for thermal power, pressurizer pressure, and the highest operating loop coolant temperature; change in mode reduction requirements; RCS boron concentration; BAT boron concentration surveillance; outage time for one channel of heat tracing; rod drop time.

MEMORANDUM AND ORDER

(Prehearing Conference Order: Parties and Contentions)

Memorandum

The purpose of this proceeding is to determine whether or not Florida Power and Light Company (Applicant) may amend the technical specifications for its plant pursuant to "the NRC and industry initiative to standardize and improve technical specifications for nuclear plants. *See* 54 Fed. Reg. at 50295 [Dec. 5, 1989]." Applicant's purpose in seeking to change its technical specifications is to benefit from industry experience with technical specifications and to facilitate a "uniform understanding of requirements."¹ However, a petition has been filed that asserts that the change in technical specifications is unsafe.

During the litigation of this case, the Staff may decide to permit the proposed change in technical specifications after comments have been received and considered on the proposed determination of the Staff of the Nuclear Regulatory Commission (Staff) that "the amendment request involves no significant hazards considerations." 55 Fed. Reg. 20,218, 20,227-28 (May 15, 1990).

On Friday, March 23, 1990, we held a prehearing conference in this case in Miami for the purpose of determining whether either of the petitioners — Mr. Thomas J. Saporito and the Nuclear Energy Accountability Project (NEAP) — should be admitted as a party. A purpose of this memorandum is to determine whether party status should be granted. To reach that determination, we must decide whether or not a petitioner: (1) has standing, and (2) has submitted at least one admissible contention. Both prongs of this test must be met for a petitioner to be granted party status.

With respect to the standing issue, the Board ruled at the prehearing conference that it would accept the position of Applicant and the Staff that Mr. Saporito had standing² and that, based on his standing, NEAP — which Mr. Saporito

¹ "Applicant's Response to Amended Petition to Intervene" (Applicant's Response), March 16, 1990, at 5.

² Mr. Saporito works over 40 hours a week as a teacher at the ATI Career Training Center, 1 N.E. 19th Street, Miami, Florida 33132, and this is well within the 50-mile geographical zone of interest.

serves as a director — also would have standing. The validity of this ruling was, however, placed under fresh doubt when Mr. Saporito filed a “Notice of Withdrawal from Proceeding” on April 1, 1990. In that petition, he alleged that Applicant had intimidated and harassed him; and he therefore asked to withdraw both as an individual party and as the basis on which NEAP might be said to have standing. On April 24, 1990, we established a schedule for resolving this motion through the issuance of an unpublished memorandum and order concerning the Motion to Withdraw.

The first part of this Memorandum will address the merits of the Motion to Withdraw and the standing issue. The second part of this Memorandum will address the question of whether any contentions are admissible.

I. MOTION TO WITHDRAW AND STANDING

In our April 24 memorandum, we discussed in detail Mr. Saporito’s charge of intimidation and we invited him to resolve that charge, which he has not done. Our discussion, which now contains our reasons for denying Mr. Saporito’s motion to withdraw as the person on whom NEAP relies for standing, follows:

II Unproven Allegations and Ambiguities

A Unproven Allegations

Mr. Saporito stated in his motion that he was withdrawing both as an individual Petitioner and as a person on whom NEAP relies for standing because he felt intimidated by actions of the Applicant. However, he has not persuaded the Board that there is any valid reason for his serious charge of intimidation.³ [Footnote in original.]

An allegedly intimidating event of which we have been informed is a letter of March 7, 1990, sent by Mr. John T. Butler, counsel for Applicant, to Mr. Saporito’s employer. We have examined that letter and have concluded that it was a simple factual inquiry for the purpose of confirming facts concerning Mr. Saporito’s employment. There is nothing in the letter that we consider to be intimidating. Indeed, all the letter may have done with respect to Mr. Saporito’s employment relationship is to bring to the employer’s attention, in a neutral manner, a fact that is common knowledge and that Mr. Saporito reasonably must have expected his employer to learn during the course of this litigation: that Mr. Saporito is involved in a case affecting Florida Power and Light, a customer of Mr. Saporito’s employer.

In addition to the March 7 letter, Mr. Saporito’s employer also received a copy of a letter sent by Mr. Butler to Mr. Saporito on March 19. In that letter, Mr. Butler assured Mr. Saporito that “neither Florida Power & Light Company nor I had any hostile or coercive motives in making the inquiry [of March 7].” Since the contents of Mr. Butler’s letter was not directly relevant to any interest of Mr. Saporito’s employer, there does not appear to

³ We do not find that “Intervenor’s Answer to Applicant’s April 13, 1990 Response . . .,” April 20, 1990, is a permissible filing because it is a reply to Applicant’s answer and is not provided for under the rules. Furthermore, we do not find any good cause for permitting Petitioner to reply because it has not demonstrated that there was anything in the answer that could be considered a surprise.

be any strong reason for him to have sent a copy of the letter to the employer and — in light of Mr. Saporito's earlier complaint — Mr. Butler might easily have anticipated that Mr. Saporito could have felt coerced by this procedure. Mr. Butler could have avoided the appearance of coercion by not copying the employer. However, he may also have felt that the letter would reassure the employer about there being no coercive intent and we find that the routine copying of that letter does not, by itself, demonstrate coercion to this Board.

After Mr. Saporito complained in a filing of March 9, 1990, that the March 7 letter was intimidating, we had an internal Board discussion about the allegation, but we did not communicate to anyone our conclusion that no intimidation had been demonstrated to us and that there was, therefore, no need for us to act on Mr. Saporito's filing, which did not request any specific action on our part. At the Prehearing Conference that we held in Miami on March 23, 1990, Mr. Saporito apparently also was in possession of a copy of the March 19 letter. Yet, Mr. Saporito did not raise the question of coercion at that time, and we did not rule on it.

Subsequently, we have learned from Applicant⁴ [footnote in original] that Mr. Saporito filed a complaint with the Department of Labor concerning the March 7 letter; and that his complaint has been dismissed.

It is important to the Licensing Board to get to the bottom of this matter. It is not acceptable for one party to coerce another in a proceeding of this importance. *It also is not acceptable for a party to accuse another of coercion on our record without supporting facts* [emphasis supplied].

We also admit to being puzzled by charges of intimidation in this matter, for Mr. Saporito's fear of intimidation does not keep him from: (1) continuing to make public accusations against Applicant, (2) filing charges before the Department of Labor against Applicant, or (3) continuing to represent NEAP — though, apparently, in some "nonpersonal" manner that causes him to want not to be the source of standing for NEAP.

On May 5, 1990, Mr. Thomas J. Saporito, Jr., filed "NEAP's Response to the ALSB's Memorandum and Order." In that filing, Mr. Saporito had an opportunity to address the Board's serious concern that one party should not accuse another of coercion without supporting facts. He did not address that concern.⁵ He also did not address the following question asked by the Board:

⁴ Applicant's Response to Notice of Withdrawal from Proceeding, April 13, 1990 (Response), at 3. According to Applicant, Mr. Saporito made a complaint with the Department of Labor under the "Whistleblowing" Statute, section 210 of the Energy Reorganization Act (42 U.S.C. § 5851), based on the March 7 letter; his complaint was dismissed by a Letter of April 2, 1990, from Jorge Rivero, Assistant Director, Employment Standards Administration, Wage and Hour Division, U.S. Department of Labor.

⁵ "Applicant's Reply to NEAP's Response to the ASLB's Memorandum and Order" was filed May 17, 1990, and the "NRC Staff's Reply to NEAP's Response to Licensing Board's Memorandum and Order of April 24, 1990" was filed May 24, 1990. Both parties chose to ignore Petitioner's charge of intimidation and did not address whether or not we should grant all or part of Mr. Saporito's motion to withdraw. This is, of course, not surprising; Mr. Saporito's withdrawal is essential to Applicant's and Staff's argument challenging NEAP's standing based on another "member" who claims to be a basis for standing. However, we are permitted — in the interest of justice and to prevent manipulation of this Board — to address an apparent attempt by a party to raise a procedural issue frivolously, whether or not another party would have us do so.

(Continued)

If he [Mr. Saporito] is a member [of NEAP], then why is he not willing to authorize himself — acting for NEAP — to represent himself?

Based on this failure to supply information, we conclude that Mr. Saporito was not subject to any coercion and we order that all material alleging coercion shall be considered to be struck from our record. We also caution Mr. Saporito not to make defamatory charges in this proceeding unless he is prepared to prove them. Further unsubstantiated attacks could constitute grounds for barring him from participation.

In light of our finding that Mr. Saporito was not coerced and in light of his failure to explain why he is not willing to authorize himself to represent himself, we consider his motion to withdraw himself as the basis for NEAP's standing to be frivolous and we deny that motion — whose effect would be to place in controversy a procedural issue concerning whether another person could be the basis for NEAP's standing.⁶ (Were Mr. Saporito a lawyer, fully informed of the possible consequences of his motion to withdraw, we might grant his motion and rule that NEAP is no longer a party. However, given Mr. Saporito's lay status, our denial of his motion will give him a chance to consider the full consequences of his request.)

However, Mr. Saporito's motion to withdraw as an individual is granted because it does not create any new issues for us to decide. We caution Mr. Saporito not to engage in procedural maneuvers whose principal purpose appears to be the creation of new issues for decision in this case.

If Mr. Saporito continues to withdraw himself as the basis for NEAP's standing, he may do so. However, he is the sole basis on which NEAP relies and NEAP has already had all the opportunity it needs to establish standing; it may not file any further documents alleging a new basis for standing. Hence, if Mr. Saporito fails to assure us of his willingness to have NEAP represent him (by complying with ¶2 of our order, below) the entire basis for standing for NEAP fails and this case will be dismissed.

We note that (were Mr. Saporito's motion granted) we are inclined to deny standing based on the alleged standing of Shirley Brezenoff — whom we find: (1) has no control, either formal or through her membership activities (which she did not discuss in her affidavit despite our invitation to do so) over NEAP, and (2) became a member "For Quad City Citizens for Nuclear Arms Control" and not for herself. (See her certificate of membership.) Therefore, she lacks the indicia of membership requisite to provide a basis for NEAP's standing. *Health Research Group v. Kennedy*, 82 F.R.D. 21 (D.D.C. 1979); *Sierra Club v. Morton*, 405 U.S. 727, 739 (1972); *Hunt v. Washington State Apple Advertising Commission*, 432 U.S. 333, 343 (1977); *Clonlara, Inc. v. Runkel*, 722 F. Supp. 1442, 1451 (E.D. Mich. 1989); compare *Consolidated Edison Co. of New York* (Indian Point, Unit 2), LBP-82-25, 15 NRC 715, 736 (1982).

⁶ At the beginning of the prehearing conference, Mr. Saporito revealed his strong feelings that his own standing was not necessary for NEAP's standing. Tr. 5-6. At that time, he acknowledged that the issue was moot. Tr. 6. However, he has since taken steps calculated to raise the issue that we all considered moot. The Board is not pleased by this apparently contrived attempt to cause us to consider an issue that all agreed was moot.

II. CONTENTIONS

A. Legal Setting

This case represents one of the first in which the Commission's recently amended contentions requirement is applicable. Consequently, it is appropriate to set forth the full contentions requirement as it appears in 10 C.F.R. § 2.714(b)(2):

Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide the following information with respect to each contention:

(i) A brief explanation of the bases of the contention.

(ii) A concise statement of the alleged fact or expert opinion on which the petitioner intends to rely in proving the contention at the hearing, together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion.

(iii) Sufficient information (which may include information pursuant to paragraphs (b)(2)(i) and (ii) of this section) to show that a genuine dispute exists with the applicant on a material issue of law or fact. This showing must include references to the specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, *if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.* On issues arising out of the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report. The petitioner can amend those contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's document. [Emphasis supplied.]

B. General Description of Contentions

Although Petitioner submitted lengthy contentions that purported to comply with the contention requirements now in effect, on examination we find that they consist primarily of allegations — based on Applicant's own admissions — that Applicant has in some instances relaxed requirements in the course of amending its technical specifications. Generally, Petitioner failed to advance an independent basis for any of its contentions. Instead, Petitioner relied entirely on alleged omissions in Applicant's analyses and said it intended to support its proposed contentions by Mr. Saporito's expert opinion, by interrogation of Applicant's witnesses, and by discovery, without any indication of the analytical basis for further inquiry. These allegations of omission were always based on assertion, without any specific source of evidence concerning the importance of the alleged omission.

The question this presented to us was: could an allegation, based solely on an admission of Applicant, that some of its technical specifications are being “relaxed” — while others are being made more rigorous — form the basis of a contention that should be admitted under the newly applicable rules? We have concluded that there is no simple answer to this question but that we must look further and examine Applicant’s explanations for why a particular relaxation is not hazardous. If Applicant provides a clear explanation that is not directly challenged by Petitioner — through evidence or citations to sources or reasoning — then Applicant’s admission of a “relaxation” is not by itself sufficient to admit a contention. If, however, Applicant’s “analysis” is merely conclusional and therefore fails to provide any assurance that its “relaxation” is safe, then we accept Petitioner’s reliance on Applicant’s admission as sufficient grounds for the admission of a contention.

Applying this standard, Petitioner NEAP has presented contentions that are properly admitted. Since NEAP provisionally has standing,⁷ based on Mr. Saporito’s membership, NEAP may be a party and may be referred to as “Intervenor.”

“Petitioners Amended Petition for Intervention and Brief in Support Thereof (Amended Petition),” March 5, 1990, contains fifty-six proposed contentions. The first two contentions are environmental and shall be reserved for later discussion. The twenty-fifth contention relates to facts that are not related to the change in technical specifications, as we shall discuss below. The other contentions (3-24 and 26-56) follow a uniform format that we shall proceed to analyze, for the purpose of communicating accurately the issue with which we were faced.⁸

In Table 1 we set forth Petitioner’s third contention verbatim. We have added to the contention our titles, which we insert in all capital letters, for the purpose of indicating the apparent purpose of each section of the contention. Then, in the right margin, we have inserted our comments on the individual sections of the contention.

We note that Contention 3 relates to a change in wording of the technical specifications and is in this respect different from some of the other contentions.⁹ However, the basic approach is the same for all contentions.

In the succeeding portion of this memorandum, we will analyze each section of the transcript of the prehearing conference and the related documents to determine whether the criteria for admission of contentions are met. In those

⁷ See Ordering ¶ 2, *infra*.

⁸ We consider it our obligation to set forth our reasoning fully both because this facilitates review of our determination and the use of our decision by future parties who wish to be guided by prior cases.

⁹ All the participants agreed with the Board that the proper place to evaluate the effect of the omission of definitions is with respect to those substantive sections in which the omission of a definition changes the required action. Tr. 22-32.

analyses, we discuss the rationale advanced by Applicant for determining that each "relaxation" does not have significant safety consequences. Because three of the Applicant's explanations with respect to safety contentions are unsatisfactory, we admit three safety contentions and two environmental contentions.

TABLE 1
UNIFORM FORMAT FOR CONTENTIONS

NOTE: Petitioner's heading for the contention we analyze is: *Contention 3: Statement of the issue of law or fact to be raised or controverted.*

**Descriptive Title (Provided by Board)
and Text of Contention 3**

Board Comments

PURPOSE STATEMENT

(a) The license amendments requested by the Applicant to the Turkey Point operating licenses DPR-31 and DPR-41 for Turkey Point Units 3 and 4 respectively, would authorize replacement of the current plant Custom Technical Specifications (CTS), with a set of technical specifications based on the Westinghouse Standard Technical Specifications (STS).

This statement is true. However, it does not provide the basis for a contention.

FEAR OF CONSEQUENCES

(b) The license amendments sought by the Applicant, to revise the Turkey Point (CTS) with the Westinghouse (STS) will cause the plant to be operated unsafely because of the *relaxed safety margins* contained in the Westinghouse (STS), resulting in a release of radiation and fission products into the environment which will enter the food chain causing loss of life, due to cancer and other related illnesses, to the general public and radioactively contaminate hundreds of miles of land and privately owned property and homes, solely dependent on

This statement contains general fears that are not grounded on any technical concerns about the proposed changes in technical specifications.

TABLE 1 Continued

the prevailing air currents. [Emphasis added.]

DESCRIPTION OF CHANGES

(c) Specifically, the amendments would change the CTS at specification 1.0 and Table 4.1-1 omitting the following Technical Specification definitions: 1. SAFETY LIMITS, 2. LIMITING SAFETY SYSTEM SETTINGS, 3. LIMITING CONDITIONS FOR OPERATION, 4. PROTECTIVE INSTRUMENTATION LOGIC, 5. DESIGN POWER, 6. REACTOR COOLANT PUMPS, 7. ENGINEERED SAFETY FEATURES, 8. REACTOR PROTECTION SYSTEM, 9. SAFETY RELATED SYSTEMS AND COMPONENTS, 10. PER ANNUM, 11. REACTOR COOLANT SYSTEM PRESSURE BOUNDARY INTEGRITY, 12. COOLANT LOOPS, 13. HEAVY LOADS.

Statement of a change from the CTS to the STS. No statement of the basis for a contention. Note: this is the only part of the uniform format that changes from contention to contention. Often this part alleges a "relaxation."

Note: the next portion of the discussion of Contention 3 is preceded by the following title: *Concise statement of the alleged facts or expert opinion on which the Petitioner intends to rely in proving the contention at the hearing.*

SERIOUSNESS OF NUCLEAR ACCIDENT

(a) Petitioners would state here that the alleged facts supporting Contention 3 are that any release of radiation and fission products from a nuclear power plant adversely affect human life and the environment as a whole and that the relaxed safety margins evidenced in the Applicant's (RTS) provide the means and method for such a release of radiation and fission products into the environment.

Petitioners state their fears. They do not state how Applicant's STS will contribute to those fears. In other words, "the means and method" are not specified. Petitioners cite Applicant's word: "relaxed."

TABLE 1 Continued

NAME OF WITNESS¹⁰

(b) Petitioners will rely on the expert opinion of Thomas J. Saporito, Jr., Executive Director of the Nuclear Energy Accountability Project (NEAP), in support of Contention 3. *See Affidavit of Thomas J. Saporito, Jr.*

Petitioners name a witness without providing any idea about what he may say.

CROSS-EXAMINATION

(c) Petitioners will rely on cross-examination of Applicant's witnesses to support Contention 3.

Petitioners fail to state any analytical basis for cross-examination.

GENERAL REFERENCES

References to those specific documents on which the Petitioner intends to rely to establish those facts or expert opinion:

(1) Applicant's (CTS) and (RTS), (2) Applicant's Safety Evaluation for No Significant Hazards Consideration, (3) Applicant's Undated Final Safety Analysis Reports, (4) Federal Register Volumes 48, No. 67 at 14870, (5) Other documents which Petitioners may find through further research or which Petitioners may obtain through discovery in these proceedings.

There are no specific citations.

III. DISCUSSION OF SPECIFIC CONTENTIONS

A. Withdrawn Contentions

The following contentions were withdrawn by the Petitioner at the prehearing conference and are no longer at issue:

¹⁰ The same witness, Thomas J. Saporito, Jr., is specified for all the contentions.

- all portions of Contention 3 other than those related to the definitions of “safety limits” and limiting safety system settings. [Tr. 22, 29 (Staff statement, uncontradicted by Petitioner).]
- the portion of Contention 3 relating to the omission of the definitions of “safety limits” and limiting safety system settings [Tr. 27-29, 30, 31-32], with the understanding that these omissions may be considered with respect to particular portions of the technical specifications where it is alleged that the change has an effect.
- Contention 10 [Tr. 102].
- All of Contention 12 but that part that deals with the frequency of RCS boron concentration surveillance.
- Contention 13 [Tr. 130-31].
- Contention 14 except for the portions stating: (1) that the boric acid pump need only be available when its associated flow path is required to be operable, and (2) permitting hot standby for 108 hours after loss of operability of a charging pump. [Tr. 131-43.]
- Contentions 15, 17, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56 [Tr. 144, 150, 154, 158, 163,¹¹ 168, 175, 181].

B. Contention 4

Petitioner’s proposed Contention 4 states:

Specifically, the amendments would change the CTS at specification 1.0 and Table 4.1-1. Surveillance tables pages 3-8 to 3-10 of the RTS utilize frequency codes which are defined in Table 1.1 in section 1 at page 1.7 of the RTS.

Therefore, plant operators will experience increased and greater difficulty using the surveillance tables at pages 3-8 to 3-10 of the RTS since the operators will have to refer back to the frequency code table in Section 1, at page 1.7.

This change incorporated in the RTS as compared to the CTS which provides a frequency code table with the surveillance Table 4.1-1 increases the probability of operator error which could result in missed surveillances and unsafe plant operation.

This contention relates to an editorial change in the current technical specifications. In the current technical specifications, the definition for certain frequency codes used in Table 4.1-1 was contained at the end of that table. In the revised technical specifications, these codes are defined in Section 1, Table 1.1 — which provides more specific definitions than do the current technical specifications. That is, definitions have been transferred from footnote status to an earlier section of the Technical Specifications, where they are more fully defined.

¹¹ Although Petitioner spoke of Contention 31, he addressed the substance of Contention 33 and purposely skipped over Contentions 31 and 32. See Tr. 165.

Petitioner did not offer any facts and cited no expert sources on this subject and presented no reasoned statement of why this was unacceptable (*see* Tr. 33-41, 43 [discussion of Judge Bloch and Mr. Frantz]; Tr. 44 [Frantz for Applicant: operators are fully trained]; *compare* Tr. 44-45); hence, the admission of this contention is denied. There is no genuine issue of fact raised pursuant to 10 C.F.R. § 2.714 (b)(2)(ii) and (iii).¹²

C. Contention 5

Contention 5 states, without further specification, that “RTS, Table 4.3-1, section 3/4 at page 3-8 relaxes certain surveillance requirements [without specifying which requirements]. . . .” At the prehearing conference, Petitioner clarified that he is concerned that: (1) the power range neutron flux detectors may be excluded from channel calibration both for the high setpoint and the low setpoint (Tr. 46-49); (2) the test frequency for overtemperature Delta T is decreased from biweekly to every 31 days (Tr. 49); (3) the test frequency for overpower Delta T is decreased from biweekly to every 31 days (Tr. 49); and (4) there is no test for “under voltage 4.16 kilo volts” (Tr. 49). Petitioner also provides the following statement of reasons:

I'd also like to point out that over-temperature Delta T and over-power Delta T and under-voltage 4.16 KV have been analyzed in the current technical specifications safety analysis of the plant, so to change these frequency surveillances is definitely going to affect the health and safety of the public because it's going to provide a means and a method to release fission products to the environment.

Tr. 52.

These concerns are addressed in the No Significant Hazards Evaluation, Appendix A 3/4 at 3-1, which discusses the changes in test frequency in detail. In particular, it relies on a Westinghouse Owner's Group study, WCAP-10271 series. In light of this reference, we find that Petitioner has not show us how Applicant's analyses are in error or that they have made a significant omission. Consequently, the contention is not admitted.

¹² Our memorandum defines the failure to demonstrate a genuine issue of fact as a failure to provide any factual evidence or supporting documents that produce some doubt about the adequacy of a specified portion of Applicant's documents or that provides supporting reasons that tend to show that there is some specified omission from Applicant's documents. *See* 10 C.F.R. § 2.714(b)(2)(ii) and (iii).

D. Contention 6

Proposed Contention 6 states:

Specifically, the amendments would change the CTS at specification 1.17.¹³ In the RTS the definition of OPERABILITY requires "electrical power" for system operability, and the A-C power source requirements are defined by the A-C sources Technical Specification.

Where one of the A-C sources is inoperable and a component in the opposite train of a redundant system is inoperable, the CTS require that both of the redundant trains be declared inoperable. The RTS permit the ACTION restrictions of the A-C source to govern.

The CTS would typically require MODE reduction within 7 hours pursuant to T.S. 3.0.1. The RTS requires MODE reduction within 14 hours when one Diesel Generator and an opposite train component are inoperable.

This relaxation of the safety margins discussed above is unacceptable because it provides for an increase in the time permitted for MODE reduction from 7 hours to 14 hours. Additionally, this relaxation of the safety margins would provide for one train of a two train safety system being inoperable at the same time that one of the two A-C sources powering the opposite train components is inoperable.

Contention 6 deals with a "relaxation" in technical specifications pursuant to an NRC letter dated April 10, 1980, to all power reactor licensees from the Division of Operating Reactors. The purpose of the letter was to clarify "the use of the term OPERABLE as it applies to the single-failure criterion for safety systems." The letter states that:

By and large, the single failure criterion is preserved by specifying Limiting Conditions for Operation (LCOs) that require all redundant components of safety related systems to be OPERABLE. When the required redundancy is not maintained, either due to equipment failure or maintenance outage, action is required, within a specified time, to change the operating mode of the plant and to place it in a safe condition. The specified time to take action, usually called the equipment out-of-service time, is a temporary relaxation of the single failure criterion, which, consistent with overall system reliability considerations, provides a limited time to fix equipment or otherwise make it OPERABLE. If equipment can be returned to OPERABLE status within the specified time, plant shutdown is not required.

Letter at 1.

The gist of the letter is that there must be full redundancy of systems. However, one system may lose a source of power (either on site or off site but not both)¹⁴ providing "all of its redundant systems, subsystems, trains, components and devices are OPERABLE, or likewise satisfy the requirements of this specification." Enclosure 1 at 3.0.5.

¹³ This appears to be a citation to the RTS.

¹⁴ At the preliminary hearing, Judge Bloch asked a question that showed that he did not properly understand the nature of this change in technical specifications. He believed that this specification permitted one of two alternative sources of offsite power to be unavailable but that this change had nothing to do with emergency onsite power. This apparently incorrect view was, however, corroborated by counsel for Applicant. Tr. 56-63.

The Revised Technical Specification has adopted this Staff suggestion. It obviously does represent a "relaxation," as Applicant admits: previously two sources of power had to be available for a safety-related system or the system had to be declared inoperable and *now* conditions are specified where a system with only one power source can be operated temporarily. However, Petitioner does not provide any technical opinion or reasons to believe that the change is unsafe; in particular, it is not shown to be in violation of the single-failure criterion.¹⁵ Tr. 55-63, 65. Hence, Petitioner has not given us a reason to determine that there is a genuine issue of fact with respect to this contention and it shall not be admitted.

We note that this change in Technical Specifications also increases the time allowed for mode reduction (while operating in Modes 1 through 4) from 7 to 14 hours. No Significant Hazards Evaluation, Appendix A at 1-5. Compare Revised Technical Specifications at 3/4 0-1, § 3.0.3, which appears to differ from the No Significant Hazards Evaluation. This time allowance exceeds the Model Technical Specifications attached to the April 10, 1980, Staff letter on which Applicant relies for its technical specification change. Section 3.0.3 of the Model Technical Specifications requires that the unit be placed in at least HOT STANDBY within 1 hour and at least HOT SHUTDOWN in the next 6 hours.

Had the Petitioner cited this source, we would have required Applicant to respond. None of Applicant's analyses clearly states the risk — in the form of possible accident sequences — that is being avoided by mode reduction. Hence, it is impossible for us to evaluate the appropriate duration of time before mode reduction is required.

It is obvious that permitting operation during an equipment out-of-service time is a potentially dangerous practice. Because the time of out-of-service operation is limited, there is little total risk during this time and therefore little chance that empirical evidence will become available with which to evaluate the

¹⁵ The explanation of the basis for the Staff letter is not wholly satisfying to the Board. There is no discussion, for example, of what new risks occur for reactors because of this change nor of what analyses have been done to provide assurance that it is appropriate to permit such new risks to occur during the limited out-of-service time. Nor is this matter cleared up by Applicant's No Significant Hazard Evaluation at 1.17. It is not clear why Applicant has concluded that these risks are acceptable. If they have not already done so, we urge Applicant and Staff to pay detailed attention to possible risks. See Tr. 116 (Staff counsel agrees with the Board that Applicant should have thought through what sequences they are inviting through the relaxation of requirements).

However, we still conclude that Petitioner failed to state an admissible contention. Though the request for an amendment does not appear to be as well analyzed as we would like, Petitioner failed to address the Staff's technical letter at all and failed to state a reasoned, documented basis for believing that this change was unsafe. Thus it did not meet the genuine issue requirement of 10 C.F.R. § 2.714(b)(2)(ii) and (iii).

We note that 10 C.F.R. § 50.63 states that operators must demonstrate that their alternative AC power sources "will constitute acceptable capability to withstand station blackout," presumably under adverse operating conditions such as might occur during the limited out-of-service time. However, Applicant is not yet required to comply with this regulation, which goes into effect according to a schedule filed by Applicant. 10 C.F.R. § 50.63(c)(4); Tr. 206.

extent of the risk occurring during implementation of this practice. So it seems to the Board that it is particularly important that risks during out-of-service time be carefully delimited by analysis. As no such analysis appears to have been done,¹⁶ we ask the Applicant and the Staff to carefully scrutinize these provisions and, in particular, to anticipate possible accident sequences that are being risked and to take appropriate steps — including reducing the risk exposure — if the analysis indicates some new grounds for caution. See Tr. 108-17.

In this instance, however, Petitioner's assertions that there is increased risk from this technical specification change is based entirely on Applicant's admission that there is a relaxation of requirements here; and we do not think that the admission, without more, is enough to provide a basis for this contention in light of the Staff letter supporting the Applicant's position. Petitioner brought no expert opinion to bear to show what risks are being taken and only the Board — and not Petitioner — has advanced reasons to be concerned about Applicant's new procedure.¹⁷ See Tr. 65. Consequently, we find that Petitioner did not show the existence of a genuine issue of fact and this contention is not to be admitted.

E. Contention 7

Proposed Contention 7 states:

Specifically, the amendments would change the CTS at specification 2.1.1. The CTS require, at the related section 1.1, that if any safety limit is exceeded, the associated reactor shall be shut down until the AEC authorizes resumption of operation. The CTS at section 2.1 provides for fuel cladding integrity as indicated at B2.1 with a design pressure of 2485 psig for safety valve set points. Additionally the CTS include requirements for TWO and ONE loop operation, and natural circulation.

The RTS are less restrictive because they do not include requirements for TWO and ONE loop operation, and natural circulation. The RTS relax existing safety margins in the CTS by permitting a (one hour) time requirement for mode reduction in the ACTION statement. In the RTS at Figure 2.1-1, the reactor core safety limits appear to be outside of the safety margins described in the CTS.

¹⁶ The Applicant's No Significant Hazards Evaluation does *not* analyze this situation. Instead, it uses the following phrases to supplant analysis: generally high reliability, marginal reduction in overall system reliability, slight increase in time, generally high reliability, and extremely remote. No consideration has been given to specific accident scenarios and no probabilities have been estimated. The full "analysis," in Appendix A at 1-5, is:

The potential relaxation discussed above is acceptable because of the generally high reliability of the A-C sources, the marginal reduction in overall system reliability due to the temporary unavailability of one of the two A-C sources and the slight increase in time allowed for the mode reduction (7 to 14 hours). Also, due to the generally high reliability of the safety systems in the plant, the likelihood of one train of a two train safety system being inoperable at the same time that one of the two A-C sources powering the opposite train components is inoperable, is extremely remote.

¹⁷ Although we might declare a *sua sponte* issue on the ground that this issue is important to safety, we trust the Staff to respond sympathetically to our suggestion and we do not, therefore, think it necessary to make this a matter set for hearing.

In this contention, Petitioner challenges a portion of Applicant's proposed technical specifications that appears to be more restrictive than the prior version. In the proposed specifications, Applicant has deleted the requirements for one- and two-loop power operation. They have done this because power operation with less than three loops has not been analyzed in the safety analysis and, therefore, should not be permitted in the technical specifications. Proposed Technical Specification 2.1.1, Appendix A at 2-1. Since Petitioner does not show how this apparent tightening of the technical specifications is less restrictive, we find no genuine issue with respect to that part of the contention. See Tr. 68-72.

There is another potential issue here concerning whether or not there has been a change in the time required for mode reduction. Applicant claims that "[a]n ACTION statement is added for consistency with the Standard Technical Specification." The Action statement permits 1 hour for mode reduction for exceeding a combined limit for thermal power, pressurizer pressure and the highest operating loop coolant temperature. Proposed Technical Specification 2.1.1 at A 2-1.

We note that Applicant does not discuss what action was appropriate under the current technical specifications, *prior* to the addition of this action statement — so we do not know precisely what change in practice has occurred. However, the revised procedures have a separate section dealing with the reactor trip system, which produces faster shutdowns than the 1 hour required by § 2.1.1. Furthermore, they contain a clear statement that the plant must be in hot shutdown within an hour (§ 2.1.1), that the NRC must be notified "as soon as practical" (§ 6.7.1.a) and that critical operation shall not be resumed without permission of the NRC (§ 6.7.1.d). This appears to comport fully with 10 C.F.R. § 50.72 and, since Petitioner has given us no reason to determine that there is any uncovered situation for which faster shutdown than 1 hour is required, we find that there is no genuine issue of fact and do not admit this portion of the contention. See also Tr. 73 (representation of counsel concerning current practice).

Still another potential issue with respect to Contention 7 relates to Petitioner's argument, at Tr. 84-85, that:

[T]he reactor core safety limits appear to be outside the safety margins described in the current technical specification. And in that revised technical specification Figure 2.1-1, the RTS at 110 [percent] power [has a] Delta T [(T-average = 1/2 (T-hot + T-cold))] . . . at . . . 2,385 psig, [of] . . . approximately 620 degrees fahrenheit. And that has to refer to their figure 2.1-1. That is compared to the current tech specs at 110 percent . . . at 2,385 psig . . . [of] approximately 627 degrees F.

However, both the Applicant and Staff stated that there was no change in this particular figure from the current technical specifications. Having checked both the current and revised specifications we also are not aware of any change.

Therefore, it appears — as Mr. Saporito stated at the prehearing conference at Tr. 87 — that Mr. Saporito was misled by the documentation he used into believing that a problem existed when in fact no problem did exist. Hence, this portion of the contention shall not be admitted.

F. Contention 8

Contention 8 states¹⁸:

Specifically, the amendments would change the CTS [current technical specifications] at specification 2.1.2. The CTS require immediate plant shut down and compliance with Administrative Controls in section 6.3[;] . . . page 6.3-1 contains the reporting requirements. The RTS [revised technical specifications], in an ACTION statement, require plant shutdown within 1 hour and compliance with Administrative Controls in Section 6.7.1 if the safety limit is not met in MODE 1 or 2. Therefore, the RTS represent a relaxation of safety margins existing in the CTS.

The lack of admissibility of this contention is governed by the portion of our discussion of Contention 7 in which we discussed § 2.1.1 in the revised technical specifications (with respect to THERMAL POWER, pressurizer pressure, and the highest operating loop coolant temperature) that requires plant shutdown within 1 hour and compliance with the Administrative Controls in section 6.7.1. We find that the same procedure, when applied by § 2.1.2 to Reactor Coolant System pressure, fully complies with 10 C.F.R. § 50.73 and that Petitioner has not demonstrated that there is any significant safety concern. Hence, this contention is not admitted.

G. Contention 9

Proposed Contention 9 states that “[t]he RTS relaxes the CTS by providing for channel drift in the reactor trip set point table 2.2-1 at page 2-4 in the RTS.” However, the table in the RTS does not contain any values for channel drift and therefore does not make any substantive change in prior operation. In addition, we have been assured by Applicant that it would require a new amendment to insert a value into the blank column on this table. Tr. 92.¹⁹ Hence, we conclude

¹⁸ At the prehearing conference, we invited Petitioner to specify errors or omissions in Applicant’s supporting analyses. In our memorandum, we have addressed only those issues for which Petitioner has attempted to show errors or omissions and have treated other portions as withdrawn. For example, in Contention 8, Petitioner had argued that “the amendments would change . . . specification 2.1.2 and . . . [the “reporting requirements” at] § 6.3 [have been relaxed].” Contention 8. However, as Applicant stated, there is no § 2.1.2 in the current technical specifications and § 6.3 is irrelevant. Letter of April 4, 1990. These problems appear to have resulted from Petitioner’s use of outdated documents.

¹⁹ We interpret the conversation in the transcript to constitute an assurance to us. If it is not, Applicant should notify us promptly of our error.

that there is no change in the referenced portion of the technical specifications and no genuine issue of fact. The contention shall not be admitted.

H. Contention 11

The proposed contention states:

The RTS relaxes the CTS because MODE Applicability is explicitly defined for each Surveillance Requirement and forced MODE reductions required by Action statements will, for the most part, stop with the first Mode beyond the LCO requirement.

In oral argument at the prehearing conference, Petitioner stated:

The Applicant in their safety evaluation admits in some cases that there will be a relaxation compared to the current requirements. They even cite an example that the revised tech specs for the emergency core coolant system, the ECCS, the mode applicability for modes 1, 2, and 3 and the action statement mode stops at mode 4, while the current tech specs requires mode reduction to mode 5. So the current tech specs require them to implement a mode reduction to Mode 5, and then the revised tech specs are not as restrictive. They only require mode change to Mode 4.

Tr. 103. Petitioner then has criticized Applicant for failing to document or to present supporting references for its statement that "in Mode 4 the probability and consequences from a design basis rupture is reduced." Tr. 104.

Applicant's answer to this question of lack of analysis is that the change is consistent with the standard technical specifications for Westinghouse plants.²⁰ Tr. 105. Applicant concedes that there is some risk from being in Mode 4 rather than in Mode 5. Statement of Counsel, Tr. 106. Applicant also concedes that it did not provide a systematic review of possible accident sequences that might occur in Mode 4. *Id.*, Tr. 108. Nor has the Board or the public been provided with supporting analyses from the Staff's acceptance of the standard technical specifications. Staff Counsel, Tr. 113.

Under the circumstances, we conclude that Petitioner has created a genuine issue of fact concerning Applicant's omission from its analysis of consideration of the risks related to the change in mode reduction requirements. Hence, this contention shall be admitted with respect to this genuine issue of fact.

²⁰ Although we are not aware of any analyses accompanying the standardized technical specifications — and therefore have a void on our record — we suspect that there may be very little difference in risk occurring because of a 150° difference in temperature between hot and cold shutdown, occurring in a system designed for extremely high pressures and temperatures.

I. Contention 12

In oral argument, Petitioner narrowed Contention 12 to deal exclusively with its concern that the frequency of surveillance for the RCS boron concentration in operating Modes 1 and 2 is reduced from twice per week to once in 31 effective full-power days.

The No Significant Hazards Evaluation — which also constitutes Applicant's Safety Evaluation²¹ — in Appendix A 3/4 at 1-3, justifies this change because:

the RCS boron concentration is not directly related to SHUTDOWN MARGIN in MODES 1 and 2. The SHUTDOWN MARGIN in Modes 1 and 2 is ensured by surveillance of the control rod bank position and verifying that the rod bank withdrawal is within the allowable withdrawal limit.

The principal argument Petitioner presented was the unsupported assertion that the probability for change in boron concentration is greater in Modes 1 and 2. Tr. 121-22. By inference, Petitioner therefore argues that more frequent surveillance is required to maintain constant boron concentration. However, Petitioner does not respond to the principal argument: that the boron is not needed for shutdown margin in these modes.²² Hence, this contention shall not be admitted.

J. Contention 14

Proposed Contention 14 states:

Specifically, the amendments would change the CTS at specification 3/4.1.2.2. (1) The RTS relaxes the safety margins existing in the CTS whereas in the RTS a boric acid pump is only required to be operable when its associated flow path is required to be operable.

(2) The allowed outage time for a boric acid pump is relaxed from 24 hours to 72 hours.

(3) The RTS do not require cold shutdown of the plant for a period of 102 hours after loss of the boric acid pump or the boric acid flow path.

(4) The RTS include an explicit Action time for restoring operability of the boric acid flow path which ultimately can result in a lapse of 174 hours before the plant is required to be placed in cold shutdown.

(5) The RTS provide for an explicit Action restriction which addresses an event where both the boric acid source and the normal flow path through the regenerative heat exchanger is inoperable.

²¹ Tr. 179.

²² See 10 C.F.R. § 50.62, which is consistent with the position of Staff and Applicant because it requires an independent auxiliary (or emergency) feedwater system for PWRs (subsection (c)(1)) rather than a standby liquid control system, which is required for BWRs (subsection (c)(4)).

Petitioner objects to relaxing requirements so that the boric acid pump is only required to be operable when its associated flow path is required to be operable. Applicant points out in its No Significant Hazards Evaluation, Appendix A 3/4 at 1-16, that the boric acid pump is not assumed to be operable in the safety analysis. Petitioner asserts, without authority, that if safety injection fails, "the only thing you have left is insertion of boron to decrease the reactor's reactivity to bring it to safe shutdown margin." Tr. 131.

Since Petitioner does not offer qualified facts, pursuant to the regulations, or cite a relevant source on this point, we accept Applicant's representation. There is no genuine issue of fact and this portion of the contention shall not be admitted.

Petitioner also alleged that it was improper to permit hot standby for 102 hours after loss of operability of a charging pump. Petitioner is addressing a mode change where Applicant will go to hot standby with boration for 102 hours instead of cold shutdown. The full statement concerning this "relaxation" in current requirements is set forth in the No Significant Hazards Evaluation, Appendix A 3/4 at 1-14, § A.2.c.3, and states:

The requirement for restoring operability if the boric acid pump or the boric acid flow path is not returned to service within the initial time period is changed from placing the plant in cold shutdown within an additional 48 hours to placing the plant in hot standby and borating to 1% delta-k/k at 200°F within the next 6 hours and restoring the plant to operable status within the next 72 hours or be in cold shutdown within the next 30 hours.

The logic of this section seems impeccable. The primary function of the boric acid pump and flow path in hot standby is to provide enough boration to attain the boron needed for cold shutdown margin (i.e., borating to 1% delta-k/k). Hence, if you borate to that standard, it seems acceptable to stay in hot shutdown for some period of time.

This would have ended our inquiry but for language in the No Significant Hazards Evaluation, Appendix A 3/4 at 1-17 that we do not fully understand. The language that we do not understand states:

After borating to cold shutdown SDM, the only boration system function is make-up for loss in volume due to shrink. In the event that this capability is lost in this time interval, *the plant's ability to reduce modes as required is lost*, but the safety aspect of maintaining the SDM is preserved. So, extending the time period to restore operability to the pumps or flow path does not result in an increase in the probability of or impact on the consequences of an accident previously evaluated. [Emphasis added.]

Our concern is that it seems to be possible, during the additional time in hot standby, to lose the ability to reduce modes; the possible safety implications of this loss of ability require explanation. Accordingly, we find the Applicant's explanation inadequate and admit this contention for this one purpose.

K. Contention 16

Proposed Contention 16 states:

Specifically, the amendments would change the CTS at specification 3/4.1.2.4. (1) The RTS would relax existing safety margins in the CTS whereas the RTS change the BAT boron concentration surveillance from twice weekly to weekly.

(2) The RTS would relax existing safety margins in the CTS whereas the RTS delete the BAT level instrument weekly Channel Check.

Petitioner objects to a relaxation in BAT boron concentration surveillance from twice weekly to weekly, the deletion of a minimum volume requirement on the primary water storage tank, and the provision of some specified delays in mode changes required because of the inoperability of the Boric Acid Storage System. Applicant explains the basis for these provisions in the Proposed Technical Specifications, Appendix B 3/4 at 1-2 to -4; it also handles this subject in its No Significant Hazards Evaluation, Appendix A 3/4 at 1-27.

As Staff points out:

In the application Applicant states the boron concentration does not vary very much over a week, thus making weekly surveillance of the concentration adequate, and that there are additional surveillance requirements which compensate for the deleted channel check. App. A at 3/4 1-23 to 24. Petitioner has not addressed Applicant's discussion of these changes at all.²³

We agree with the Staff. Petitioner has failed to show that Applicant is in error or has omitted something from its analysis. See Tr. 146-50 (note that Applicant repeats its assurance that a weekly boric acid tank volume surveillance is planned). Hence, there is no genuine issue of fact and this contention is not being admitted.

Petitioner states that:

their position in the safety evaluation is that once a week is adequate [surveillance] because the boron concentrations don't significantly change in Modes 5 and 6. Our position is the safety analysis is incomplete because they should have considered boron concentration in all modes of operation because that's the way it's established in the current technical specifications.

Tr. 146. Petitioner is correct that the safety analysis presented in the No Significant Hazards Evaluation, Appendix A 3/4 at 1-23 omits any discussion of the deletion of surveillance requirements for Modes 1 through 4. Since the boron concentration surveillance is reduced for all modes (see 3/4.1.2.4, § A.2.c.1,

²³ Staff Response at 40.

Appendix A 3/4 at 1-22), Petitioner seemed to have addressed an omission in the analysis. However, the Staff addressed this at Tr. 150 by stating "the technical specification at issue here appears to be related to shutdown, which would be the modes that were discussed in the safety analysis — in the accompanying no significant hazards analysis." In this assertion, which was not controverted by Petitioner, Staff appears to be correct. Hence, there is no genuine issue of fact here and this portion of the contention is not being admitted.

Petitioner continues to say:

You know, they say that that channel check surveillance they want to delete, and they say it's not needed because they do a weekly surveil . . . — they do a weekly check on it and even the instrument that's local at the tank — if it indicated zero in there, that there's always 900 gallons remaining in there.

Tr. 147. This we find to be an incorrect reading of Applicant's position. Applicant does not assume that 900 gallons always remains in the BAT regardless of the reading of the indicator. What it says is that the indicator never shows less than 900 gallons and that they therefore rely on a weekly surveillance of the BAT liquid volume itself to determine whether the instrument readings are accurate. No Significant Hazards Evaluation, Appendix A 3/4 at 1-24. (Applicant also states that "the BAT is not required to be OPERABLE for accident mitigation by the reactor trip or ESF actuation system." Petitioner does not address this ground for asserted safety.)

We conclude, therefore, that this portion of the contention — dealing with the BAT level instrument weekly Channel Check does not contain a genuine issue of fact and is not being admitted.

L. Contention 18

Proposed Contention 18 states:

Specifically, the amendments would change the CTS at specification 3/4.1.2.6. (1) The RTS would relax existing safety margins in the CTS whereas the RTS increase the allowable outage time for one channel of heat tracing from 24 hours to 30 days.

Applicant would increase the allowable outage time for one channel of heat tracing from 24 hours to 30 days. No Significant Hazards Evaluation, Appendix A 3/4 at 1-30. However, the increased outage time is allowed only because there is an 8-hour temperature surveillance to ensure that a proper temperature is being maintained in the portion of the system that is traced. *Id.* at 1-31.

Petitioner's principal challenge is to question how a temperature surveillance can be appropriately performed in order to ensure that proper temperature is maintained. Tr. 151; No Significant Hazards Evaluation, Appendix A 3/4 at

1-31, § B.3.a. Although this argument is not directly answered on the transcript (Tr. 152-54), Petitioner is not an expert in methods of performing surveillance of piping systems and we are unpersuaded by his unsupported assertion that there is some difficulty here.²⁴ In addition, we note that Applicant has stated without contradiction by Petitioner that the boric acid is not required to be operable for accident mitigation (Tr. 153), and Petitioner has not stated any other purpose for which it needs to be available. Hence, there is no genuine issue of fact and this contention is not being admitted.

M. Contention 21

Contention 21 states:

Specifically, the amendments would change the CTS at specification 3/4.1.3.4. (1) the RTS measures rod drop time from the "beginning of decay of stationary gripper coil voltage to dashpot entry".

This contention deals with rod drop time. Petitioner alleges that Applicant admits that the measurement is a relaxation of requirements. Tr. 154. However, Applicant makes no such admission. Indeed, it is clear that the new measurement is more conservative. The prior measurement of rod drop time is from the beginning of rod motion to dash pot entry. The new measurement commences *before* there is any rod motion. It begins "from the beginning of decay of stationary gripper coil voltage" and ends at the same time as previously: with dash pot entry. Since the new measurement begins *earlier* — and ends at the same time — and since the limit on the allowed rod drop time remains the same, it is clear to the Board that the new requirement is actually more conservative and that there is no genuine issue of fact here. No Significant Hazards Evaluation, Appendix A 3/4 at 1-42; Tr. 157-58. The contention is not being admitted.

N. Contention 30

Proposed Contention 30 states:

Specifically, the amendments would change the CTS at specification 3/4.4.1.1. The RTS relaxes the allowed outage time for a Reactor Coolant Loop in Mode 1 from one hour to six hours.

Petitioner objects to a relaxation of the outage time for a Reactor Coolant Loop in Mode 1, from 1 hour to 6 hours, because operation with two loops

²⁴ We expect that the Staff has ascertained, during its review of the RTS, that temperature surveillance measures are adequate.

has not been analyzed. No Significant Hazards Evaluation, §2.1.1 2.b.2. We conclude that this contention shall be admitted.

Applicant's explanation is far from complete:

Relaxing the time limit to be in [get into]²⁵ HOT STANDBY from one to six hours will allow the plant additional time to restore the loop or perform a normal shutdown. Increasing this ACTION statement time limit will have a *minimal impact* on a previously evaluated accident because the ACTION statement only applies in the *unlikely* event of a single RCS loop being lost during MODE 1 or 2. With power above the P-8 setpoint, a second plant accident transient during the time interval of the ACTION statement is *unlikely*. The Reactor Trip System continues to monitor plant conditions during the ACTION time interval and trip functions such as overtemperature delta-T, or loss of flow are available to provide protection during the ACTION time interval. Finally, adopting the proposed ACTION time has the potential benefit of reducing the number of reactor trip transients imposed on the plant.²⁶ [All emphasis added except all-caps.]

Petitioner challenges Applicant's justification for this change (Tr. 160):

Increasing this ACTION statement time limit will have a minimal impact on a previously evaluated accident *because the ACTION statement only applies in the unlikely event of a single RCS loop being lost during MODE 1 or 2.*

No Significant Hazards Evaluation, Appendix A 3/4 at 4-2 (emphasis added). The Board agrees with Petitioner that this particular justification is lacking. An ACTION statement should not be justified simply because it would be used only rarely. The question is whether it is safe when it is used.

Petitioner also challenges this new outage provision because Applicant has deleted the technical specifications governing operations with two loops, stating that the safety analysis for the plant has not analyzed the safety of operating with just two loops. Tr. 160-61; Proposed Technical Specification 2.1.1, Appendix A at 2-1 ("power operation (MODES 1 and 2) with less than three loops is not analyzed in the safety analysis"). In an attempt to explain this problem, Applicant erroneously stated that this technical specification permits "hot standby" and not operation and that there is no need for a guideline governing *operation* with two loops when all that will be attempted is hot standby with two loops. Tr. 162. However, Proposed Technical Specifications 3/4.4.1.1 A.2.c, Appendix A 3/4 at 4-1, states that "[t]he allowed outage time for a REACTOR COOLANT LOOP in MODE 1 is relaxed from one hour to six hours" (emphasis added).

²⁵ Proposed Technical Specifications 3/4.4.1.1 A.2.c, Appendix A 3/4 at 4-1, states that "[t]he allowed outage time for a REACTOR COOLANT LOOP in MODE 1 [!] is relaxed from one hour to six hours."

²⁶ No Significant Hazards Evaluation, Appendix A 3/4 at 4-2.

Since the loss of a coolant loop reduces heat removal capacity, it is important that operation in this mode even for 6 hours be analyzed. However, that apparently has not been done. Nor are we pleased with the Applicant's use of the adjectives "minimal impact," "unlikely event," and "unlikely," in place of analysis. While it may be true that this change increases plant safety through reducing the number of reactor trip transients, that depends on whether this particular change is safe and can be justified.

O. Contention 33²⁷

Proposed Contention 33 states:

Specifically, the amendments would change the CTS at specification 3/4.4.2.1. (1) The RTS provides for an Action statement modified so that an operable code safety valve is not required if the RCS is vented through an equivalent size vent pathway.

(2) The RTS relaxes the current requirement to test all safety valves each refueling to only testing a fraction of the safety valves.

(3) The RTS delete the requirement of Mode and operability of safety valves.

Petitioner objects that Applicant is moving from technical specifications that require more frequent surveillance of safety valves to the frequency specified in the American Society of Mechanical Engineers (ASME) Code, which has been accepted in 10 C.F.R. § 50.55a(g)(4) as an adequate assurance of safety. Hence, Petitioner (which did not review the ASME code provisions — *see* Tr. 167) appears to be challenging a Commission regulation, which it may not do. There is, therefore, no genuine issue of fact and the contention shall not be admitted.

P. Contention 35

Proposed Contention 35 states:

Specifically, the amendments would change the CTS at specification 3/4.4.4. (1) The RTS deletes the PORV's from the specification. (2) The RTS relaxes the block valve mode reduction from Mode 5 to Mode 4.

Petitioner's objection to this change in technical specifications does not challenge Applicant's conclusion that "no credit is taken in the safety analysis for PORV operation in MODES 1, 2, or 3." Tr. 170. However, as Applicant has asserted without contradiction (Tr. 171-73), the challenged section of the technical specifications deals only with Modes 1, 2, or 3. No Significant Hazards Evaluation, Appendix A 3/4 at 4-22 to -23. Proposed Technical Specifications

²⁷ At Tr. 163, Petitioner states that it is addressing Contention 31, but he misspoke. *See* Tr. 165.

3.4.9.3 at 3/4 4-36 and 3.4.2.1 at 3/4 4-7 require that in Modes 4 and 5 there must be adequate pressurizer relief capacity. See Tr. 172-73. Hence, Petitioner's objection is not well taken. There is no genuine issue of fact and this contention is not being admitted.

Q. Contention 51

Proposed Contention 51 states:

Specifically, the amendments would change the CTS at specification 3/4.8.1.1. (1) The RTS relax existing safety margins by requiring that if both start-up transformers are inoperable, both the diesel generators be demonstrated operable within eight hours unless the diesel generators are already operating, and if one of the start-up transformers is not restored to operable status within 24 hours then both units be shut down.

(2) The RTS relax existing safety margins by requiring that if both diesel generators are inoperable, both start-up transformers be demonstrated operable within one hour and if one of the diesel generators is not restored to operable status within two hours then both units be sequentially shut down.

(3) The RTS relax existing safety margins by deleting the peak voltage requirement immediately following a complete diesel generator load rejection test.

(4) The RTS relax existing safety margins by only requiring a check of diesel fuel inventory when the diesel is demonstrated operable.

(5) The RTS relax existing safety margins by specifying that the diesel generator(s) be started only and not synchronized and loaded.

(6) The RTS relax existing safety margins by allowing for performance of a fast start only at least once per 184 days and all other starts to be preceded by warmup procedures.

(7) The RTS relax existing safety margins by reducing the diesel generator surveillance test frequency to at least [sic] once per 31 days.

Petitioner's principal concern in this contention is that Applicant has allegedly failed to analyze the effects of a loss of offsite power. Tr. 182-203. However, despite the Board's explicit invitation (Tr. 191), Petitioner never specified what *change* in a technical specification raised the question Mr. Saporito was addressing. Indeed, we are persuaded by Applicant's argument that the Proposed Technical Specifications 3/4.8-2 (§ b.12) are *more conservative* because they have added a new ACTION statement that requires the demonstration of operability of the cranking diesels when a startup transformer is inoperable. Tr. 204-05. We also agree with the Staff that Petitioner's arguments address compliance with a station blackout rule that does not yet cover Applicant, that they are not relevant to the subparts of this contention, and that they do not show how a particular proposed change would in fact reduce a safety margin. Tr. 206. Hence, this contention is not being admitted.

R. Contention 25²⁸

This lengthy contention relates to the effect of reactor vessel heatup and cooldown and surveillance on the strength of the pressure vessel. In this contention, Petitioner first sought to argue that there was a change in a graph in the technical specifications that sets forth pressure/temperature curves, presumably for the reactor pressure vessel. However, after a conference, Petitioner agreed with Applicant that there was in fact no change made in these curves as a result of the pending amendments. Tr. 210-11.

Thereafter, the Board made repeated attempts to have the Petitioner specify what particular changes in the technical specifications were being objected to; but the Petitioner failed to specify any particular change. Tr. 211-18. In addition, as we read Contention 25, we fail to ascertain any specified change. Furthermore, Applicant stated at the prehearing conference that "[t]here are no changes of substance between the current techs and the proposed tech specs." Tr. 219. Staff also stated that "there are no changes." Tr. 221. Since the only "relaxation" in § 3/4.4.9.1 is deletion of Figure 3.1-2 and since Petitioner has not addressed the significance of that deletion (No Significant Hazards Evaluation, Appendix A 3/4 at 4-41), we conclude that Applicant's and the Staff's mutual assertion of no significant change is indeed correct.²⁹

Consequently, there is no genuine issue of fact with respect to this contention and it is not being admitted.

S. Contentions 1 and 2

Contentions 1 and 2 are both environmental contentions. Contention 1 alleges that an Environmental Impact Statement (EIS) must be prepared; and Contention 2 that an Environmental Assessment must be prepared.

1. *Legal Background*

We agree with the Staff concerning the appropriate legal context in which to review these contentions. The applicable regulation is 10 C.F.R. § 51.20, which requires that an environmental impact statement be prepared if the proposed action (the proposed technical specification amendments) is a major federal action significantly affecting the quality of the environment. We endorse the following portion of the Staff's brief:

²⁸ This contention is out of order in Petitioner's filing. It can be found at p. 104.

²⁹ Petitioner also argued that there was some impropriety or illegality in Applicant separating out one change in its technical specifications and filing it prior to its filing of its current revision. Tr. 223-24. We do not agree with this argument. Applicant is free to file amendments to its license in any order that it desires to file those changes. We know of no limitation on that discretion.

The scope of a National Environmental Policy Act (NEPA) environmental review of a license amendment is more limited than one performed prior to initial licensing. *Florida Power and Light Co.* (Turkey Point Nuclear Generating Station, Units 3 and 4), LBP-81-14, 13 NRC 677, 684-85 (1981); *Consumers Power Co.* (Big Rock Nuclear Plant), ALAB-636, 13 NRC 312, 319 (1981). A NEPA review for a license amendment requires an evaluation of only those environmental impacts beyond those evaluated previously which will result from the proposed action. *Id.* . . .

* * *

A petitioner raising a NEPA claim is required to show a dispute exists between it and the applicant or the Staff on a material issue of fact or law. 10 C.F.R. § 2.714(b)(2)(iii); 54 *Fed. Reg.* at 33172. . . .³⁰

* * *

Under the Commission's regulations, an environmental impact statement is not automatically required for the proposed action. See 10 CFR § 51.20. The Staff determines whether an environmental assessment is required or whether the action is a categorical exclusion³¹ [footnote in original] for which no environmental document is required. See 10 CFR §§ 51.21, 51.22(b), 51.22(c)(9) and (10), 51.14(a).³² [Footnote added.]

2. Analysis of Contentions 1 and 2

Petitioner asks in these two contentions that an environmental impact statement and an environmental assessment be prepared. Petitioner's Amended Petition at 24, 26. The cited ground in both instances is that the amendment of the technical specifications is "a major Federal action."³³ *Id.*

Within the body of these contentions, there are no facts set forth that establish that this is a major federal action. In particular, there is no basis for believing that the amendment of the technical specifications has some overall effect other than the effect of each of the parts. However, all the other contentions allege that there is an increased hazard resulting from the proposed amendment. We think that Petitioner intends that by proving these allegations it will establish

³⁰ Staff Response at 21-23.

³¹ "'Categorical exclusion' means a category of actions which do not individually or cumulatively have a significant effect on the human environment and which the Commission has found to have no such effect in accordance with procedures set out in § 51.22, and for which, therefore, neither an environmental assessment nor an environmental impact statement is required." 10 C.F.R. § 51.14(a), Definitions.

³² Section 51.25 provides:

Before taking a proposed action subject to the provisions of this subpart, the appropriate NRC Staff director will determine on the basis of the criteria and classifications of types of actions in §§ 51.20, 51.21 and 51.22 of this subpart whether the proposed action is of the type listed in § 51.22(c) as a categorical exclusion or whether an environmental impact statement or an environmental assessment should be prepared. . . .

³³ We have reviewed the regulations governing categorical exclusions from the need to prepare an environmental assessment and find that — for the most part — the allegation of "major Federal action" is sufficient to overcome exclusions. For example, changes in inspection or surveillance requirements are exempt if there are no significant hazards considerations and no changes in offsite effluents or occupational hazards (10 C.F.R. § 51.22(c)(9)); and we interpret the allegation of major federal action to imply a significant hazard. However, pursuant to 10 C.F.R. § 51.22(c)(10), changes in administrative procedures are exempt.

We also note that Applicant has not prepared an environmental report in support of its amendment.

that the change in technical specifications is a major federal action. Therefore, it is appropriate to consider Contentions 1 and 2 in this context. If Petitioner were to establish in one of its other contentions that there is a serious effect on safety, then it might sustain these first two contentions based on the others.

Our conclusion is that Contentions 1 and 2 should, therefore, be admitted. However, their consideration — including discovery based solely on the environmental balance — shall be deferred. Only if the litigation of the other contentions establishes that there is enough of an impact on safety³⁴ for this amendment to be a major federal action, will it be necessary to litigate these two environmental contentions separately. Otherwise, these deferred contentions may be dismissed based on consideration of the other admitted contentions.

Order

For all the foregoing reasons and upon consideration of the entire record in this matter, it is, this 15th day of June 1990, ORDERED, that:

Contingent Admission of Party

1. The Nuclear Energy Accountability Project (NEAP) is admitted as a party to this proceeding, based solely on its representation of its member, Mr. Thomas Saporito.

2. NEAP's continued participation in this proceeding is dependent on Mr. Saporito serving on this Board, on or before the 19th day of June 1990, a pleading in which he personally states his willingness to be represented by NEAP.

3. Should Mr. Saporito fail to respond as ordered in ¶ 2, this case shall be dismissed.

Contentions

4. The contentions that are admitted in the following paragraph are admitted only with respect to the genuine issues of fact discussed in the accompanying memorandum.

5. Only the following five contentions or portions of contentions are admitted: 1, 2, 11 (risk related to change in mode reduction requirements); 14 (possible loss of ability to change mode); and 30 (operation without one reactor coolant loop).

³⁴ It is unlikely, but conceivable, that the Board would determine that an amendment is permissible under the regulations but creates so much additional risk that it is a major federal action.

6. Litigation of Contentions 1 and 2 is deferred, pending the Board's conclusion on whether litigation of Contentions 11, 14, and 30 establishes that the proposed modification of the technical specifications is a major federal action.

Schedule for Case

7. Discovery and the filing of motions for summary disposition with respect to Contentions 11, 14, and 30 shall be concluded by the end of August 1990.

8. A hearing on Contentions 11, 14, and 30, if necessary, shall be scheduled early in October 1990.

Alleged Harassment

9. All material in our record that contains allegations of intimidation or harassment of Mr. Saporito shall be considered to be struck from our record.

Appeal

10. Applicant and the Staff may, pursuant to section 2.714a(c), appeal the portion of this order granting the petition to intervene, contingent on Mr. Saporito's response. The time for instituting an appeal shall, however, be suspended until after Mr. Saporito shall file his response to ¶ 2 of this order.

11. Except for ¶ 10 of this order, this is an interlocutory order from which there is no appeal at this time.

THE ATOMIC SAFETY AND
LICENSING BOARD

Dr. George C. Anderson (by PBB)
ADMINISTRATIVE JUDGE

Elizabeth B. Johnson (by PBB)
ADMINISTRATIVE JUDGE

Peter B. Bloch, Chair
ADMINISTRATIVE JUDGE

Bethesda, Maryland

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Robert M. Lazo, Chairman
Harry Foreman
Ernest E. Hill

In the Matter of

Docket No. 30-16055-SP
(ASLBP No. 87-545-01-SP)
(Suspension Order)

ADVANCED MEDICAL SYSTEMS, INC.

(One Factory Row,
Geneva, Ohio 44041)

June 12, 1990

In this case the Licensing Board grants summary disposition of four issues posited by Advanced Medical Systems, Inc., challenging the lawfulness of a summary license suspension order under the provisions of 10 C.F.R. §§ 2.200-2.206 and 10 C.F.R. § 30.61.

**RULES OF PRACTICE: STANDARD FOR REVIEW OF
SHOW-CAUSE DETERMINATION (SUMMARY LICENSE
SUSPENSION)**

The lawfulness of a summary license suspension order issued under 10 C.F.R. §§ 2.200-2.206 and 10 C.F.R. § 30.61 is determined by whether or not a Director's decision to issue the order is an abuse of discretion under the considerations announced in *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173 (1975).

**RULES OF PRACTICE: STANDARD FOR REVIEW OF
SHOW-CAUSE DETERMINATION (SUMMARY LICENSE
SUSPENSION)**

A Director's decision to issue a summary license suspension order under 10 C.F.R. §§ 2.200-2.206 and 10 C.F.R. § 30.61 must be based upon reliable, probative, and substantial evidence. "Substantial" means such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

**RULES OF PRACTICE: STANDARD FOR REVIEW OF
SHOW-CAUSE DETERMINATION (SUMMARY LICENSE
SUSPENSION)**

Only the evidence available to the Director at the time a decision is made to issue a summary license suspension order under 10 C.F.R. §§ 2.200-2.206 and 10 C.F.R. § 30.61 is relevant to a determination of whether or not the Director's decision to issue the order is an abuse of discretion. *Consolidated Edison Co. of New York* (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173 (1975), citing *Consumers Power Co.* (Midland Plant, Units 1 and 2), CLI-73-38, 7 AEC 12 (1973).

**RULES OF PRACTICE: STANDARD FOR REVIEW OF
SHOW-CAUSE DETERMINATION (SUMMARY LICENSE
SUSPENSION)**

A summary license suspension order issued under 10 C.F.R. §§ 2.200-2.206 and 10 C.F.R. § 30.61 is facially clear if the licensee can reasonably discern from the order the issues upon which it would need to seek discovery if a hearing is requested under 10 C.F.R. § 2.202(b).

**MEMORANDUM AND ORDER
(Granting NRC Staff Motion for Summary
Disposition and Terminating Proceeding)**

I.

The NRC Staff comes before the Board seeking summary disposition of four issues admitted for litigation in LBP-89-11.¹ The four issues question whether the

¹ 29 NRC 306 (1989).

NRC Staff had "substantial bases" for the decision to issue the summary license suspension order dated October 10, 1986, that gave rise to this proceeding, namely:

1. Whether or not there was a substantial basis for the NRC to conclude that it lacked the requisite reasonable assurances that AMS would comply with Commission requests in the future;
2. Whether or not there was a substantial basis for the NRC to conclude that continued conduct of certain licensed activities by AMS could pose a threat to the health and safety of the public, to wit: the performance of installation, service, maintenance or dismantling of radiography or teletherapy units;
3. Whether or not the NRC had a substantial basis for concluding that the public health, safety and interest required that AMS' License Number 34-19089-01 should be suspended;
4. Whether or not the NRC had a substantial basis for concluding that pursuant to 10 CFR Section 2.201(c) no prior notice was required as to its actions, and pursuant to 10 CFR Section 2.202(f) that the Suspension Order of October 10, 1986 should be immediately effective.²

In support of its Summary Disposition Motion,³ the Staff has proffered no less than sixty "statements of material fact as to which no genuine issue exists" and has provided the Board with affidavits and hundreds of pages of supporting documentation. Advanced Medical Services, on the other hand, has submitted a 35-page Brief in Opposition⁴ with its own statements of material fact still in dispute accompanied by several short affidavits. We have given careful consideration to these pleadings and find that no material facts remain in dispute.⁵

² *Id.*, 29 NRC at 313. The posture of this case requires the Board to review the merits of a decision by the Director, Office of Inspection and Enforcement, to issue a show-cause order to suspend a licensed activity and the collateral decision by the Director to make the order immediately effective under 10 C.F.R. §§ 2.200-2.206. NRC regulations do not explicitly provide for licensing board review of a summary license suspension order. Section 2.206(c)(1) provides that the Commission may, on its own motion, review the decision of the Director not to issue a show-cause order, and the Commission has taken limited review in several Commission issuances, discussed in the body of our decision. The Board draws its present jurisdiction from a Commission order. Notice of Hearing, 51 Fed. Reg. 43,790 (1986). That Notice provides "[t]he issue . . . to be considered and decided will be: whether, on the basis of the matters set forth in the Order, the Order should be sustained." *Id.*

³ NRC Staff Motion for Summary Disposition (January 10, 1990) ("Motion").

⁴ Advanced Medical Systems, Inc.'s Brief in Opposition to NRC Staff Motion for Summary Disposition (March 1, 1990) ("Brief").

⁵ The AMS Brief failed to address the NRC factual statements *seriatim* and provided little more than bare denials in the way of evidence. In several instances, AMS has asserted legal arguments that neither dispute the Staff's factual statements nor advance its own cause. See Brief at 30-34. It has long been held that the party opposing summary disposition must come forth with evidentiary facts to show that there is an outstanding unresolved material issue to be tried. *Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2)*, ALAB-443, 6 NRC 741, 754 (1977).

Both the Staff Motion and the AMS Brief seek factual findings from the Board that concern events that either occurred or were documented by the Staff after the Director issued the show-cause order on October 10, 1986. However, for reasons set forth in the text of our decision, our inquiry focuses on whether the Director abused his discretion in issuing the order. Our inquiry, therefore, focuses only on the information available to the Director at the time that he issued the order. See *Consolidated Edison Co. of New York (Indian Point, Units 1, 2, and*

(Continued)

However, our inquiry does not end there. The four issue statements question the legal sufficiency of the Director's decision to issue the summary license suspension order under 10 C.F.R. §§ 2.200-2.206 and 10 C.F.R. Part 30.⁶ It is to that issue we now turn.

The Staff argues that the four AMS issues are actually subsets of two issues which they attempt to refine for our inquiry:

The issues essentially question whether the NRC had good cause for suspending the AMS license and, if so, whether there was a basis to make such suspension immediately effective.⁷

However, the Board finds the issues to be amenable to even further refinement. In essence, the four AMS issue statements are nothing more than assertions that there was neither procedural nor substantive legal basis for the Director's decision to issue the October 10 summary suspension order. In this light, the discrete issue before us is: Under Commission regulations, did the Director act lawfully when he issued the summary suspension order? If the Director has acted lawfully in issuing the order, our inquiry need go no further.

At the outset, we note that the October 10 order was temporary in nature and that it was made in anticipation of a full hearing on the merits of the Director's findings under 10 C.F.R. § 2.202(f). Such preliminary administrative decisions demand a significant degree of judicial deference upon review.⁸ However, summary administrative decisions, even though temporary in nature, have not

3), CLI-75-8, 2 NRC 173, 175 (1975), citing *Consumers Power Co.* (Midland Plant, Units 1 and 2), CLI-73-38, 7 AEC 12 (1973) (abuse of discretion review based the information available to Director at the time he issued the order). In so limiting our review, many of the factual findings sought by both the NRC Staff and AMS are immaterial to the case at hand, although all were scrutinized by the Board. Of the facts listed in the NRC Staff's Statement of Material Facts as to Which No Genuine Issue Exists, Nos. 7, 10, 11, 13-17, 22-30, 32, 34, 37-39, and 50-53 are material to our review.

⁶ We find the legal sufficiency of a summary suspension order issued under 10 C.F.R. §§ 2.200-2.206 and 10 C.F.R. § 30.61 to be an issue distinct and apart from the issue of whether such a summary suspension order should remain in effect pending a hearing on the merits of that order. We reach a determination in this decision only as to the first issue.

⁷ Motion at 6.

⁸ Our inquiry focuses on the propriety of an administrative decision at a point where the administrator's discretionary authority is near its zenith — even without regard to the temporary consequences his decision may visit upon the Licensee. At the preliminary stage of the administrative process, no hearing is required by due process so long as the requisite hearing is held before the final administrative order becomes final. See *Ewing v. Mytinger & Casselberry*, 339 U.S. 594 (1949), citing *Lichter v. United States*, 334 U.S. 742 (1947); *Inland Empire Dist. Council v. Millis*, 325 U.S. 697 (1944); *Opp Mills v. Administrator of Wage & Hour Division*, 312 U.S. 126 (1940).

Discretion of any official may be abused. Yet it is not a requirement of due process that there be judicial inquiry before discretion can be exercised. It is sufficient, where only property rights are concerned, that there is at some stage an opportunity for a hearing and a judicial determination.

Ewing, 339 U.S. at 599, citing *Phillips v. Commissioner*, 283 U.S. 589, 596, 597 (1930); *Bowles v. Willingham*, 321 U.S. 503, 520 (1943); *Yakus v. United States*, 321 U.S. 414, 442, 443 (1943). This is not to say that a summary suspension order could never be subject to attack on the basis of a denial of due process. Such might be the case if a temporary suspension order caused the licensee enough economic stress to literally put it out of business. At that point the order has arguably evolved into a *de facto* final agency action.

totally escaped Commission scrutiny in the past. In a line of cases beginning with *Consumers Power Co.* (Midland Plant, Units 1 and 2), CLI-73-38, 6 AEC 1082 (1973) ("*Midland*"), the Commission tempered a limited administrative review of such decisions grounded squarely on the abuse of discretion standard.

In *Midland*, the Commission first found an inherent authority to review summary enforcement decisions to determine whether, on the basis of the information then available to him, the Director had abused his discretion. The need to review such an order was expressed succinctly:

The norm for administrative action modifying outstanding licenses embraces a prior opportunity to be heard. In exceptional circumstances, however, the Director is authorized to take summary administrative action. See 10 C.F.R. 2.202(f); section 9(b), Administrative Procedure Act, 5 U.S.C. 558(c); section 181, Atomic Energy Act of 1954, as amended, 42 U.S.C. 2231. But it has always been recognized that summary administrative action substantially curtailing existing rights . . . is a "drastic procedure." *Fahey v. Mallonee*, 332 U.S. 245, 253 (1947). See *Ewing v. Mytinger & Casselberry, Inc.*, 339 U.S. 594, 599 (1950); Davis, *Administrative Law* § 7.08.⁹

In *Indian Point*, CLI-75-8, *supra*, 2 NRC at 175, the Commission identified five elements germane to the review of a Director's decision *not* to issue a show-cause order:

1. Whether the statement of reasons given permits rational understanding of the basis for his decision;
2. whether the Director has correctly understood governing law, regulations, and policy;
3. whether all necessary factors have been considered, and extraneous factors excluded, from the decision;
4. whether inquiry appropriate to the facts asserted has been made; and
5. whether the Director's decision is demonstrably untenable on the basis of all information available to him.¹⁰

⁹ *Midland*, *supra*, 6 AEC at 1083.

¹⁰ *Id.* at 175. The *Indian Point* considerations were developed, in the main, because of two policy considerations. First, review of a Director's decision not to issue a show-cause order was found to be important because, "absent review, there will be no further proceedings within the Commission." *Id.* Second, the Commission desired to maintain "so far as possible the separation between 'prosecutorial' and quasi-judicial functions within the Commission, which our regulations establish by vesting in the Director the discretion to institute show cause proceedings." *Id.*; see also *Nuclear Regulatory Commission* (Licensees Authorized to Possess or Transport Strategic Quantities of Special Nuclear Materials), CLI-77-3, 5 NRC 16, 17, 20 n.6 (1977) (*Indian Point* review is essentially a deferral to the Staff's judgment on the facts relating to a potential enforcement action, to avoid premature commitment by the Commission on factual issues it may later be called upon to review). The extension of the *Indian Point* review to the affirmative issuance of a show-cause order in *Nuclear Engineering Co.* (Sheffield, Illinois Low-Level Radioactive Waste Disposal Site), CLI-79-6, 9 NRC 673 (1979), effectively removed finality from consideration. See 10 C.F.R. § 2.202(b) (A licensee may respond to an order to show cause and demand a hearing) and (c) (If the answer demands a hearing, the Commission will issue an order designating the time and place of hearing). Moreover, we do not read CLI-77-3 to bar the Board from adopting the *Indian Point* analysis to test the legal sufficiency of the Director's decision. We find the limited, legal inquiry developed by the Commission to be perfectly suited to the review of this type of preliminary/discretionary administrative decision.

In *Sheffield*, the *Indian Point* analysis was extended to the review of an affirmative decision to issue a show-cause order and the collateral decision to make the order immediately effective, "because that issue is inextricably intertwined with the Director's decision to issue the order."¹¹

Without further direction from the Commission, we see no reason to depart from the *Indian Point* analysis in our resolution of the case at bar.¹² It provides what we find to be an appropriately limited review of a discretionary decision at the initial stages of an administrative action.

II.

1. *Whether the statement of reasons given permits a rational understanding of the basis for the Director's decision:*

The October 10, 1986 Order Suspending License and Order to Show Cause (Effectively Immediately)¹³ ("Order") declares that the Director, Office of Inspection and Enforcement, lacked the requisite reasonable assurance that the Licensee's continued conduct would not pose a threat to the health and safety of the public. Two investigations are cited for the basis of this determination. The first, conducted by the NRC Staff in 1985,¹⁴ identified four violations of regulatory requirements and license conditions concerning "hot cell" activities at AMS facilities. The investigation resulted in a Notice of Violation and Proposed Imposition of Civil Penalties issued June 28, 1985. Additionally, on the same date, an Immediately Effective Order Modifying License was issued requiring AMS to take extensive radiation protection measures before each hot cell entry.

¹¹ *Sheffield*, 9 NRC at 676. Inexplicably, and almost inexcusably, neither the Staff nor AMS has provided any discussion of Commission case law with respect to the four AMS issues. This omission may be due to the Staff's apparent misunderstanding of the applicable law of this case. At footnote four of the Staff's Motion, we find the following notation:

[T]he issues admitted for litigation are concerned solely with the "substantial basis" for government action to be decided concerning award of attorneys fees set out in the Equal Access to Justice Act, 5 USC 504(a)(1).

Had the EAJA been controlling, the "substantial justification" standard for judicial review of discretionary administrative actions found in the EAJA may have been controlling. Even so, the Staff does not carry through by providing the Board with a discussion of applicable case law. *E.g.*, *Pierce v. Underwood*, 487 U.S. ___, 108 S. Ct. ___, 101 L. Ed. 2d 490 (1988); *Gavette v. Office of Personnel Management*, 808 F.2d 1456, 1465-66 (Fed. Cir. 1986), quoting H.R. Rep. 1418, 96th Cong. 2d Sess. 18, reprinted in 1980 U.S. Code Cong. & Ad. News 4953, 4984, 4997. However, the EAJA is inapplicable to the case before us: AMS sought the admission of the four issues "in the event that [AMS] is not afforded 'prevailing party' status under the EAJA." LBP-89-11, 29 NRC at 313 (emphasis supplied). The exclusory language in this statement should have been enough to place the parties on notice that the EAJA is inapplicable to the issues before us.

¹² The Commission stated its intention at the time of the *Indian Point* decision to address procedural issues such as the review of show-cause orders in future, general rulemaking proceedings. *Indian Point*, 2 NRC at 175. We are unaware of any proceedings finalized to date. "In the interim, we adhere to the stated standard." *Id.*

¹³ 51 Fed. Reg. 37,674 (1986).

¹⁴ Investigation Report No. 030-16055/85-001(DRSS) issued June 28, 1985.

The second investigation cited in the October 10, 1986 Order was initiated on September 17, 1986, but was not completed until November 12, 1986.¹⁵ The order states that this was an unannounced special inspection initiated in response to allegations received by NRC Region III in September 1986, concerning unauthorized/unqualified individuals performing licensable field service work on cobalt-60 teletherapy units located at AMS client hospitals and/or clinics. On the basis of the then-unfinished investigation (up to October 10), the Director makes the following allegations in the order:

[E]mployees of the licensee were directed to perform certain service and maintenance on teletherapy equipment at medical facilities notwithstanding their lack of NRC authorization, their lack of required training to perform the directed maintenance, their lack of appropriate radiation detection and monitoring equipment or required service manuals, and their express objections to performing such maintenance without proper training. In addition, one hospital at which such service and maintenance was performed has indicated its belief that a licensee employee was unqualified to perform the maintenance of its teletherapy equipment.¹⁶

We do not find the October 10 Order inherently confusing or oblique. The order articulates the alleged license violations — unauthorized maintenance, lack of required maintenance training, and the lack of appropriate radiation monitoring techniques — upon which the Director has based the decision to temporarily suspend AMS licensed activities. The order is clear enough to allow AMS to identify the issues it would need to “flesh out” during the discovery process if it requested a hearing under 10 C.F.R. § 2.202(b). We do not read *Indian Point* or *Sheffield* to require more. There is sufficient basis for understanding the order.

2. *Whether the Director has correctly understood governing law, regulations, and policy.* In the October 10 Order to Show Cause, the Director cites sections 81, 161(b), 161(c), 161(o), 182, and 186 of the Atomic Energy Act of 1954, as amended, and the Commission’s regulations in 10 C.F.R. § 2.202 and 10 C.F.R. Part 30 as the legal authority for his actions. We find, without the need for lengthy recitation here, that the citations to the Atomic Energy Act are correctly made and provide time-tested legal authority for the Director to act.¹⁷

The provisions of 10 C.F.R. § 2.200, *et seq.*, set forth the procedures for issuing a show-cause order. Specifically, section 2.202(a) allows the Director

¹⁵ Inspection Report No. 030-16055/86-001(DRSS) dated November 25, 1986.

¹⁶ Order, 51 Fed. Reg. 37,674 (1986).

¹⁷ Section 81, 42 U.S.C. § 2111 (Commission authority to issue byproduct material licenses); section 161(b), 42 U.S.C. § 2201(b) (Commission authority to establish rules and regulations to govern the use of byproduct material); section 161(c), 42 U.S.C. § 2201(c) (Commission authority to conduct investigations and hearings); section 161(o), 42 U.S.C. § 2201(o) (Commission authority to require inspection of reports and activities of licensees); section 182, 42 U.S.C. § 2232 (Commission authority to require technical and supplemental information to become part of a license); section 186, 42 U.S.C. § 2236 (Commission authority to revoke license for failure to comply with terms of license).

to suspend a license by serving on the licensee a show-cause order that sets out the alleged license violations. Section 2.202(f) allows the Director to make the show-cause order "temporarily effective pending further order" if he has made a determination that the "public health, safety, or interest so requires." The Director's understanding of this latter procedural requirement is best illustrated by a statement found in the October 10 Order:

Specifically, the performance of installation, service, maintenance or dismantling of radiography or teletherapy units by unauthorized and unqualified individuals could result in the overexposure of individuals receiving or administering teletherapy treatment or performing maintenance or service on radiography or teletherapy units.¹⁸

On the basis of order we have no reason to doubt that the Director believed that license violations had occurred and that he believed that the public health, interest, or safety required immediate, albeit temporary, enforcement measures. We find the Director to have had the requisite understanding of the procedural predicates to the issuance of a summary suspension order under 10 C.F.R. § 2.202.

The provisions of 10 C.F.R. Part 30 provide the Director with the legal authority to issue and regulate byproduct materials licenses, to conduct investigations into licensed activities, and to enforce the terms of licenses. The section most germane to our inquiry is section 30.61 which provides in pertinent part:

(b) Any license may be revoked, suspended or modified, in whole or in part, . . . because of conditions revealed by . . . any report, record or inspection . . . or for violation of, or failure to observe any of the terms and provisions of the Act or of any rule, regulation or order of the Commission.¹⁹

(c) Except in cases of willfulness or those in which the public health, interest or safety requires otherwise, no license shall be modified, suspended or revoked unless, prior to the institution of proceedings therefor, facts or conduct which may warrant such action shall have been called to the attention of the licensee in writing and the licensee shall have been accorded an opportunity to demonstrate or achieve compliance with all lawful requirements.²⁰

In its Brief, AMS vigorously disputes the Director's interpretation of the phrase "licensable service work" in an attempt to discredit the findings upon which the Director based his decision. Undoubtedly, if the AMS license was suspended on the basis of unregulated activities, the Director's actions would be *ultra vires* and could not be sustained. Therefore, in the context of this case, we must review the Director's findings regarding licensed service activities to

¹⁸ Order, 51 Fed. Reg. 37,674 (1986). The Staff's affidavit presents unrefuted evidence that a whole-body radiation exposure from a medical teletherapy unit over 3-4 minutes can deliver a fatal dose of radiation. NRC Staff Affidavit, *supra*, ¶ 10.

¹⁹ 10 C.F.R. § 30.61(b) (1986).

²⁰ 10 C.F.R. § 30.61(c) (1986).

see if they are grounded in the law.²¹ To do this, however, we need to develop a better understanding of the factual predicates upon which he made his decision to act.

The index of "Attachments to Motion for Summary Disposition," itself offered as an attachment to the Staff's Motion, shows the following items (apart from the AMS license and byproduct material license applications) predating the October 10 Order:

5. Interview of James M. Leslie by R. Burgin, G. McCann, 9/17/86;
8. Letter dated September 23, 1986 from L.T. Kosnik, Munson Medical Center, to R. Burgin USNRC, RIII;
9. Letter dated September 22, 1986 from R. Davis, Munson Medical Center, to R. Burgin, USNRC, RIII;
11. Interview of Russel P. Fortier by R. Burgin, G. McCann, 9/19/86;
17. Interview of Garnett C. Light by R. Burgin, G. McCann, 9/29/86;
23. Interview of Richard G. Speer by R. Burgin, G. McCann, 10/1/86;
38. Interview of Paul Carani by R. Burgin, G. McCann, 10/1/86.²²

On the basis of these documents, the Staff argues that, as of October 1, 1986:

the [Director] had obtained evidence of eleven unauthorized service actions; including AMS management involvement, fourteen service actions performed without radiation monitoring equipment or service manuals, and two service actions which were not tested.²³

The "Interview of James M. Leslie" is a handwritten "report of interview" transcribed by NRC employee Burgin, witnessed by NRC employee McCann, and signed by Mr. Leslie.²⁴ Mr. Leslie was an unlicensed service technician employed by AMS until a few days prior to the interview. Mr. Leslie stated in the course of the interview that Mr. Paul Carani, AMS Field Supervisor, sent him to the Munsen Medical Center to install a new timer on a Cobalt-60 teletherapy unit on April 28, 1986. Mr. Leslie states that he had no idea how to install or test the timer. He states that he did not operate the unit to check the timer after installation, but that the hospital's physicist conducted the test. He also states that Mr. Carani had asked him to do work on the gantry of another Cobalt-60 unit, but he refused to do the work without training. Mr. Leslie then states that he was not aware of anyone else working on the Cobalt-60 units that was not licensed.

²¹ Both the NRC Motion and the AMS Response treat the issue of licensed service activities as a question of fact. We do not agree.

²² AMS attacks the credibility of the individuals giving these statements on the basis of inconsistencies alleged to be found in similar statements taken after the order was issued. See Brief at 31-32. However, AMS fails to refute either that the work was actually carried out or carried out by those individuals claiming to have done the work.

²³ Motion at 18.

²⁴ USNRC Inspection Report No. 030-16055/86-001(DRSS) ("Inspection Report"), Attach. A at 1.

The "Letter of L.T. Kosnik" is a signed letter on Munsen Medical Center letterhead.²⁵ In the letter, Mr. Kosnik states that he is the Radiation Safety Officer and Physicist for the Center. Mr. Kosnik confirms that Mr. Leslie came to the Center on April 28 and "replaced the back up timer and checked the wiring of the console" on the Cobalt-60 unit. Mr. Kosnik states that "to [his] knowledge, [Mr. Leslie] did not expose the source himself, but it is possible."

The "Letter of Doug Davis" is a signed letter on Munsen Medical Center letterhead.²⁶ Mr. Davis is the Technical Director of the Center's Department of Radiology. In his letter, Mr. Davis also verifies that Mr. Leslie replaced the timer in the Cobalt-60 unit and proceeded to "check the wiring at the control unit itself and inside the Cobalt unit." Mr. Davis admits that he became very upset with AMS and called another service company to service the Cobalt unit. Contrary to the statement of Mr. Leslie, Mr. Davis says that he is "positive that Mr. Leslie activated the unit to test the new timer . . . while he was [at the Center]" although he could not find a copy of the service report.

The "Interview of Russell P. Fortier" is a handwritten "report of interview" transcribed by NRC employee Burgin, witnessed by NRC employee McCann, and signed by Mr. Fortier.²⁷ Mr. Fortier worked for AMS for 2 years but quit as an unlicensed field service engineer in December of 1985. Mr. Fortier states that he was sent by Mr. Carani to do work on Cobalt-60 units. More specifically, he states that in May of 1985 he did "some wiring work on the one main cable" of the Joint Disease Tumor Hospital's Cobalt-60 unit. He states that he did not have a survey meter or a "Tattler" or a "Rad-Tad" meter with him at the time. He states that he did a timer replacement at Ball Memorial Hospital in October of 1985 and "a man named 'Fred' at the hospital and I activated the unit a couple of times." He also states that, although he could not remember the date, he changed the "vertical drive belt that adjusts the source to patient distance" at a hospital in Minnesota. He also states that the only other unlicensed person doing "head work alone was Rick Speer, who worked on the teletherapy unit at the Joint Disease Tumor Hospital in May of 1985." Further, he states that he "did one job on a collimator in . . . Nassau Co. Hospital with Mr. Cochran and Keith Jordan" in September of 1985. He "was not sure that Keith Jordan was licensed at the time, but he and I worked alone together after Jim Cochran left us."

²⁵ *Id.*, Attach. C.

²⁶ *Id.*, Attach. D.

²⁷ *Id.*, Attach. E.

The "Interview of Garnett C. Light" is a typed "report of interview" signed by NRC Employees Burgin and McCann.²⁸ Mr. Light has not signed the document. Mr. Light had been employed as the Mechanical Assembler at AMS for 2 years. The report states that in June of 1986, after a licensed service engineer left for personal reasons, Mr. Light completed the wiring from the unit stand to the control console alone at Veteran's Administration Hospital. The report states that Light also performed safety tests, and emergency and interlock checks which required his activating the unit (exposing the source). The report further states that Mr. Light performed a head installation (with the source loaded in the head) at Eastside Radiology. The report states that Mr. Light complained to Mr. Carani that he "can't do that" but Mr. Carani told his "don't worry about it — just do it." The report also states that no service manual was available for a source exchange at Bronx VA Hospital even though a licensed service engineer performed the work.

The "Interview with Richard G. Speer" is a handwritten "report of interview" transcribed by NRC employee Burgin, witnessed by NRC employee McCann, and signed by Mr. Speer.²⁹ Mr. Speer had been working as a Mechanical Assembler at AMS for 2 years. Mr. Speer states that in the spring of 1985 he alone "replaced the control panel, which involved cutting the old wires and splicing the new ones" at St. Joseph's Hospital. He states that during the job he had a "visitor" film badge but not pocket dosimeter, no Rad-Tad, and no diagrams or service manuals. He states that he "activated the unit to check if the shutter opened and closed, and left without performing any safety checks" but that he assumed "the hospital checked the unit the next day." He states that in May of 1985 he was sent alone to the Joint Disease Center to do a head tilt drive motor wiring repair but could not fix it. Again he states that he did not have a pocket dosimeter, a Rad-Tad, a survey meter, or diagrams or service manuals. Mr. Speer further states that in September of 1986 he was sent to a Detroit VA Hospital where he replaced a timer, again with the aforementioned radiation detection devices. He says he "personally operated the unit, watched by a therapy tech."

The "Interview of Paul Carani" is a typed "report of interview" signed by NRC employees Burgin and McCann.³⁰ Mr. Carani did not sign the document. The report generally imparts what Mr. Carani viewed as "licensed service work" after being posed such questions by Messrs. Burgin and McCann. After one such question, the report says, Mr. Carani stated that "[l]icensable work includes source and shutter work, electrical cable wiring and the control panel." The

²⁸ *Id.*, Attach. J.

²⁹ *Id.*, Attach. L.

³⁰ *Id.*, Attach. P.

report also states that when asked "if the timer was also licensable work" Mr. Carani answered "yes."

To capsulize the above, as of October 1, 1986, the Director had evidence that: (1) unlicensed individuals were replacing and repairing timer mechanisms; (2) unlicensed individuals were exposing the unit source; and (3) individuals were conducting maintenance activities without following appropriate safety procedures. We now look to the law to see if there is a fit.

In the Staff's Affidavit, the Licensing Board is informed that because of the small number of teletherapy service companies in existence, the conditions of authorized, licensed activity are contained in the documents submitted in support of the application for license rather than in detailed regulations. More specifically, "the definition of licensed service work on teletherapy units is drawn entirely from documents and letters submitted by AMS in support of its application for license."³¹ The Staff's reliance upon supporting documents as the basis for license requirements is consistent with the Atomic Energy Act, Commission regulations, and past Commission practice.³²

AMS was originally issued two licenses which were later combined into one in June of 1986.³³ The "02" license, issued in July 1980 authorized installation, maintenance, dismantling, and servicing of Picker and AMS teletherapy units. The application for the "02" license submitted by AMS included supporting documentation that included representations by AMS management that certain conditions would be met if the license were to issue:

All work requiring a specific license which does not involve removal of a sealed source from its shielded container but does include operation of an exposure device, will be performed by persons formally approved to do so by the Advanced Medical Systems, Inc., Isotope Committee.

³¹ NRC Staff Affidavit, *supra*, ¶ 27.

³² See Atomic Energy Act of 1954, § 182(a), 42 U.S.C. § 2232 (Commission authority to require supplemental information from license applicant and to incorporate such into license); 10 C.F.R. § 30.34; 10 C.F.R. § 35.26(b); Preamble to NRC Form 374 (5-84). Also, in late 1986, the Commission published notice in the *Federal Register* of its revision to 10 C.F.R. Parts 30-35. Final Rule, 51 Fed. Reg. 36,932 (1986). In that notice, the Commission gives a clear account of its regulatory program and licensing practices regarding byproduct material licenses of the type issued to AMS:

Applications for a specific license are very detailed and contain the applicant's step-by-step radiation safety procedures, which are reviewed and approved individually by NRC. . . . Applicants include as an integral part of the application package, copies of their proposed step-by-step radiation safety procedures. . . . Application review practice must be very conservative because the application and license comprise the basis for regulatory control. . . . Requirements in addition to those contained in the regulations are frequently incorporated in the license as conditions of use. Since the licensee must comply with conditions specified in the license, the license, rather than the regulations, is frequently used to regulate radiation safety in the day-to-day use of byproduct material.

Id. at 36,933.

³³ NRC License Nos. 34-19089-01 and 34-19089-02.

Formal Training:

All users will be given the training course, "Cobalt Therapy Unit Service Training Course" the outline of which is attached. . . .³⁴

The Introduction to the Factory Training Course contains the following statements:

To safely service a cobalt therapy unit, personnel must have a working knowledge of valid nuclear radiation and be well versed in the practice of radiation safety. In addition, the service engineer must be trained and experienced in the specific service techniques and emergency procedures applicable to cobalt units. . . . [O]nly qualified service engineers should attempt major repairs to the equipment. . . . Licensed operations include work involving the source or parts of the unit which could result in increased exposure to the source. This includes work on the source shutter or other mechanisms which could expose the source, reduce shielding around the source, or compromise the safety of the unit and result in increased exposure levels.³⁵

In February of 1980, the NRC wrote AMS requesting further clarification on the procedures for performing service on teletherapy units. AMS responded in a March 10, 1980 letter with attached procedures in the form of a Cobalt Service Procedure Manual.³⁶ The letter states:

[S]ervice technicians will be thoroughly trained in the techniques of proper alignment of teletherapy systems. . . . Emphasis is to be placed upon safety, (electrical, mechanical and radiation). . . . The training will consist of the formal training course [sic] (80 hours, approximately 40 hours each of classroom and laboratory exercises) and continuing on-the-job training. . . . This time will be used by having the service technician perform the service under the supervision of a licensed service engineer while on routine service calls. . . . Before the service technician will be permitted to work independently the above program must have been accomplished and the technician must demonstrate to the Isotope Committee his or her ability to perform satisfactorily all phases of service. The Committee must certify the technician to perform the service operations.³⁷

In the Cobalt Service Procedures Manual attached to and forwarded with the March 10 letter, we find the following representations:

These procedures are to be followed by Advanced Medical Systems, Inc. service technicians when performing service on Advanced Medical Systems, Inc. and Picker Corporation Cobalt-60 Teletherapy and Industrial Radiography Systems. . . . If, during service, licensable work

³⁴ Motion, *supra*, Attach. 2, Nov. 16, 1979 Application for Byproduct Material License by Advanced Medical Systems, Inc., Schedule "B" at 3.

³⁵ *Id.*, Factory Training Course at 9.

³⁶ *Id.*, Attach. 3, March 10, 1980 letter with additional information submitted by Advanced Medical Systems, Inc., concerning application for Byproduct Material License.

³⁷ *Id.* at 1.

is to be performed but has been omitted from these procedures the Radiation Safety Officer shall be notified *before* proceeding.³⁸

. . . .

All individuals while performing licensable service work must wear radiation monitoring including film badges, personal dosimeters and audible detectors.³⁹

. . . .

Licensable Service Operations

The following operations must be performed *only* by a person certified on the license.

. . . 5. Collimator Removal & Installation

. . . 9. Unit tests and Demonstration⁴⁰

. . . .

Any person engaged in Licensable operations or directly assisting in these operations must have on his person at all times during these operations the film badge provided by the Advanced Medical Systems, Inc. . . . In addition to the above mentioned film badge, a direct reading pocket dosimeter shall be worn. . . . The licensed person shall wear an audible gamma alarm during service operations. The alarm should be the Tattler, Rad-Tad or equivalent.⁴¹

Without more, we find the discussion sufficient for us to conclude that under the terms of the AMS license:

- (1) Since the timer of a teletherapy unit controls the amount of time a patient is exposed to radiation,⁴² work on the timer mechanism of a teletherapy unit can be interpreted no other way than to be work "which could result in increased exposure to the source . . . which could compromise the safety of the unit and result in increased exposure levels"⁴³ and must be carried out by or in the presence of a licensed service technician;⁴⁴
- (2) Exposure of the source material must be carried out by or in the presence of a licensed service technician;⁴⁵
- (3) All individuals, while performing licensed service work must wear radiation monitoring devices including film badges, personal dosimeters, and audible gamma radiation detectors (Tattler, Rad-Tad or equivalent).⁴⁶

³⁸ *Id.*, Cobalt Service Procedure Manual at 1.

³⁹ *Id.* at 5.

⁴⁰ *Id.* at 9.

⁴¹ *Id.* at 15.

⁴² NRC Staff Affidavit, *supra*, ¶ 8(f).

⁴³ Motion, *supra*, Attach. 2, Factory Training Course at 9.

⁴⁴ *Id.*

⁴⁵ *Id.*, Schedule "B" at 3.

⁴⁶ *Id.*, Attach. 3, Cobalt Service Procedure Manual at 5, 15. We do not mean to say that this list is exhaustive of AMS license requirements or violations, only that the list is sufficient for our review.

On the basis of the foregoing, we reach the conclusion that the Director correctly interpreted the meaning of "licensable service work" under the provisions of the AMS license. He therefore had the requisite understanding of Commission regulations when he issued the order.

As to the last element of the second *Indian Point* consideration, we need look no further than the protection of the public health and safety to find that the Director correctly understood the governing Commission policy regarding license suspensions. The fundamental principle guiding all Commission licensing actions is the paramount consideration of public safety. This principle pervades the regulatory scheme established by the Atomic Energy Act and requires all persons to act with respect to nuclear materials in a manner that does not constitute a threat to public health and safety. *Sheffield*, 9 NRC at 676-77. The Director's concern focused on the maintenance of teletherapy equipment at medical facilities. The Director reasonably concluded that substandard or ill-planned maintenance on teletherapy equipment had the potential for immediate, adverse health consequences to both the public and the individuals working on the equipment and his concern has been set out in the order. The Director had the requisite understanding of Commission policy.

3. *Whether all necessary factors have been considered, and extraneous factors excluded, for the decision.* The October 10 Order leaves little room for doubt that the Director considered only the relevant factors in making his decision. Two inspections by the NRC Staff had revealed four documented license violations and allegations of several others occurring over a 2-year time period which could reasonably be expected to place the public health and safety at risk. There is simply no evidence of the consideration of extraneous factors on the part of the Director.⁴⁷

4. *Whether inquiry appropriate to the facts asserted has been made.* After being alerted to potential license violations on September 15, 1986, and prior to the issuance of the license suspension order on October 10, 1986, NRC Region III Staff conducted personal interviews with nine individuals directly involved with AMS licensed activities involving the maintenance of teletherapy units at medical facilities. Those interviewed included: former and current technicians who had performed the alleged unauthorized maintenance work, AMS's only full-time licensed service engineer, AMS's Field Service/Production Manager, and two members of the radiological staff from one of AMS's client hospitals.⁴⁸ The inquiries were conducted or directed by at least five NRC employees with

⁴⁷ AMS makes several bald assertions concerning: bias on the part of an NRC Employee involved in the decision to issue the show-cause order (Brief at 17), an NRC Employee involved in a Staff inspection (*id.* at 18), and the institutional bias created by the vested interests of NRC employees (*id.* at 28). None of these allegations are substantiated by supporting documentation or affidavit.

⁴⁸ NRC Staff Affidavit, *supra*, ¶ 20.

expertise in AMS licensed activities⁴⁹ and who evidence particular expertise in the area of radiation safety.⁵⁰ Given the nature of the allegations and the perceived threat to the public's and AMS's employee's health and safety, we do not find the scope of the Staff's inquiry to be either too shallow or too short. We find the Staff's inquiry appropriate to the facts asserted in the suspension order.

5. *Whether the Director's decision is demonstrably untenable on the basis of all information available to him.*

Under the fifth *Indian Point* consideration, the Board's inquiry for the first time focuses on the core of the Director's decision. We must determine, upon the facts available to the Director at the time he made his decision, whether that decision is "untenable" — "not able to be defended or maintained."⁵¹ If this direction is to be followed, our inquiry must measure the adequacy of the information available to the Director and the reasonableness of his decision based upon that information. But what questions do we ask about this information? Was there enough information? Was the information reliable? What is the appropriate legal standard to be applied?

The legislative histories of section 186 of the Atomic Energy Act and section 9(b) of the Administrative Procedure Act provide little in the way of an answer to our question.⁵² Both the Senate and House Judiciary Committees commenting on applicable provisions of the Administrative Procedure Act expressed concern that the exception to the requirement that advance notice be given to the licensee prior to a license suspension should "apply only where the demonstrable facts fully and fairly warrant the application of the exceptions."⁵³ As to the other considerations:

⁴⁹ George McCann, Chief of the Materials Licensing Section, Nuclear Materials Safety Branch, Division of Radiation Safety and Safeguards, USNRC Region III, was present during most if not all the interviews. Mr. McCann states that he had added awareness of AMS's license requirements since he was the Senior License Reviewer assigned the responsibility for reviewing AMS's license renewal application pending at that time. *Id.*, ¶ 19b.

⁵⁰ Professional Qualifications of George M. McCann, Darrel G. Wiedeman, Bruce Mallett, and William L. Axelson, attached to NRC Staff Affidavit, *supra*.

⁵¹ Webster's *Third New International Dictionary of the English Language*, 1976 Ed.

⁵² The authority upon which the Commission bases its ability to summarily suspend a license under 10 C.F.R. § 30.61 is found in section 186 of the Atomic Energy Act of 1954, as amended, 42 U.S.C. § 2236. See Rule Amendment, 35 Fed. Reg. 11,460 (1970). Section 186(b), in turn, makes section 9(b) of the Administrative Procedure Act (5 U.S.C. § 558(c)) applicable to license suspensions. That provision states in relevant part:

Except in cases of willfulness or those in which public health, interest, or safety requires otherwise, the withdrawal, suspension, revocation, or annulment of a license is lawful only if, before the institution of agency proceedings therefor, the licensee has been given—

(1) notice by the agency in writing of the facts or conduct which may warrant the action; and
(2) opportunity to demonstrate or achieve compliance with all lawful requirements.

⁵³ S. Rep. No. 752, 79th Cong. 1st Sess. (1945), reprinted in *Administrative Procedure Act: Legislative History*, S. Doc. No. 248, 79th Cong. 2d Sess. 185, 211-12 (1946).

Willfulness must be manifest. The same is true of "public health, interest, or safety." The standard of "public * * * interest" means a situation requiring immediate action irrespective of the equities or injuries to the licensee, but the term does not confer upon agencies an arbitrary discretion to ignore the requirement of notice and an opportunity to demonstrate compliance.⁵⁴

However, none of these considerations are expressed in the version of the APA finally enacted. They do little to answer the issue posited above. This leads us to the conclusion that our issue is *res nova*, but we are not without direction.⁵⁵

Recognizing that we are reviewing a discretionary decision made at the initiation of an administrative enforcement action yet to run its course, we are loathe to tie too tightly the hands of an administrator charged with the protection of the public health and safety — the efficiency and flexibility of the administrative process at this stage should be maintained, not contracted.⁵⁶ Therefore, we find neither justification nor need to measure the sufficiency of the Director's information on any basis other than the threshold evidentiary requirements associated with administrative proceedings under the Administrative Procedure Act — that the information he bases his decision upon be reliable, probative, and substantial — within the context of reasonableness.

Turning then to what we know was available to the Director at the time he issued the summary suspension order, we find no reason for him to suspect that the information provided by his investigators was unreliable, nor do we find it so. The signed interviews provided by the former and then current AMS employees are tantamount to sworn statements. The investigative reports, although unsigned by the interviewees and marginally hearsay, are also not unreliable. In his position of authority, the Director could question the investigators to determine the strength of their credibility if he so chose. Nor do we have reason to believe the two signed letters from the radiology staff at the Munsen Medical Center are

⁵⁴ *Id.* The House Judiciary Committee expressed almost the same concern as its Senate counterpart:

The exceptions . . . apply only where the demonstrable facts fully and fairly warrant their application. Willfulness must be manifest. The same is true of "public health, interest, or safety." The standard of "public * * * interest" means a situation where clear and immediate necessity for the due execution of the laws overrides the equities or the injury to the licensee; the term does not confer upon agencies authority at will to ignore the requirement of notice and an opportunity to demonstrate compliance.

Rep. No. 1980, 79th Cong. 2d Sess. (1946), reprinted in *Administrative Procedure Act: Legislative History*, S. Doc. No. 248, 79th Cong. 2d Sess. 233, 275 (1946).

⁵⁵ *Novum judicium non dat novum jus, sed declarat antiquum; quia judicium est juris dictum et per judicium jus est noviter revelatum quod diu fuit velatum.* (A new adjudication does not make a new law, but declares the old; because adjudication is the utterance of the law, and by adjudication the law is newly revealed which was for a long time hidden.)

⁵⁶ Our concern for the efficiency of the administrative process weighs heavily in our decision. However, this concern does not extend to the equitable issues surrounding a summary suspension order after the order has issued (whether the burden of an enforcement order on the licensee arguably outweighs the immediate threat to the public, or whether the issues do not lend themselves to an expedient hearing). At present, we are unaware of any procedural mechanism by which a licensee can stay the effect of a temporary summary suspension order.

unreliable. Moreover, all of the foregoing documents are probative (i.e., tending to prove the conclusion the Director reached in issuing the order).

"Substantial," as we use the term here, does not mean a large or considerable amount of evidence, but rather "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consolidated Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938). Here, on the basis of the information available to him, the Director reached two conclusions — one, that license violations had occurred, and two, that the public health, interest, and safety required the summary suspension of the AMS licensed activities. In view of the information contained in the documents available to the Director at the time of the summary suspension order, we find that a reasonable conclusion could be drawn from the information that unlicensed technicians were performing maintenance on Cobalt-60 teletherapy machines. The Director, through consultation with the radiation safety experts available to him,⁵⁷ could also readily conclude on the basis of that information, that such maintenance, if carried out haphazardly or negligently, posed a great and immediate safety risk to both the person performing the maintenance and patients being treated by the teletherapy units. Moreover, the statements concerning the lack of radiation safety detectors during collimator maintenance activities showed either a lack of respect for or a conscious disregard of radiation safety on the part of the AMS employees or its management. The Director could reasonably conclude that such conduct had led or could lead to undetectable radiation exposure to the workers.

Without more, the information the Director relied upon was reliable, probative, and substantial in character and was sufficient for him to reach the conclusions he did at the time he made his decision to issue the summary suspension order. The Director's actions were reasonable and therefore we do not find his decision to be demonstrably untenable.

On the basis of the foregoing, we do not find the Director to have abused his discretion in issuing the summary license suspension order dated October 10, 1986.

III.

For all the foregoing reasons and upon consideration of the entire record in this matter, it is, this 12th day of June 1990, ORDERED

(1) The NRC Staff Motion for Summary Disposition (January 10, 1990) is granted;

⁵⁷ The investigators from Region III were amply qualified to understand the danger inherent in the medical use of Cobalt-60. See Professional Qualifications of George M. McCann, *et al.*, attached to NRC Staff Affidavit, *supra*.

(2) The Order Suspending License and Order to Show Cause (Effectively Immediately) issued by the Director, Office of Inspection and Enforcement, and dated October 10, 1986, is sustained;

(3) The four (4) statements of issues admitted for litigation as contentions in this proceeding are dismissed; and

(4) There being no additional contentions pending in the matter, this Suspension Order proceeding is terminated.⁵⁸

THE ATOMIC SAFETY AND
LICENSING BOARD

Robert M. Lazo, Chairman
ADMINISTRATIVE JUDGE

Harry Foreman
ADMINISTRATIVE JUDGE

Ernest E. Hill
ADMINISTRATIVE JUDGE

Bethesda, Maryland
June 12, 1990

⁵⁸ Two companion cases remain pending: *In the Matter of Advanced Medical Systems, Inc.* (Decontamination Order), Docket No. 30-16055-OM, ASLBP No. 87-555-01-OM; *In the Matter of Advanced Medical Systems, Inc.* (Overexposure Civil Penalty), Docket No. 30-16055-CP, ASLBP No. 89-592-02-CP.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judge:

Peter B. Bloch

In the Matter of

Docket Nos. 70-00270
30-02278-MLA
(ASLBP No. 90-613-02-MLA)
(Re: TRUMP-S Project)
(Byproduct License
No. 24-00513-32;
Special Nuclear Materials
License No. SNM-247)

CURATORS OF THE
UNIVERSITY OF MISSOURI

June 15, 1990

The presiding officer admits two parties, after detailed consideration of standing questions, and admits six of seven areas of concern presented by those parties. He defers action on a request for a stay on the ground that the criteria for a stay have not been met but that adequate information is not currently available for use by the intervenors.

RULES OF PRACTICE: SUBPART L: STANDING

The presiding officer found that residence of a member of a concerned organization within 2 miles of an experiment utilizing 10 grams of plutonium was adequate to establish standing. He said, following *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-90-3, 31 NRC 40, 41 (1990), that:

[F]or an organization to have standing it must show injury in fact to its organizational interests or to the interest of members . . . who have authorized it to act for them. Where

the organization is depending upon injury to the interest of its members or sponsors to establish standing, the organization must provide with its petition identification of at least one member or sponsor who will be injured, a description of the nature of that injury, and an authorization for that organization to represent that individual in the proceeding. The injury in fact must be arguably within the zone of interests protected by statutes covering the proceeding.

RULES OF PRACTICE: SUBPART L; STANDING (ORGANIZATIONAL PURPOSE)

An organization may not be an intervenor unless the areas of concern it advances are consistent with its organizational purpose.

RULES OF PRACTICE: STANDING (SUBPART L); INJURY IN FACT

A petitioner must show "injury in fact" in order to obtain standing. However, the phrase "injury in fact" does not bear its ordinary English meaning and refers to an injury that may be possible should a proposed governmental action proceed. Nor is it required that as part of consideration of standing that a petitioner prove that injury will actually occur. It is enough to have reasonable grounds for believing that injury may occur.

The "injury in fact" test is the same for formal adjudication and for Subpart L cases.

RULES OF PRACTICE: SUBPART L; AREA OF CONCERN

The presiding officer admitted six of seven areas of concern, pointing out that a petitioner need not even state a concern, just an "area of concern." One area of concern, relating to fears concerning an alleged effect of this experiment on nuclear proliferation, was excluded because there was no showing of any legal basis for the claim and it was therefore not germane to the license.

NUCLEAR PROLIFERATION: SUBPART L; EXCLUDED AS A PERMISSIBLE "AREA OF CONCERN"

When petitioner fails to rely on any legal materials to assert that a project improperly risks "nuclear proliferation," they have not stated a legally cognizable "area of concern" that is germane to the pending application for a license.

RULES OF PRACTICE: SUBPART L; STAY

Petitioners' are required to file a request for a stay at the outset of their case, even though information relevant to their need for a stay may not be available to them. Consequently, the presiding officer reviewed the criteria for granting a stay and deferred action based on the lack of relevant information available to the Petitioners.

RULES OF PRACTICE: SUBPART L; RIGHT TO PRIOR HEARING (STAY)

Petitioners' arguments that they have a right to a hearing prior to the granting of a license or amendment, with respect to the amendment of a special materials license, is arguably meritorious but nevertheless impermissible as a challenge to the agency's procedural regulations.

RULES OF PRACTICE: SUBPART L; TIMELINESS

When a petition has been filed without any formal notification that a licensing action is pending, the time of actual notice from which timeliness is reckoned is the time of actual notice that there is a licensing action pending in which a person may be permitted to intervene.

TECHNICAL ISSUES DISCUSSED

Neptunium; Americium; Plutonium; Dispersion of plutonium through fire or explosion, model of.

MEMORANDUM AND ORDER **(Admitting Parties and "Areas of Concern";** **Deferring Action on a Stay)**

Memorandum

This Memorandum addresses a variety of issues that have arisen as this case has just gotten under way. It admits several parties and their "areas of concern" and defers action on a request for a stay of the TRUMP-S project.

I. FILINGS IN THIS CASE

This docket was initiated with a "Request for Hearing and Stay Pending Hearing," May 7, 1990 (Request), filed by the Missouri Coalition for the Environment, the Mid-Missouri Nuclear Weapons Freeze, Inc., and the Physicians for Social Responsibility/Mid-Missouri Chapter (collectively referred to as "Petitioners").¹ Also pending is the "Response of Licensee to Request for Hearing and Stay Pending Hearing," filed by the Curators of the University of Missouri (Licensee) on May 25, 1990 (Licensee's Response) and the "Reply Memorandum of Petitioners in Support of Request for Hearing and Stay Pending Hearing" (Petitioners' Reply), filed by Petitioners on June 12, 1990.²

II. BACKGROUND³

The University of Missouri (the "University") is a comprehensive public university consisting of four campuses at Columbia, Kansas City, Rolla, and Saint Louis. The Columbia campus is the largest and most comprehensive of the four campuses. It has an enrollment (Fall 1989) of 18,186 undergraduates and 6148 graduate and professional students.

The University of Missouri Research Reactor (MURR) is administered by the University's Office of Research. The MURR facility includes a 10-megawatt research reactor, which is the most powerful university research reactor and one of the five largest research reactors in the United States. It is located in the southwest portion of the Columbia campus in Research Park on a 550-acre tract of University-owned land.

The nearest residence to the facility is approximately 1/2 mile away. Within that half-mile radius, many people are present every day — including the Red Cross Mid-Missouri Blood Center, various athletic fields, a sports stadium, and university buildings. Within 1 mile, there is a University hospital and a Veterans Hospital. Within 2 miles is downtown Columbia, a city of 65,000 people.

The Licensee currently holds five licenses from the Nuclear Regulatory Commission (NRC) related to MURR. Reactor License No. R-103 authorizes Licensee to possess, operate, and use the 10-megawatt research reactor in accordance with the procedures and limitations set forth in the license. As part of this license, the Licensee is authorized to possess 20 kilograms of natural

¹ The "Designation of Presiding Officer," May 29, 1990, appointed me Presiding Officer pursuant to 10 C.F.R. §2.1207 (Subpart L) of the Commission's Regulations, "Informal Hearing Procedures for Materials Licensing Adjudications," published in the *Federal Register*, 54 Fed. Reg. 8269 (1989).

² A response was authorized by my unpublished Memorandum and Order of May 30, 1990.

³ These facts are taken from filings of both the parties. They are therefore based on representations and not on evidence.

uranium and 50 kilograms of depleted uranium in any form, 45 kilograms of uranium-235 contained in fuel or other sources, and 100 grams of plutonium-239 and 40 grams of plutonium-242 in sealed sources.

Two of the other NRC licenses held by the Licensee are Broad Scope Byproduct Material License No. 24-00513-32, which covers receipt, possession, use, and transfer of byproduct materials; Special Nuclear Material and Source Material License No. SNM-247, which covers receipt, possession, use, and transfer of by-product materials; and Special Nuclear Material and Source Material License No. SNM-247, which covers receipt, possession, use, and transfer of special nuclear materials and source materials.

Prior to the issuance of the recent amendments, these two licenses authorized, among other things, the possession and use of over 293 grams of plutonium in the form of sealed sources, 250 kilograms of natural uranium in any form, and 5 curies of americium-241 in sealed sources. Prior to the issuance of the recent amendments, the only authorization for possession of nuclear materials in unsealed form was 5 millicuries of neptunium and 40 millicuries of Americium.

There was no public notice of an application filed by Missouri University for these license amendments, and there has been no proposed finding of no significant hazards. The licensed project is expected to begin by the end of June 1990 and to be completed by the end of this summer.

On March 19, 1990, the NRC issued Amendment No. 12 to License No. SNM-247, and on April 5, 1990, the NRC issued Amendment No. 74 to License No. 24-00513-32. The amendment to License No. SNM-247 authorized the possession and use in unsealed form of 10 grams of plutonium-239/240 (710 millicuries) and it also permitted possession and use of 500 grams of depleted uranium (0.2 millicurie). The amendment to License No. 24-00513-32 increased the possession limits in unsealed form to 14 grams (10 millicuries) of neptunium-237 and 7 grams of americium-241 (25 curies).

Licensee obtained its license amendments in order to conduct a limited portion of the Transuranic Management by Pyropartitioning Separation (TRUMP-S) research project at the MURR facility. The ultimate objective of the overall TRUMP-S project, according to Applicant, is the safe and efficient removal (partitioning) of long-lived radioactive materials from spent nuclear fuel (this might improve the efficiency of disposing of high-level nuclear waste). Another objective, according to Petitioners, is to develop inexpensive means of separating transuranic elements (such as plutonium, americium, and neptunium) from spent fuel for recycle in breeder reactors.

The activities to be conducted by the Licensee are limited to pure elements (99% or better). The objective of the Licensee's component of the TRUMP-S project is to conduct basic scientific research on the thermodynamic, nuclear, analytical, and health physics aspects that are associated with such a project.

The Licensee will develop fundamental chemical and electrochemical data for rare earths and actinides in molten salt/cadmium systems.

The Licensee expects to accomplish its research with minimal inventories of the elements of interest (less than 75 grams of depleted uranium and less than 10 grams each of neptunium, plutonium, and americium). These elements will only be examined in their pure form and no spent nuclear fuel will be studied or used in the research.

III. TIMELINESS

Licensee's first amendment was granted on March 19, 1990, and the second on April 5, 1990. Intervenors assert, through affidavits of knowledgeable officials of the petitioning organizations that the earliest any members of the petitioning organizations had actual notice of the granting of the licenses was April 24, 1990. The petition was filed on May 10, 1990, or well within the 30-days filing limitation of 10 C.F.R. § 2.1205(c)(2)(i).

Applicant cited an article in *The Columbia Daily Tribune* of April 5, 1990,⁴ as having provided possible notice of the license amendment. However, the article states that "the facility has already altered its license from the Nuclear Regulatory Commission" and did not provide any indication that the altered license could be challenged. Under the circumstances, I accept Petitioners' representations that they did not have actual notice of any application of the University of Missouri for amendment of any NRC license. Therefore, I find the petition to be timely.

IV. STANDING

The regulations require me, at 10 C.F.R. § 2.1205(g), to:

determine that the requestor meets the judicial standards for standing and . . . [to] consider, among other factors —

- (1) The nature of the requestor's right under the Act to be made a party to the proceeding;
- (2) The nature and extent of the requestor's property, financial, or other interest in the proceeding; and
- (3) The possible effect of any order that may be entered in the proceeding upon the requestor's interest.

Thus, I am directed to apply judicial concepts of standing that apparently are identical to the concepts applicable in formal agency adjudication. As the

⁴ Licensee Response, Exh. A.

Hon. Morton Margulies stated in *Northern States Power Co. (Pathfinder Atomic Plant)*, LBP-90-3, 31 NRC 40, 41 (1990):

[F]or an organization to have standing it must show injury in fact to its organizational interests or to the interest of members . . . who have authorized it to act for them. Where the organization is depending upon injury to the interest of its members or sponsors to establish standing, the organization must provide with its petition identification of at least one member or sponsor who will be injured, a description of the nature of that injury, and an authorization for that organization to represent that individual in the proceeding. The injury in fact must be arguably within the zone of interests protected by statutes covering the proceeding.

In this case, Petitioners have alleged injury in fact to members who have authorized organizations to represent them, purportedly within the purpose of the organization. I shall consider each of these prongs of the standing test separately, beginning with representation and purpose — as the injury-in-fact test must be applied to members who authorize representation.

A. Representation and Purpose

In the Request, Petitioners alleged Missouri Coalition for the Environment's (Coalition's) members Henry Ottinger and Molly Moore reside and/or work within approximately 2 miles of the University of Missouri nuclear center where the TRUMP-S project is planned. In the Reply, Henry Ottinger filed a formal authorization for the Coalition to represent him in these proceedings. The purpose of Coalition is to preserve environmental values in Missouri.

In the Request, Petitioners alleged that at least 350 members of the Mid-Missouri Nuclear Weapons Freeze, Inc., (Freeze) live or work within approximately 2 miles of the University nuclear center. Five of the members are specifically named in the petition. In the Reply, four of them, including the director of the organization, filed a formal authorization for the Coalition to represent them in these proceedings. The purpose of the organization is not stated in the petition, thus raising a question concerning which of the areas of concern fall within the purpose of the organization.⁵ To clarify this important point, I will ask for a statement of the purpose of this organization before deciding whether to grant party status to the Freeze.

In the Petition, the Physicians for Social Responsibility/Mid-Missouri Chapter (Physicians) list three medical doctors who are members and who reside within approximately 2 miles of the University nuclear center. In the Reply, all

⁵ Both the name of the organization and my personal knowledge of the national Freeze organization suggest that its interest is limited to weapons and proliferation issues, but a local organization may have defined its scope differently in its by-laws or charter or through formally adopted resolutions.

three authorized Physicians to represent them. Although Physicians also has not disclosed its interest in this case, I take official notice that it is generally concerned both about nuclear weapons and the health effects of the use of nuclear materials. Hence, this case does fall within its purpose.⁶

I conclude that Coalition and Physicians have met both the representation and purpose tests. Freeze has met the representation test, but will be asked for a further representation before I can conclude which of the areas of concern may properly be considered to be related to its purpose.

B. Injury in Fact

1. The Legal Standard

I would note that it is easy to misunderstand this standard because the phrase "injury in fact" as used in this context does not bear its normal everyday meaning. For example, a person living 45 miles from a nuclear power plant who canoes in the general vicinity of the plant has been found to suffer "injury in fact" from an amendment of a power plant license in order to permit the expansion of the capacity of the spent fuel pool. *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 57 (1979).

Careful analysis reveals that, of course, the fuel pool was not even built at the time "injury in fact" was alleged. No accident had occurred. No release of nuclear materials had occurred. Hence, *in fact*, there had not been any injury to the petitioner as those words are commonly used. Nevertheless, he was said to have been injured in fact because of the possibility of an accident. Of course, this was an early stage of the case in which he had not yet proved that there was a possibility of an accident. All the petitioner had to do to obtain party status was to submit contentions whose subsequent proof would result in a finding of injury in fact to him. So: injury in fact is indeed the same, in this context, as an allegation that a real injury might reasonably be expected to occur in the future.

I would stress that petitioner need not *prove* that he will be injured in fact. What need be done is for him to demonstrate the basis for his reasonable expectation. It is for this reason, that I have not considered the detailed factual evidence offered to me by Licensee on this point in its "Motion for Leave to File an Answer to 'Reply Memorandum of Petitioners in Support of Request for Hearing and Stay Pending Hearing,'" June 15, 1990.

⁶I would expect the local chapter to correct me promptly if it differs from what I know national policy to be.

2. *Applicable Facts*

Each of the affected organizations has members who live within 2 miles of the licensed facility. The Reply presents an affidavit of a knowledgeable individual,⁷ Daniel O. Hirsch, who states (Reply at A17-18) that there may well be releases of radioactivity in excess of regulatory limits, even if there were an exclusion zone in excess of 1-2 miles, and that there may well be need for emergency action beyond 1 mile in the event of an accident involving a fire or explosion.

We find that Petitioners' showing of "injury" in fact far exceeds the requirements of Subpart L. Given the fact that these Petitioners have not had the right to obtain any information about TRUMP-S and that they are merely required to show "areas of concern," I would interpret Subpart L to require that the areas of concern show generally that there could be injury in fact. I certainly would not require a detailed showing of possible release fractions, such as might be expected in a formal evidentiary hearing rather than at this early phase of an informal adjudication.

I conclude that all three organizations have demonstrated injury in fact.

V. AREAS OF CONCERN

A. Regulatory Background

In reviewing the standards to apply to determining whether to admit "areas of concern," I find that I am indebted to my brother, Hon. Morton Margulies, for his excellent discussion in *Pathfinder*, LBP-90-3, *supra*, 31 NRC at 46-51. I particularly commend his discussion at 46-47, which I now quote:

The rules of practice for informal materials licensing adjudications provide in 10 C.F.R. § 2.1205(d)(3) that a requestor, in filing a request for a hearing, must describe in detail the requestor's areas of concern about the licensing activity that is the subject matter of the proceeding; and in section 2.1205(g) that in ruling on a request for a hearing, the presiding officer shall determine that the specified areas of concern are germane to the subject matter of the proceeding.

* * *

. . . The process requires that the requestor must enunciate its areas of concern and have them ruled upon to establish the right to a hearing, before the hearing file is first made available. [Footnote omitted.]

⁷ Among other accomplishments, Mr. Hirsch was asked by the Subcommittee on General Oversight and Northwest Power of the Interior Committee of the U.S. House of Representatives to assemble a panel of experts to inspect and review the safety of the Hanford N-reactor. The findings of this panel were subsequently confirmed by the National Academy of Sciences' panel on the DOE nuclear complex.

The Commission evidently recognized this handicap of requestors of only having limited information available to them before having to enunciate concerns and set a relaxed standard as to what would be sufficient to satisfy the regulations.

The Commission in its responses to comments for promulgating 10 C.F.R. Part 2, Informal Hearing Procedures for Materials Licensing Adjudications, stated:

This statement of concerns *need not be extensive*, but it must be sufficient to establish that the issues the requestor wants to raise regarding the licensing action *fall generally* within the range of the matters that properly are subject to challenge in such a proceeding.

54 Fed. Reg. 8272 (emphasis supplied).

It further stated:

Of course, the intervenor is required to identify the areas of concern it wishes to raise in the proceeding, which will provide the presiding officer with the *minimal* information needed to ensure the intervenor desires to litigate issues germane to the licensing proceeding and therefore should be allowed to take the additional steps of making a full written presentation under § 2.1233.

Id. (emphasis supplied).

The very phrase “areas of concern” suggests the kind of broad interpretation sought by the Commission. A petitioner need not even state concerns. Just areas of concern. Furthermore, this latitude makes great sense in the regulatory scheme because the reward for being admitted as a party is slim. First, you get to see the case file — a group of documents that ought generally to be available to the public but that provides the first official information about the case. Then, you get to file a written presentation, pursuant to 10 C.F.R. § 2.1233(a). There is no discovery. 10 C.F.R. § 2.1231(d).

B. Areas of Concern

1. Area of Concern Number One

Petitioners have obtained a one-page “Fire Procedure,” dated March 22, 1990. They were concerned about the adequacy of fire procedures for TRUMP-S before they obtained this procedure. They are more concerned now. This concern about fire procedures is germane to a proceeding concerning authorization to possess nuclear materials in unsealed sources. This area of concern is admitted.

2. Area of Concern Number Two

Petitioners are concerned that “there is no buffer zone to reduce doses to the public in case of an accident.” This area of concern is germane to the possession of unsealed sources in an active area of a university campus in which many

activities occur within one-half mile of the site of the proposed experimental activity. This area of concern is germane to the proceeding and is admitted.

3. Area of Concern Number Three

Petitioners are concerned that the administrative controls necessary for safely conducting TRUMP-S may need to be far more stringent than for materials previously handled by the University of Missouri and that some of the procedures and controls may not even have been written. This area of concern is germane to this proceeding and is admitted.

4. Area of Concern Number 4

Petitioners are concerned that Licensee's reliance on its emergency plan of July 12, 1984, is not appropriate for the nature of the project it is undertaking and that there are no adequate emergency procedures. They do not think that previous procedures are adequate for the new activities. In particular, some of the hospital facilities being relied on are thought to be too close to the site of the experiment. This area of concern is germane to this proceeding and is admitted.

5. Area of Concern Number Five

Petitioners are concerned that an environmental assessment and environmental impact statement must be prepared as: (1) there is no applicable categorical exclusion in 10 C.F.R. § 51.22(14)(v); and (2) TRUMP-S project environmental impacts may be significant and the NRC has failed to explain why they will not be. (*Citing Jones v. Gordon*, 792 F.2d 821 (9th Cir. 1986).)

Although Petitioners have presented an extensive legal argument, I have not considered the merits of their presentation. It is enough at this time for me to conclude that this area of concern is germane to this proceeding and that, therefore, the area of concern is admitted.

6. Area of Concern Number Six

Petitioners seem to acknowledge that this area of concern, dealing with nuclear proliferation, is different from their other areas of concern. They do not even state why this concern is germane. Reply at 14-15. Instead, they argue "the public interest." I am not persuaded. In particular, there is no reason

to admit an area of concern for the purpose of permitting an intervenor to make public-interest arguments that are truly relevant to its other concerns.⁸

If this project is permissible under the laws and regulations of the United States, it must be authorized by me — and arguments about effects on proliferation are irrelevant. It is not relevant or proper for me to consider what effect authorization of this project might have on nuclear proliferation unless it is in violation of some law or treaty.⁹ Since no law or treaty has been suggested to me as applicable, I find that this area of concern is not germane to this case and it is not admitted.

7. *Area of Concern Number Seven*

Petitioners are concerned that the responsibilities of personnel have not been pinned down. They are particularly concerned about the role of the personnel of Rockwell International, Inc., which will have resident personnel in Columbia and has provided equipment and contracted for the project. This area of concern is germane to this proceeding — as the Licensee must be clearly in charge of all work under its license. Hence, this area of concern is admitted.

VI. REQUEST FOR A STAY

A. Petitioners' Argument

Petitioners argue that § 189(a) of the Atomic Energy Act of 1954 (AEA), 42 U.S.C. § 2239(a)(1), requires that the NRC grant a hearing upon the request of any interested party in any proceeding for the granting, suspending, revoking, or amending of any license. The section states, in pertinent part:

In any proceeding under this Act, for the granting, suspending, revoking or amending of any license or construction permit, . . . the Commission *shall grant a hearing* upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding. [Emphasis added.]

Petitioners then cite *Sholly v. NRC*, 651 F.2d 780, 788 (D.C. Cir. 1981) for the proposition that — prior to the 1983 amendment to § 189(b), the “Sholly Amendment” — the Commission could not issue a *contested* license amendment before completing a hearing. *Sholly* states:

⁸ Concerns about proliferation seem to me to be highly unlikely to be relevant to any of the other concerns.

⁹ Although Petitioners assert that the amendment is “inimical to the common defense and security,” citing AEA, § 57, 42 U.S.C. § 2077(c)(2); 10 C.F.R. § 70.31(d), I see nothing in these general provisions that would support a finding that this project is illegal.

An interpretation of section 189(a) that would permit the NRC to issue a *contested* license amendment without a hearing would enlarge section 189(a) beyond the scope originally intended.

Petitioners then argue that the legislative history of the Sholly Amendment shows that it authorized the Commission to dispense with a hearing only in issuing operating licenses. In particular, Petitioners state that the NRC sought and was denied an amendment that would have permitted it to make *any* license immediately effective, prior to the holding of a requested hearing, if it made appropriate prior findings. They cite H.R. 97-22, Pt. 2, p. 25 (1981) as the source of the text of the following proposal, introduced for the NRC as S. 913:

The Commission is authorized to issue and to make immediately effective an amendment to a license upon a determination by the Commission that the amendment involves no significant hazards consideration The Commission is authorized to issue and to make immediately effective any amendment to a license . . . as it may deem necessary upon a determination that immediate effectiveness is required to protect the public health, safety and interest, or the common defense and security.

Petitioners argue that the Sholly Amendment rejected the NRC's plea to be able to issue any license prior to completing a hearing and restricted its scope only to operating licenses. The current text of § 189(b), which supports this interpretation, states:

The Commission may issue and make immediately effective any amendment to an operating license, upon a determination by the Commission that such amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person. Such amendment may be issued and made immediately effective in advance of the holding and completion of any required hearing. . . .

Furthermore, Petitioners argue that it is appropriate that the immediately effective rule be restricted to operating license cases, as it is the second step of a licensing process for nuclear power reactors, and notices, hearings, and environmental reports have already been available during the construction permit stage of the proceeding. They argue that a materials license is a one-step process and that dispensing with a prior hearing is inappropriate because it would eliminate all opportunity for the application of procedural safeguards to the materials license proceeding.¹⁰

¹⁰ Petitioners also argue that the proposed Senate bill, S. 1207 included a provision for extending the authority to dispense with hearings for materials licenses but that this provision was deleted during reconciliation with House Bill, H.R. 2330.

Petitioners then state that:

Outside of the limited exemption granted by the Sholly Amendment, AEA § 189 has been confirmed as requiring a hearing in all licensing proceedings by appellate courts which have considered the question. See, e.g., *Union of Concerned Scientists v. NRC*, 735 F.2d 1437 (D.C. Cir. 1984); *Lorion v. NRC*, 712 F.2d 1472 (D.C. Cir. 1983), *reversed on other grounds*, 470 U.S. 729; *Bellotti v. NRC*, 725 F.2d 1380 (D.C. Cir. 1983); *NRDC v. NRC*, 606 F.2d 1261 (D.C. Cir. 1979). There is no precedent for unilateral, unfettered issuance of a license or amendment by Staff, particularly one which totally usurps the function of the Presiding Officer in a contested licensing proceeding, thereby making the hearing process meaningless.

And Petitioners point out that even the Sholly Amendment requires that there be a no significant hazards consideration. 42 U.S.C. 2339(a)(2)(C); 10 C.F.R. § 50.92.¹¹

Petitioners concede that the NRC may hold informal hearings in materials licensing proceedings. *City of West Chicago v. NRC*, 701 F.2d 632 (7th Cir. 1983). But they make what I consider to be a direct challenge to the validity of 10 C.F.R. Part 2, Subpart L, § 2.1205(l), which provides:

The filing or granting of a request for a hearing or petition for leave to intervene need not delay NRC staff action regarding an application for a licensing action covered by this subpart.

B. Licensee's Argument

Licensee argues that the Commission has clearly stated that it is permitted to issue materials licenses before contested hearings are completed. It cites § 2.1205(l), which was just quoted above, and it relies on the following citations of Commission intention in the *Federal Register*:

the Act says nothing specific about whether such a hearing requested by an interested person must be completed prior to agency action granting or denying a materials license.

52 Fed. Reg. at 20,090.

¹¹ Petitioners further cite *Union of Concerned Scientists*, *supra*, 735 F.2d at 1443, for the proposition that the NRC Staff may not remove from the licensing hearing process "consideration of evidence that it considers relevant to a material issue in the section 189(a) process, as it has defined that issue." However, I do not understand the relevance to our case. The Staff action does not remove any issue from this case. (It may make the whole matter moot because of the difficulty of completing the litigation before the project is completed; but no issue is removed.)

[Subpart L] . . . certainly contemplate[d] that when the staff is able to reach a positive conclusion about the safety and environmental consequences of a proposed licensing request, it will take action despite a pending hearing.

54 Fed. Reg. at 8773; 52 Fed. Reg. at 20,090.

[In materials license cases] . . . a precensing hearing is not necessarily required.

52 Fed. Reg. at 20,090.

The Commission continues to believe that its present practice regarding Federal Register notice for materials licensing applications comports with all applicable legal requirements and, under the circumstances, is appropriate in terms of the allocation of agency resources. As noted in the proposed rule, the Atomic Energy Act does not require that any notice be given of a materials licensing action. Given the lack of any constitutional right to a hearing in the usual materials licensing case, *see West Chicago* at 645, the Commission does not agree with the argument that there is a general constitutional right to notice of the opportunity for such a hearing. [Footnote omitted.]

54 Fed. Reg. at 8270-71 (Feb. 28, 1989).

Licensee argues that in materials licensing cases, the agency must weigh the right of the applicant to a reasonably prompt determination against the right of others to challenge the requested licensing action. Also important in this balance is the governmental interest in avoiding delay:

heightened by the fact that the agency reviews and processes literally thousands of materials license applications each year. *Kerr McGee Corp.*, 15 NRC at 261. Finally, it is significant that the materials involved in the vast majority of cases, when compared to power reactors, involve substantially less hazard. *Id.* at 262.

52 Fed. Reg. at 20,090.

Another argument is that Petitioners seem primarily to have addressed themselves to hearing rights for hearing requests filed *prior* to the issuance of an amendment. In this case, Licensee points out that the request came after the issuance of the amendment, so no "prior" hearing is possible. They further state that:

Nothing in the AEA requires the NRC to provide notice prior to issuance of an amendment to a materials license. The last three sentences of section 189a(1) of the AEA refer to prior notices for issuance of construction permits or operating licenses or amendments thereto, but do not apply to materials licenses or amendments thereto. The last sentence (part of the Sholly Amendment) permits the NRC to dispense with such notice if an operating license amendment "involves no significant hazards consideration," but such exemption is both irrelevant to and unnecessary in the case of an amendment to a materials license.

I also note that Licensee disagrees with Petitioners' recital of legislative history and that it has requested an opportunity to brief its arguments. "Motion for Leave to File an Answer to 'Reply Memorandum of Petitioners in Support of Request for Hearing and Stay Pending Hearing,'" June 15, 1990, Appendix B at 5. It is my conclusion that Licensee should have that right *prior* to any decision that relies on this argument; Petitioners' argument is new and Licensee has not had an opportunity to respond, as it in fairness ought.

C. Conclusion

1. Challenge to the Regulations

There is no dispute that a person who challenges an application for amendment of a materials license is entitled to a hearing. Such a hearing may, of course, be informal in nature. *West Chicago v. NRC*, 701 F.2d 632 (7th Cir. 1983).

In this case, a materials license was amended by the Staff without any prior public notice. Furthermore, the licensed project is scheduled to begin using nuclear materials soon and to conclude by the end of the summer. Hence, unless a stay is granted, Petitioners will be exposed to the risks they fear during a substantial portion of the pendency of this case; and there is some possibility that *almost all* or *all* of the work under the license may be completed before the case is. Under these special circumstances, there is a serious question whether Petitioners are being effectively deprived of their rights to a hearing.

Petitioners in this case have argued, citing persuasive legal precedent, that they have a right to a hearing prior to the effectiveness of a license. Licensee responds that neither the AEA nor the Commission's regulations require hearings or even notice prior to Staff issuances of amendments to materials licenses.

I find that Licensee is correct in arguing that the Commission's regulations and prior practice do not appear to contemplate prior notice or hearings in all cases. 10 C.F.R. §§ 2.103, 2.104, 2.1205(1); *West Chicago, supra*, 701 F.2d at 638 n.3. Hence, Petitioners' argument is a challenge to the Commission's regulations and — even if it may have merit — it is beyond my purview. 10 C.F.R. § 2.1239(a).

The only open avenue when a regulation is challenged is 10 C.F.R. § 2.1239(b),¹² which provides for certification because "special circumstances exist." If Petitioners choose to use this avenue, then they should file promptly.

¹² Although it is not entirely clear from the face of the regulation whether the procedural rules of the Commission are covered by the phrase, "any regulation of the Commission issued in its program for the licensing and regulation of . . . special nuclear material," I conclude that it is appropriate to prohibit any challenge to a procedural regulation that affects the issuance of special nuclear material licenses.

2. *Authority to Issue a Stay*

Even though Staff action is authorized under 10 C.F.R. § 2.1205(I), the Presiding Officer may still issue a stay pursuant to 10 C.F.R. § 2.1263. Petitioners have complied with the requirement that they include their request for a stay in their request for a hearing. This procedure for requesting a stay appears to be the Commission's resolution of the question of whether or not there is an absolute right to a hearing before the license is issued. Under the regulations, there is no such absolute right, but the licensed activity may be stayed if the criteria for a stay are met.

The criteria governing issuance of a stay are set forth in 10 C.F.R. § 2.788(e) and are:

- (1) Whether the moving party has made a strong showing that it is likely to prevail on the merits;
- (2) Whether the party will be irreparably injured unless a stay is granted;
- (3) Whether the granting of a stay would harm other parties; and
- (4) Where the public interest lies.

Pursuant to § 2.1237(b), the burden of proof to show the grounds for a stay is on the movants — the Petitioners. *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 2), ALAB-914, 29 NRC 357, 361 (1989); *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-395, 5 NRC 772, 785 (1977).

I will discuss each of the stay criteria separately.

a. *Likelihood of Success on the Merits*

Although Petitioners have demonstrated the relevance of their areas of concern, their evidence is not assembled in such a form that I could be persuaded of a likelihood of success on the merits. On the other hand, Petitioners have not seen many of the key documents and I also have not seen any of them.

I am not prepared to act on this aspect of the stay motion until I have seen the application, any related safety evaluation report that may have been prepared,¹³ and the Staff documents issued along with the license.

Petitioners' filings at this point, given that they have not had formal access to any information, are impressive but do not carry the burden of proof on likelihood of success on the merits.

¹³ The Reply, at 8 n.2, reports that Licensee on June 6, 1990, told Petitioners, "There is no SAR."

b. Irreparable Injury

In this instance, Petitioners have filed an expert opinion that there is a serious risk from TRUMP-S, in excess of the risks estimated by the University of Missouri. Reply at A15 to A22. On the other hand, Licensee has filed its own expert testimony, which states that under no circumstances can the TRUMP-S program cause personal injury to any member of the general public, or cause damage to their property, or result in an accident requiring evacuation of any home or workplace other than MURR. Motion for Leave to File an Answer, Attach. A.

At this point, given the lack of information at their disposal, Petitioners have not carried their burden on this point. They have not demonstrated that their alleged injury is "both certain and great." *Three Mile Island*, ALAB-914, *supra*, 29 NRC at 361.

c. Harm to Other Parties

The University of Missouri will be harmed by the issuance of a stay because its TRUMP-S research would be delayed, with accompanying loss of income and delay in the acquisition of useful knowledge, for individual students, the staff of the MURR facility, faculty, and students at the University of Missouri. The summer months are particularly important because of the availability of personnel during this time period.

This factor weighs in favor of Licensee.

d. Where the Public Interest Lies

If the TRUMP-S project is safe, it can acquire information of importance to the public interest, related to the removal of long-lived radioactive materials from spent nuclear fuel. At this stage of the project, basic scientific research is being done on thermodynamic, nuclear, analytical, and health physics aspects of the project. The acquisition of knowledge is, generally, in the public interest. (I note that a variety of individuals and elected officials have permitted their views to be submitted to me in support of their view that this project is in the public interest.)

Petitioner's principal argument is that the site is wrong for this project because it unnecessarily exposes people to a risk of exposure to ionizing radiation due to their not being any exclusion zone around the project. However, they have not yet demonstrated the extent of the danger to these individuals, so there is no basis for finding that they have carried their burden on this point.

3. Conclusion

I have concluded that in order to do justice, it is not yet appropriate to rule on the Motion for a Stay, which was required to be submitted with the application (10 C.F.R. § 2.1263), at a time when adequate information is not available to the Petitioners.

For the purpose of scheduling, I inquired of Licensee's attorney by telephone at 2:10 p.m. on June 15, 1990, when it would begin the portions of TRUMPS that use nuclear materials. He stated that it plans to use depleted uranium beginning on June 18. That phase will take about 3 weeks, followed by 3 weeks with neptunium and then 3 weeks with plutonium.¹⁴

It is extremely important, in the interest of justice, that expedited procedures be developed to permit Petitioners to have access to the information they need to make an informed argument concerning their motion for a stay and their case. It is particularly important that they have adequate information in advance of the use of plutonium, which is their principal concern.

The Appeal Board has earlier ruled that a Presiding Officer may not ask questions of the parties (or, impliedly, ask that documents be produced);¹⁵ however, it is clear that some route must be found to expedite this case in the interest of justice. Hence, I have decided to ask the Staff to file a complete hearing file, including all official documents relevant to any of the admitted concerns, by June 30, 1990. This is pursuant to my authority to regulate the course of the proceeding. 10 C.F.R. § 2.1209(a).

VII. COOPERATION OF PARTIES REQUESTED

Despite the signs of acrimony in some of the filings, I was pleased to learn that Licensee has voluntarily shared some information with Petitioners. It is my belief, from reading the filings, that there are intense feelings on both sides but that people of good will are involved. Under the circumstances, I urge further meetings to make agreements on sharing information, on scheduling and on possible stipulations.

Obviously, if a schedule can be agreed to in which an early determination can be reached, the need for a stay will be lessened. Also, if full information can be shared, there is an increased chance that this case could be determined in an atmosphere of mutual respect.

My full cooperation can be expected in support of all efforts to expedite this case. I am prepared to mediate at public sessions or to have a separate settlement judge appointed. I will schedule oral argument. Upon the stipulation of the

¹⁴ The information concerning neptunium and plutonium were furnished by a return telephone call at 2:29 p.m.

¹⁵ *Rockwell International Corp.* (Rocketdyne Division), ALAB-925, 30 NRC 709 (1989).

parties, I am prepared to recommend procedures other than those authorized under Subpart L. 10 C.F.R. § 2.1209(k).

I respectfully request the cooperation of the parties and of the Staff, in the interest of a fair and efficient resolution of this case.

Order

For all the foregoing reasons and upon consideration of the entire record in this matter, it is this 15th day of June 1990, ORDERED, that:

1. The petitions of the Missouri Coalition for the Environment (Coalition) and of Physicians for Social Responsibility/Mid-Missouri Chapter (Physicians) are granted. Each is a party to this case.

2. Action on the petition of the Mid-Missouri Nuclear Weapons Freeze, Inc., is deferred. It shall file by June 22, 1990, a statement of its purpose.

3. Areas of Concern 1, 2, 3, 4, 5, and 7 are admitted.

4. Action on the request for a stay is deferred. Intervenors may renew this request at a time when adequate information is available to them and to the Board for a reasonable decision to be reached.

5. The Staff of the Nuclear Regulatory Commission is respectfully requested to serve the hearing file in this case by June 30, 1990.

Respectfully ORDERED,

Peter B. Bloch, Presiding Officer
ADMINISTRATIVE JUDGE

Bethesda, Maryland

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD PANEL

Administrative Law Judge:

Morton B. Margulies

In the Matter of

Docket No. 30-05004-MLA
(ASLBP No. 90-599-01-ML)
(Byproduct Material License
No. 22-08799-02)

NORTHERN STATES POWER
COMPANY

(Pathfinder Atomic Plant)

June 21, 1990

MATERIAL LICENSING ADJUDICATIONS

Unilateral withdrawal of request for hearing, which formed the sole basis for granting a hearing on an application to amend a byproduct material license to decommission power reactor buildings, removes all justiciable issues before the Presiding Officer and brings the proceeding to an end.

ORDER TERMINATING PROCEEDING

South Dakota Resources Coalition (SDRC) filed a Notice of Withdrawal, dated June 15, 1990, in the captioned proceeding, by which it withdrew its Request for Hearing dated September 22, 1989, and its Supplement to Request for Hearing dated November 17, 1989.

The Notice of Withdrawal was filed following discussions between Licensee, Northern States Power Company, and SDRC by which an agreement was reached resolving the issues identified by SDRC. The agreement was not submitted for approval and the terms of the agreement are not known to the Presiding Officer.

It was solely on the basis of the SDRC petitions that a hearing was granted on the application of NSP to amend its byproduct material license to decommission buildings of the Pathfinder Atomic Plant. With the withdrawal of the petitions, there remains no justiciable issue before the Presiding Officer.

Had the settlement been submitted to the Presiding Officer, under 10 C.F.R. § 2.1241, it would have had to be approved by the Presiding Officer in order for the settlement to be binding in the proceeding. The unilateral withdrawal by SDRC eliminates action by the Presiding Officer under the section.

Considering the foregoing, the matter has been brought to an end. The proceeding is terminated.

It is so ORDERED.

Morton B. Margulies, Presiding
Officer
ADMINISTRATIVE LAW JUDGE

Bethesda, Maryland
June 21, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ivan W. Smith, Chairman
Dr. Richard F. Cole
Dr. Kenneth A. McCollom

In the Matter of

Docket Nos. 50-443-OL
50-444-OL
(ASLBP No. 82-471-02-OL)
(Offsite Emergency
Planning Issues)

PUBLIC SERVICE COMPANY OF
NEW HAMPSHIRE, *et al.*
(Seabrook Station, Units 1
and 2)

June 27, 1990

MEMORANDUM AND ORDER
(Following Prehearing Conference)

BACKGROUND

On June 5, 1990, pursuant to notice,¹ the Licensing Board conducted a prehearing conference to consider the resolution of certain issues pending before it. The issues relate to (1) time estimates for preparing nonambulatory patients on advanced life support systems in the Seabrook emergency planning zone for evacuation and (2) shelter for visitors to the Seabrook area beaches when, in the face of a prognosis of decreasing ability to mitigate a radiological emergency

¹ Notice of Prehearing Conference, May 4, 1990 (published at 55 Fed. Reg. 19,686 (May 10, 1990)).

at the Seabrook Station, evacuation of beach visitors is not possible because of physical impediments to evacuation such as weather and highway conditions. These issues are among those remanded to the Licensing Board by a decision of the Atomic Safety and Licensing Appeal Board in ALAB-924, 30 NRC 331 (1989).²

In addition, ALAB-932, issued May 31, 1990, remanded a requirement that the Licensees "incorporate within the appropriate ETE calculations the number of vehicles hidden from aerial observation." 31 NRC 371, 419. The remanded ETE issue was also discussed at the prehearing conference.

The Attorney General of Massachusetts represented himself and the New England Coalition on Nuclear Pollution. Also participating were the Licensees, the NRC Staff, the Federal Emergency Management Agency (FEMA), and the State of New Hampshire.

ADVANCED LIFE SUPPORT PATIENTS

In LBP-90-12 the Board identified candidate ALS patient issues to be resolved. 31 NRC at 438-39. They include the following issues set out by the Appeal Board in ALAB-924, by the Commission in CLI-90-3, and respective subissues identified by this Board: (1) How long does it take to efficiently prepare an ALS patient for transportation? (2) Would preparation of patients at an early initiating condition, e.g., declaration of an alert, or at an order to evacuate, be medically appropriate? (3) How many ALS patients are there in the EPZ? Where are the ALS patients? Only at Exeter and Portsmouth Hospitals? (4) Would uncertainties in the times available to prepare ALS patients for evacuation produce ETEs that are too inaccurate to be useful in the selection of protective action options?

The Board also noted Intervenor's argument that ALAB-924 (30 NRC at 352 n.71) requires a finding that the NHRERP is inadequate in the absence of individualized special-facility planning. We ruled that the cited footnote requires nothing of that sort. Rather, it is an observation by the Appeal Board as to a use to be made of any correction in the estimated preparation time for ALS patients. LBP-90-12, 31 NRC at 439.

The parties explained to the Board that issue (4), *supra*, could be understood to relate to ETEs for the entire Emergency Response Planning Area (ERPA). Alternatively, it could be understood to relate to the ETEs for the ALS patients on a facility-specific basis. A consensus emerged that the issue should be framed

² These issues were discussed in detail in LBP-90-12, Memorandum and Order (Ruling on Certain Remanded and Referred Issues) (May 3, 1990), 31 NRC 427. The second issue, impediments to evacuation, relates to "condition (2)" for sheltering as discussed in ALAB-924 and LBP-90-12.

in the context that ETEs for ALS patients are useful for selecting the appropriate protective action for them. In defining issue (4) the Board had no thought that ETEs for an entire ERPA would be determined by the ETEs for ALS patients in the event the former do not envelop the latter. Rather the information would be available to anyone finding it useful, and it is more likely that hospital personnel would use ETEs for ALS patients. Tr. 28,412-23.

Moreover, to the extent that ETEs for ALS patients are useful to the medical personnel at specific hospitals, Intervenor's demand that "each special facility shall be treated on an individual basis" tends to be satisfied.³ In any event, the Board does not foreclose further consideration of protective action options for specific facilities with ALS patients in the forthcoming summary disposition process. Tr. 28,426.⁴

The Board set a schedule for the consideration of summary disposition pleadings on the ALS issues. Only the Licensees intend to file such a motion, but the NRC Staff may participate in the process by supporting Licensees' motion. Tr. 28,441.

Licensees will file their motion by June 26, 1990.

NRC Staff will file any supporting pleading by July 17. However, the NRC Staff will notify Intervenor's by July 10 whether it intends to file anything.

In the event the NRC Staff notifies Intervenor's on July 10 that it does not intend to file a pleading, Intervenor's will file their answer to Licensees' motion by July 24. However, if the NRC Staff files a pleading, Intervenor's will file their answer to both pleadings by July 31, 1990.

SHELTERING

Following the issuance of LBP-90-12, the State of New Hampshire provided further information concerning any provisions of the NHRERP for "actual sheltering" of the summer beach population under condition (2).⁵ The State explained that it agrees with this Board's analysis of the condition (2) scenario as set out in LBP-90-12 and that:

³ Tr. 28,421-22. See ALAB-924, 30 NRC at 352 n.71.

⁴ Intervenor's agree that the four issues set out above, and as discussed at the conference, are adequate in scope to cover their concerns providing that the Board's discussion of the ALS issue in LBP-89-33 (30 NRC 656, 667-70) does not control the outcome. Tr. 28,433-35. Also we understand that the Intervenor's are still pursuing the fifth issue, i.e., whether "each facility shall be treated on an individual basis." The Board will decide the issues based upon ALAB-924, CLI-90-3, the existing record, and the record developed in the remanded proceeding.

⁵ Memorandum of the State of New Hampshire Regarding Licensing Board Consideration of Remanded Issues, May 31, 1990. In the memorandum to this Board, the State incorporated its advice to the Appeal Board on the sheltering issue: Comments of the State of New Hampshire Regarding NHRERP Sheltering and LBP-90-12, May 28, 1990. Our references are to the May 28 Comments.

In this vein, New Hampshire retains the shelter-in-place concept as an option not precluded under the Condition 2 scenario so that emergency management officials may have a starting point if faced with an unforeseen need to identify some ad hoc protective response *outside of the plan*. With that said, however, the State reiterates that the NHRERP does not provide for "actual sheltering" as a planned response to Condition 2; nor should emergency planners be required to amend the plan to include such a provision given that the probability for occurrence is but a fleeting glimmer, greater in size in the context of litigation than in reality. [Emphasis in original.]

Comments at 3.

At the prehearing conference, the condition (2) sheltering issue, *as defined by the Licensing Board*, evaporated. The Intervenor agree with this Board's analysis of the condition (2) scenario in LBP-90-12. Tr. 28,328, 28,329-30. That scenario would occur when weather and roadway conditions attract a large beach population followed without notice by weather and roadway conditions preventing evacuation. We stated that such a situation is very difficult to envision. LBP-90-12, 31 NRC at 449, 453.

Indeed, Intervenor state that such a scenario is absurd; that, following *reductio ad absurdum* reasoning, the NHRERP and the remanded issue before the Board clearly contemplated another scenario as condition (2). Tr. 28,330. Instead of weather and roadway conditions, Intervenor assert that the aspect of condition (2) remaining in controversy pertains to local conditions of population density and distribution deemed to be constraints on evacuation. Intervenor rely upon earlier editions of the NHRERP that group "population density and distribution" with weather and roadway conditions among the local constraining conditions to be considered in protective action decisionmaking.⁶

Intervenor's view of condition (2) very closely resembles condition (1) as the issue was addressed by the Appeal Board:

Indeed, [Applicants' emergency planners] could conceive of only one situation in which [sheltering] would be applicable under condition (1) to achieve a "maximum dose reduction": a short duration, nonparticulate (gaseous) release that would arrive at the beach within a relatively short time period when, because of a substantial beach population the evacuation time would be significantly longer than the exposure duration.

ALAB-924, 30 NRC at 364.

As can be seen, Intervenor's own account of its version of condition (2), "large beach populations with very long evacuation times" (Tr. 28,330), is precisely one of the essential elements referred to by the Appeal Board in defining the condition (1) issue as cited above.

⁶ Memorandum of Intervenor in Response to Licensing Board Order of May 4, 1990, May 29, 1990, at 11, Exhibit 1 and Exhibit 2. Tr. 28,330-32.

Intervenors concede as much, acknowledging that their view of condition (2) "really collapses into condition (1)." Tr. 28,331-32.

Intervenors' construction of condition (2) is one of its own making. It finds no support in the Partial Initial Decision on the NHRERP (LBP-88-32), in LBP-88-3, or in ALAB-924. In fact, in defining the three conditions for sheltering the Appeal Board specifically noted that "Planning officials consider /physical' impediments under condition (2) to include fog, snow, hazardous road and bridge conditions, and highway construction." ALAB-924, 30 NRC at 364 n.133.

The ultimate point of Intervenors' argument, we infer, is that the NHRERP, despite all that the State of New Hampshire and FEMA have said to the contrary, does in fact contain provisions for actual sheltering of the general beach population. Therefore, their argument goes, pursuant to the remand order, the plan must therefore provide appropriate implementing detail. In essence, Intervenors are disputing the Board's decision in LBP-90-12 denying their motions to reopen the record on the sheltering issues.

In any event, even the slim reed upon which their argument depends has snapped. The NHRERP now omits population density as one of the evacuation constraints, leaving only natural weather and manmade roadway impediments — as Intervenors now acknowledge. Tr. 28,333-35.⁷

The Appeal Board has not ruled that the NHRERP *must* provide for sheltering the general beach population. Rather the discussion in ALAB-924 assumed that actual sheltering of that population was a part of the plan. Specifically the Appeal Board stated that "we find that [implementing] measures are required so long as sheltering for the beach population is a protective action option under the NHRERP." 30 NRC at 368.

It is now clear that there is no provision in the NHRERP for actually sheltering the general beach population other than the "shelter-in-place" concept. Accordingly, we conclude that the remanded sheltering issue has been resolved. No further proceeding on the sheltering issue is planned. In addition, because of the clarification provided by the State of New Hampshire and FEMA concerning the provisions of the plan, this Board no longer requires guidance from the Appeal Board as requested in LBP-90-12, 31 NRC at 453-55. We recommend that the respective referrals, having since been accepted by the Appeal Board, be vacated.

⁷ The plan amendment referred to in the cited colloquy apparently related to a February 1990 amendment to Revision 3 of the NHRERP. Compare Section 6.4, Vol. 8/Rev. 3 attached as Exhibit 2 to Intervenors' Memorandum of May 29, 1990, with Section 6.4, Vol. 8/Rev. 3 2/90, transmitted by a letter from Ted C. Feigenbaum, New Hampshire Yankee, to USNRC, dated February 5, 1990. The term "population density and distribution" appears in the Exhibit 2 version but does not appear in the February 1990 version.

INTERIM PROTECTIVE MEASURES

In the Memorandum Supplementing LBP-88-32,⁸ this Board accepted ALAB-924 as being based upon a valid construction of the NHRERP. We represented that the concerns expressed by the Appeal Board in the remand decision could be resolved prior to the arrival of large beach populations in July 1990. 30 NRC at 671-72. In its immediate effectiveness review of LBP-89-32, authorizing the Seabrook operating license, the Commission noted that representation and stated that incorporation of implementing detail would not be especially difficult or time consuming.⁹

ALAB-924 is still the law of this proceeding and this Board remains subject to its directives. We have determined that no sheltering issues remain for litigation before us, and that the remand order has now been satisfied. However, the integrity of the NRC hearing process requires, in our view, interim measures to assure that the substantive intent of ALAB-924 and CLI-90-3 not be thwarted pending review of our respective decisions on appeal. Therefore we invited and received the voluntary cooperation of the State of New Hampshire, FEMA, Licensees, and the NRC Staff to assure that a protective action decision to shelter the general summer beach population can be made and implemented if, against all real probability, actual sheltering is required to achieve maximum dose savings for that population.

The State of New Hampshire will assure that its protective action decision-makers are all currently trained in the subtleties and nuances of the benefits to be gained or lost in selecting a sheltering option for the general beach population. Such assurance will also demonstrate that the New Hampshire decisionmakers are fully informed with respect to the sheltering issues litigated in this proceeding. The State agreed to submit its documentation to FEMA by June 13. FEMA agreed to submit its assessment of the State's readiness to the NRC by June 20 and the NRC Staff agreed to respond to FEMA's assessment and forward the resulting package back to New Hampshire with service on the parties by June 22. Tr. 28,388-89, 28,392-93, 28,399-403, 28,407-08. This has been accomplished.¹⁰

Licensees have committed to prepare an interim plan and EBS message to implement the sheltering option when evacuation of the general summer beach population is impossible because of physical impediments. The interim plan

⁸ LBP-89-33, 30 NRC 656 (1989).

⁹ CLI-90-3, 31 NRC 219, 247-48 (1990).

¹⁰ See Letter from Mitzie A. Young, Counsel for NRC Staff to Members of the Licensing Board, June 22, 1990, enclosing (1) letter from Grant C. Peterson, Associate Director, FEMA, to James M. Taylor, NRC EDO, June 19, 1990, and (2) letter from George L. Iverson, Director, New Hampshire Office of Emergency Management, to Richard H. Strome, Director, FEMA Region One, June 14, 1990. New Hampshire and FEMA have made a very strong and effective response to the Licensing Board's proposal.

and EBS message will become a part of the Seabrook Station onsite plan and will be held in readiness to offer to the State of New Hampshire if required. Tr. 28,388, 28,393, 28,408-09. The NRC Staff has agreed to review Licensees' interim plan. Tr. 28,399. Licensees will submit the interim plan to the NRC Staff no later than June 26.¹¹ Licensees' obligation under this commitment will expire on September 15, 1990.

ETEs AND HIDDEN VEHICLES

ALAB-932, issued May 31, 1990, 31 NRC 371, remanded a requirement that the Licensing Board direct the Licensees to "incorporate within the appropriate ETE calculations the number of vehicles hidden from aerial observation as set forth in the Board's findings in ¶ 9.120 of its decision." *Id.* at 419.

In our Finding 9.120 we found, as the Appeal Board noted, that, on a reasonably busy beach day, about 2000 vehicles would not be observable "in vertical aerial photos because they are in under-building parking areas, garages, and carports." We then added the 2000 vehicles to the 30,800 thought to be present in other observations to arrive at a total of 32,800 vehicles likely to be present in the beach areas on July 18, 1987. LBP-88-32, 28 NRC 667, 801 (1988).

Then, in Finding 9.122 (*id.* at 802), without explanation, we accepted 31,000 vehicles, the number advanced by the Staff, as the appropriate number of vehicles for a reasonably expectable peak occupancy in arriving at the appropriate ETE. The Appeal Board held that the unexplained exclusion of the 2000 vehicles must be rectified — thus the remand order. ALAB-932, 31 NRC at 419. The Licensing Board acknowledges that its findings on this issue were, at best, incomplete.

At the prehearing conference Licensees proposed the remand order be resolved by the issuance of an order directing the Licensees to complete a set of IDYNEV runs and arrive at a final position on the ETEs by August 15, 1990. We would also direct the NRC Staff to assure that the ETEs are in conformity with the Appeal Board's order. Licensees then would expect that the result would be incorporated into the NHRERP and the SPMC in January 1991. Tr. 28,445-47. The Licensing Board believed that matter was not urgent and the schedule was satisfactory. By dividing the additional number of cars by the known clearance rate, it can already be predicted that the change in the ETE

¹¹ The Board did not set a date for Licensees' compliance at the prehearing conference. Counsel for Licensees committed to the June 26 date by telephone on June 21, 1990.

will be about 30 minutes if all 2000 vehicle are placed into the run.¹² The Board approved Licensees' proposal. Tr. 28,449.¹³

CONCLUSION

The sheltering issue remanded by ALAB-924 is resolved.

A schedule has been set to examine the ALS-Patient issue under the summary disposition provisions of 10 C.F.R. § 2.749.

The ETE issue regarding hidden vehicles at the beach has been resolved with the matter left to the NRC Staff to assure compliance with the intent of the remand order in ALAB-932.

THE ATOMIC SAFETY AND LICENSING BOARD

Richard F. Cole
ADMINISTRATIVE JUDGE

Kenneth A. McCollom
ADMINISTRATIVE JUDGE

Ivan W. Smith, Chairman
ADMINISTRATIVE LAW JUDGE

Bethesda, Maryland
June 27, 1990

¹² The Licensing Board has a lingering concern that simply adding 2000 vehicles to the IDYNEV run will overstate the increase to the ETE. First, in our Finding 9.120 we misstated the record in referring to the aerial photos as "vertical." They are not. These are very sophisticated cameras. A stereoptical effect is produced. Because of the acute camera angles, vehicles in carports and overhangs such as motel parking lots, can be seen and were counted. That type of covered parking is common at the beach. Tr. 7514. This effect can be seen in the Avis Airmap photos. Applicants' Exhibits 3 A-E. LBP-88-32 failed to account for this phenomenon even though Staff's credible witness, Dr. Urbanik, explained it. Tr. 7513-14. Moreover, our findings did not address, but should have addressed, whether *all* of the hidden vehicles would be driven away during an evacuation.

The remand order stated that applicants must incorporate the hidden vehicles "within the *appropriate* ETE calculations" (emphasis supplied). Clearly the purpose of the remand directive is to achieve readily attainable accuracy, and should not be read to require an unreasoned addition of 2000 vehicles to the IDYNEV model.

¹³ Because there was very little notice that the remanded ETE issue would be considered at the June 5, 1990 prehearing conference, the Board's approval of the proposal was subject to any objections raised by Intervenor within 10 days. Tr. 28,450. None were raised.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Charles Bechhoefer, Chairman
Dr. Walter H. Jordan
Dr. Jerry R. Kline

In the Matter of

Docket Nos. 030-31379-OM
030-01615-OM
(ASLBP No. 90-612-04-OM)
(EA 90-071)
(Order Suspending Brachytherapy
Activities and Modifying License)

ST. MARY MEDICAL CENTER—
HOBART
ST. MARY MEDICAL CENTER—
GARY

In the Matter of

Docket No. 030-12150-OM
(ASLBP No. 90-615-05-OM)
(EA 90-072)
(Confirmatory Order Suspending
Brachytherapy Activities and
Modifying License)

PORTER MEMORIAL HOSPITAL
(Valparaiso, Indiana)

June 26, 1990

In a Prehearing Conference Order governing two proceedings, the Licensing Board (1) grants a joint motion of all parties to defer for 30 days all activities in one proceeding, to accommodate settlement negotiations, and (2) grants the

request of the only petitioner for intervention in the other proceeding to withdraw his request for a hearing, thus terminating that proceeding.

PREHEARING CONFERENCE ORDER (Deferral and Termination of Respective Proceedings)

On June 22, 1990, the Atomic Safety and Licensing Board for these two proceedings held a single prehearing conference governing each of the proceedings, in Gary, Indiana.¹ Following is a description of the actions taken with respect to each proceeding:

1. With respect to the *St. Mary Medical Center—Hobart and Gary* proceeding, the basic facts of which appear in the Licensing Board's Memorandum and Order dated May 31, 1990 (unpublished), the Board first admitted Dr. Koppolu P. Sarma as an intervenor to the proceeding (Tr. 10). In response to Dr. Sarma's intervention petition, neither the Licensees nor NRC Staff offered any objection. In taking this action at the prehearing conference, we expressed no opinion whether Dr. Sarma has been adversely affected by the underlying enforcement order and thus has a right to intervene or whether we were admitting him as a matter of discretion, as recommended by the Staff.

Following the admission of Dr. Sarma as an intervenor, the parties advised that they had used the occasion of the prehearing conference to discuss settlement of the issues, and they orally made a joint motion to defer further proceedings for 30 days to permit the negotiations to continue, followed by a written status report to be submitted no later than July 23, 1990 (Tr. 12). The Board granted the motion but specifically required the report to set forth matters remaining in controversy, assuming full settlement has not been reached by that time (Tr. 12-13). Through this mechanism, the Board wishes to avoid the necessity of a second prehearing conference as a predicate to ascertaining and narrowing issues in controversy, should further proceedings be required.

2. In the *Porter Memorial Hospital* proceeding, the basic facts of which are described in the Licensing Board's Memorandum and Order dated June 8, 1990 (unpublished), both the Licensee and the NRC Staff opposed the request for a hearing and petition to intervene of Dr. Koppolu P. Sarma. On June 14, 1990, Dr. Sarma filed a reply to the Licensee's answer which stated, *inter alia*, that

Becoming aware of the Hospital's opposition to a Hearing for the first time, Dr. Sarma respectfully withdraws his request for a Hearing, but reiterates his request to fully participate

¹Notices of the prehearing conference were published at 55 Fed. Reg. 23,157 (June 6, 1990) (*St. Mary*) and 55 Fed. Reg. 24,172 (June 14, 1990) (*Porter*).

in the proceedings since any finding will have an impact upon his license to practice medicine in the State of Indiana.

At the prehearing conference, the Board advised Dr. Sarma's counsel that, if Dr. Sarma withdrew his petition to intervene, there would be no further proceeding in which he could participate with respect to the *Porter Memorial Hospital* order (Tr. 7). In addition, the Board advised that, upon Dr. Sarma's withdrawal, the statements in the Staff's Confirmatory Order, to which Dr. Sarma had voiced objection, would remain in effect (Tr. 9). Nonetheless, Dr. Sarma (through counsel) reiterated his intention to withdraw, and the Board granted this request, effectively terminating the proceeding.

3. *Order.* In view of the foregoing, it is, this 26th day of June 1990; ORDERED:

1. Dr. Sarma's petition to intervene in the *St. Mary Medical Center—Hobart and Gary* proceeding is hereby granted.

2. The joint motion of the Licensees, Dr. Sarma, and the NRC Staff for deferral of further activities in the *St. Mary Medical Center—Hobart and Gary* proceeding until July 23, 1990, for the purpose of accommodating settlement negotiations, is hereby *granted*. By that date, the parties are to file a report as to the outcome of settlement negotiations and, if settlement has not been agreed upon, to outline remaining matters at issue.

3. The petition of Dr. Sarma to withdraw from the *Porter Memorial Hospital* proceeding is hereby *granted*. That proceeding is hereby *terminated*.

4. Because this order is the final order in the *Porter Memorial Hospital* proceeding, it is subject to review by the Atomic Safety and Licensing Appeal Board in accordance with 10 C.F.R. §§ 2.770 and 2.785.

THE ATOMIC SAFETY AND
LICENSING BOARD

Charles Bechhoefer, Chairman
ADMINISTRATIVE JUDGE

Dr. Walter H. Jordan
ADMINISTRATIVE JUDGE

Dr. Jerry R. Kline
ADMINISTRATIVE JUDGE

Bethesda, Maryland
June 26, 1990

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judge:

Peter B. Bloch

In the Matter of

Docket Nos. 70-00270
30-02278-MLA
(ASLBP No. 90-613-02-MLA)
(Re: TRUMP-S Project)
(Byproduct License
No. 24-00513-32;
Special Nuclear Materials
License No. SNM-247)

CURATORS OF THE
UNIVERSITY OF MISSOURI

June 29, 1990

The presiding officer required the Staff to consider a new standard for determining the proper contents of a hearing file in a Subpart L case pursuant to 10 C.F.R. § 1.1231.

**RULES OF PRACTICE: SUBPART L; CONTENTS OF HEARING
FILE**

In this Subpart L case, involving areas of concern related to fears of serious harm to public safety, the Presiding Officer, acting pursuant to 10 C.F.R. § 2.1231, required the Staff to include in the hearing record: *any NRC report* (including inspection reports and findings of violation) and *any correspondence* between the NRC and Licensee, during the last 10 years, that *Intervenors could reasonably believe to be relevant* to any of their admitted areas

of concern (an area of concern is a general area that is not sharply delimited to specific words used in describing the concern).

MEMORANDUM AND ORDER

(Additions to the File)

On June 25, 1990, Intervenors filed a "Motion of Petitioners for Order to Complete the Hearing Record." Applicant has responded rapidly, in the interest of a fair and efficient determination in this case, by sending me today its "Answer of Licensee."

Intervenors rely on my finding in a previous case, *Rockwell*, Docket No. 70-25, Tr. 288, where I ruled that Rockwell should provide to the Intervenors in that case "all documents that have been created within the last twenty years that relate to prior applications related to SNM-21 and staff analyses, and inspections and violations related to SNM-21."

As Applicants point out in their answer, this case is not identical to *Rockwell*. In that case, the areas of interest included an allegation of improper release of radionuclides and toxic substances, as evidenced by physical evidence on the site. Furthermore, in this case counsel cites the controlling regulation with respect to the hearing file, 10 C.F.R. § 2.1231, which requires that:

The hearing file will consist of the application and any amendment thereto, any NRC environmental impact statement or assessment relating to the application, and any NRC report and any correspondence between the applicant and the NRC that is relevant to the application.

It is my concern, at this time, that the hearing file that was so quickly assembled by the Staff, which obviously was concerned about the efficiency of this proceeding, is incomplete. I can only guess why this is so. A possibility is that the Staff may have interpreted "relevant to the application" in the regulations with respect to whether the Staff reasonably believes documents to be relevant — without regard to the areas of concern admitted in this case. Such a mistake is certainly understandable, but I think that interpretation would unduly restrict the information available to Intervenors with respect to their concerns.

Therefore, pursuant to 10 C.F.R. § 2.1231(b), I order that the hearing file shall include *any NRC report* (including inspection reports and findings of violation) and *any correspondence* between the NRC and Licensee during the last 10 years, that *Intervenors could reasonably believe to be relevant* to any of their admitted areas of concern (an area of concern is a general area that is not sharply delimited to specific words used in describing the concern). A brief summary of the admitted areas of concern is: (1) risks related to fire or explosions;

(2) the need for a buffer zone around the area of experimentation in order to protect public safety; (3) the adequacy of administrative controls; (4) the adequacy of emergency plans; (5) the need for an environmental assessment and environmental impact statement; and (6) the particularization of personnel responsibilities (particularly the personnel of Rockwell International, Inc., who will be on site).

I would note that the hearing file is provided by the agency in place of discovery. Its completeness is essential to avoid having this proceeding be blind to the facts. Licensee has recognized that Intervenor is entitled to most of the information they request pursuant to the Freedom of Information Act,¹ so the only difference between placing it in the hearing file and providing it through an FOIA request appears to be the speed of response — and speed is essential here because of intervenors' fears of risk to public health.

Because Licensee has responded so quickly to intervenors' motion, it now is unnecessary for Staff to respond to the unpublished order I issued yesterday. Should the Staff be concerned about the appropriateness of this Order, I invite them to comply and subsequently to file an objection on which I will rule subsequent to the information being made available.²

Respectfully ORDERED,

Peter B. Bloch, Presiding Officer
ADMINISTRATIVE JUDGE

Bethesda, Maryland

¹ Answer of Licensee at 4 n.1.

² The Staff may, of course, withhold the disclosure of information if they think a significant harm would come from that disclosure. However, I ask them to describe the harm to me for any materials they would withhold.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Thomas E. Murley, Director

In the Matter of

Docket Nos. 50-275-A
50-323-A

PACIFIC GAS AND ELECTRIC
COMPANY
(Diablo Canyon Nuclear Power
Plant, Units 1 and 2)

June 14, 1990

The Director of the Office of Nuclear Reactor Regulation (NRR) has ruled upon a petition filed by the Northern California Power Agency (NCPA) requesting that the NRC take certain enforcement actions against Pacific Gas & Electric Company (PG&E) for allegedly violating the antitrust license conditions for its Diablo Canyon Nuclear Units.

Based upon a Federal District Court's findings and other information that has been provided to the NRC, the Director has concluded that PG&E violated the Diablo Canyon antitrust license conditions by refusing to provide certain California cities partial requirements wholesale power and transmission services.

PG&E also has violated the antitrust license conditions for the Diablo Canyon units by including language in tariffs filed with the Federal Energy Regulatory Commission (FERC) that precludes interested parties from contesting the terms and conditions of those filings. These restrictive provisions provide PG&E with an unfair advantage in its dealings with other power systems by forcing them to take service under whatever terms PG&E provides. These provisions are inconsistent with the intent of the license conditions since the purpose of License Condition (9)a is to enable conceptual differences between parties in service schedules and tariffs to be resolved at FERC.

TECHNICAL ISSUES DISCUSSED

Refusals to provide partial requirements wholesale power and transmission services; Refusals to provide appropriate service schedules and tariffs.

DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

I. INTRODUCTION

The Northern California Power Agency (NCPA), in petitions dated December 4, 1981, and August 1, 1984, as well as a filing dated March 19, 1985, clarifying these two petitions, requested the Director of the Office of Nuclear Reactor Regulation (Director) to take certain enforcement actions against the Pacific Gas & Electric Company (PG&E) for allegedly violating the antitrust license conditions applicable to the captioned nuclear units. As detailed below, I have withheld my decision in this proceeding until now at the request of NCPA, in anticipation of a resolution of the issues among the parties, either through a combination of negotiation, arbitration, or litigation.

In an action brought by the United States against PG&E to recover payment for energy sold by the Western Area Power Administration (WAPA) and used by several cities in California, the U.S. District Court of the Northern District of California (District Court) issued a ruling on June 8, 1989, that dealt with many of the same issues raised by NCPA before the Nuclear Regulatory Commission (NRC) in its 10 C.F.R. § 2.206 petitions. *United States v. Pacific Gas and Electric Co.*, 714 F. Supp. 1039 (N.D. Ca. 1989). The District Court's ruling was made in the context of cross motions for summary judgment and partial summary judgment and motions to dismiss. I have relied upon many of the findings made by the District Court to conclude that while PG&E may have at times acted in a manner inconsistent with the clear intentions of the Diablo Canyon antitrust license conditions, most of the issues raised by NCPA before the NRC have been mooted. Consequently, although a notice of violation is being issued with this Decision, I am not taking any further enforcement action against PG&E at this time.

However, in light of the conclusions reached by the District Court regarding PG&E's noncompliance with the Diablo Canyon license conditions,* I am specifically requiring PG&E to report to me in writing within 30 days of its

*Although the District Court cited PG&E's noncompliance with the Stanislaus Commitments made to the Department of Justice, they are identical to the Diablo Canyon license conditions.

receipt of this order regarding the steps it has taken and plans to take in the future to comply with the District Court ruling.**

II. BACKGROUND

During the antitrust review of the Stanislaus Nuclear Project (Stanislaus) conducted by the NRC Staff and the staff of the Department of Justice (Department), the Department, via letter dated May 5, 1976, to Howard K. Shapar, Executive Legal Director, from Thomas E. Kauper, Assistant Attorney General, Antitrust Division, advised the NRC Staff that PG&E (also the Stanislaus applicant) was engaged in activity that was inconsistent with the antitrust laws. As a result of the Stanislaus antitrust review, certain licensing commitments (Commitments) were made by PG&E to the Department that, according to the Department, obviated the need for an antitrust hearing before the NRC if the Commitments were incorporated in the Stanislaus license with the full force and effect of antitrust license conditions.

In the letter transmitting the Commitments to the Department, John F. Bonner, President of PG&E, stated that

In the event that PGandE's application for a construction permit for the Stanislaus Nuclear Project Unit 1 is withdrawn, or that a construction permit for such unit is not issued by the Nuclear Regulatory Commission prior to July 1, 1978, PGandE is willing to have its license(s) for Diablo Canyon Nuclear Power Plant, Units 1 and 2, amended to incorporate the commitments.

Subsequently, by letter dated September 15, 1978, Jerome Saltzman, Chief, Antitrust and Indemnity Group, Office of Nuclear Reactor Regulation, NRC, advised PG&E Vice President and General Counsel John C. Morrissey that no construction permit had been issued for the Stanislaus Nuclear Project to date and pursuant to the letter accompanying the Stanislaus Commitments, the NRC Staff intended to amend the Diablo Canyon construction permits to incorporate the Stanislaus Commitments. Mr. Morrissey, by letter dated September 19, 1978, advised Mr. Saltzman that PG&E had no objection to amending the Diablo Canyon licenses by incorporating the Stanislaus Commitments as license conditions. The Diablo Canyon construction permits were amended to include the Stanislaus Commitments as license conditions on December 6, 1978 (43 Fed. Reg. 247 (Dec. 22, 1978)).

**An additional violation not dealt with in the District Court's decision concerns License Condition 9(a). For this violation, I am requiring PG&E to report whether the practices have been discontinued and the steps PG&E has taken or will take to cure the problem.

A. NCPA's Petitions

Pursuant to 10 C.F.R. § 2.206, a petition requesting enforcement action against PG&E was filed with the Director on December 4, 1981, by NCPA. In its petition, NCPA alleged that PG&E had violated portions of the Diablo Canyon license conditions dealing with transmission services and interconnection agreements. In response to inquiries by the NRC Staff, NCPA supplemented its initial petition on three occasions. After meeting separately with each of the parties, the Director conducted a joint meeting with counsel and officials of both NCPA and PG&E in November of 1982 in an effort to resolve the dispute between the parties. As a result of the joint meeting, the parties agreed to negotiate further and, if necessary, to submit to binding arbitration pursuant to the relevant rates, terms, and conditions of an interconnection agreement and the associated transmission problems. The NRC agreed to await the outcome of the negotiations and any ensuing arbitration before proceeding further with its review of NCPA's petition. Negotiations did not prove fruitful and the issues in controversy were ultimately submitted to arbitration. Lengthy arbitration proceedings were conducted by an official of the Federal Energy Regulatory Commission (FERC), who agreed to act in the capacity of an arbitrator independently from his official position at the FERC. As a result of the arbitration, the parties reached an accord on the interconnection agreement and associated transmission services and the agreement was accepted for filing at the FERC and made effective on September 19, 1983.

NCPA's 1981 section 2.206 petition primarily addressed PG&E's alleged refusal to transmit power and energy associated with NCPA's Geysers generating units. When the two parties signed the interconnection agreement discussed above, many of the issues raised by NCPA in its 1981 petition were seemingly resolved. However, on August 1, 1984, NCPA filed with the Director a petition that renewed its petition for enforcement action filed in December of 1981. The thrust of the renewed petition differed from the initial petition and centered around the interpretation of whether the contracts between PG&E and individual NCPA member systems were full-requirements contracts or partial-requirements contracts. The distinction is significant in that a full-requirements contract would, ostensibly, preclude each NCPA member system from participating in all of the benefits associated with the license conditions — at least until the full-requirements contract was terminated.

The dispute that precipitated NCPA's 1984 petition resulted from a complaint filed by PG&E in California state court which sought to compel the City of Healdsburg, California (Healdsburg), a NCPA member system, to pay PG&E for energy that NCPA had purchased from WAPA. PG&E transmitted the power over its system to Healdsburg but maintained that Healdsburg was precluded from purchasing the WAPA power because of its full-requirements

contract with PG&E. Healdsburg denied PG&E's allegations and stated that its contract with PG&E was not a full-requirements contract, but a contract that specifically allowed Healdsburg to seek alternative (to PG&E) sources of power and required PG&E to negotiate in good faith to provide partial-requirements power to Healdsburg. NCPA member cities established an escrow account for the purchased power and in April 1988, the United States through WAPA brought suit against PG&E, NCPA and its member cities to recover payment for power sold.

In a subsequent filing to the Director dated March 19, 1985 (Clarification Filing), NCPA attempted to clarify its 1984 petition and narrow many of the outstanding issues involving PG&E and NCPA that had been pending before the NRC. As a result of extensive discussions among the parties, as well as the Staff, NCPA indicated in its Clarification Filing that it was "prepared to withdraw certain of these counts without prejudice" At the same time NCPA proposed withdrawing many of the allegations raised against PG&E, NCPA highlighted several remaining areas of alleged anticompetitive activity by PG&E that, according to NCPA, were violations of the Diablo Canyon license conditions. In a letter dated May 29, 1985, to NCPA counsel, the Director closed out NCPA's allegations identified by NCPA as no longer outstanding issues and indicated that the Staff was reviewing NCPA's renewed allegations of PG&E's noncompliance with the following license conditions:

- (2)f—Interconnection agreements,
- (7)a—Providing transmission services,
- (7)d—Filing rate schedules and agreements for transmission services,
- (9)a—Implementing rates, charges, and practices subject to the appropriate regulatory body.

B. District Court Proceeding

At the same time NCPA was pursuing its 10 C.F.R. § 2.206 action against PG&E before the NRC, the state court proceeding discussed *supra* was moved to the District Court. Although the District Court Judge indicated that the proceeding before his court was not an action to enforce the Atomic Energy Act, he concluded that the Stanislaus Commitments were a part of a contract between PG&E and the Department of Justice and that NCPA was entitled to sue PG&E, as a third-party beneficiary of said contract, to enforce its rights under the contract.

Accordingly, several of the issues in controversy before the District Court were identical to those identified by NCPA in the pending petition now before the NRC. The issues relevant to the NRC proceeding involved an interpretation of whether the NCPA member systems' contracts with PG&E were full-requirements contracts, requiring the members to purchase all of their wholesale

power requirements from PG&E, or partial-requirements contracts that would allow the member systems to purchase less than 100% of their wholesale power needs from PG&E. The NCPA member systems asserted that their contracts allowed them to not only purchase less than all of their wholesale power requirements from PG&E, but that under the Stanislaus Commitments (as well as the Diablo Canyon license conditions), PG&E was obligated to transmit partial-requirements power over its facilities to the NCPA member systems.

On June 8, 1989, the District Court ruled that the PG&E contracts with three of the NCPA member cities, Healdsburg, Lompoc, and Santa Clara, did contain alternate power clauses that enabled these cities to shop for alternate power suppliers in the wholesale bulk power services market. The Court cited the following provisions in the Cities' contracts to buttress this conclusion:

(b) Nothing in this Agreement shall be interpreted in such a way as to prevent [the City] from seeking to obtain Power from sources other than PG&E

(c) In the event [that the City] is able to obtain . . . Power from sources other than PGandE and still wishes to continue purchasing some Power from PGandE, at [the City's] request the Parties shall endeavor in good faith to amend, supplement or supersede this Agreement in order to accommodate [the City's] purchase and use of such other sources of Power on terms and conditions which are just and reasonable. [*United States of America v. Pacific Gas and Electric Company, supra*, at 1052-1053.]

The Court also ruled that the PG&E contracts with three other NCPA member cities — Alameda, Lodi, and Ukiah — were full-requirements contracts because "they were obligated to purchase all of their energy requirements from PG&E" The Court ruled that there was no provision in the contracts with these three cities that provided for partial-requirements sales or good-faith efforts to negotiate less than full-requirements agreements.

III. DISCUSSION

On August 1, 1984, NCPA filed with the Director a petition for enforcement of antitrust license conditions against PG&E pursuant to 10 C.F.R. § 2.206. The petition identified several instances of alleged noncompliance with the antitrust license conditions attached to its Diablo Canyon nuclear plant. On March 15, 1985, NCPA filed a Clarification Filing (representing NCPA's most recent allegations) requesting the Director to take enforcement action against PG&E for its alleged violation of License Conditions (2)f, (7)a, (7)d, and (9)a.

The common thread running throughout both the District Court proceeding discussed *supra* and NCPA's August 1, 1984 section 2.206 petition alleging that PG&E has not complied with its Diablo Canyon License conditions revolved around the interpretation of whether the PG&E contracts with the individual

NCPA member cities were full or partial-requirements wholesale power contracts. The District Court concluded, and I concur, that the wording in three of these contracts, with the cities of Healdsburg, Lompoc, and Santa Clara, requires PG&E, upon request, to engage in "good-faith" discussions and negotiations that would enable these cities to purchase wholesale power from sources other than PG&E. According to the record established in the District Court proceeding, PG&E did not live up to its power supply contracts with these three cities.

PG&E's failure to comply with the contractual obligation to negotiate in good faith precludes it from objecting to the invocation of the alternate power clauses by these three cities. [*United States of America v. Pacific Gas and Electric Company, supra*, at 1053.]

PG&E did not cooperate with the cities of Healdsburg, Lompoc, and Santa Clara when the cities requested PG&E to transmit energy from WAPA. Under these power supply contracts, PG&E is obligated, upon request, to negotiate in good faith the amendment of each power supply contract — thereby providing these three cities with the option of purchasing power from sources other than PG&E. PG&E has taken the position that its contracts with these cities are full-requirements contracts and consequently has no obligation to negotiate a partial-requirements agreement with the cities or file rates with the FERC that would apply to partial-requirements sales to the cities.

In assessing the merits of the allegations against PG&E, the Staff concurs in the findings of the District Court Decision. The District Court Decision substantiates many of the allegations raised by NCPA in its section 2.206 petition pursuant to PG&E's noncompliance with its Diablo Canyon license conditions. Based upon the District Court Decision and the filings before the NRC addressing PG&E's alleged noncompliance with its Diablo Canyon license conditions, I have concluded that PG&E has violated License Conditions (6), (7)a, (7)d, and (9)a. License Condition (6) requires PG&E to "sell firm, full or partial-requirements power for a specified period to an interconnected Neighboring Entity or Neighboring Distribution System" NCPA and the City of Healdsburg have requested a filed tariff and the purchase of partial-requirements power from PG&E subsequent to the implementation of the license conditions. PG&E has refused to provide these services. In conjunction with this request(s) for partial-requirements service, NCPA and Healdsburg also requested PG&E to file tariffs and provide transmission services. Pursuant to License Conditions (7)a and (7)d, PG&E is required to file, with the appropriate regulatory body, rate schedules and agreements for any partial-requirements service and provide the necessary transmission service(s). PG&E, as the District Court found, refused to file the appropriate rate schedules and provide these services.

Moreover, PG&E has included the following language or similar language, which is inconsistent with the license conditions, in tariffs filed with the FERC pursuant to the license conditions (e.g., the PG&E/Healdsburg power supply contract and the PG&E/NCPA interconnection agreement):

This agreement shall become effective on the date it is permitted to become effective by FERC; provided the agreement is expressly conditioned upon FERC's acceptance of all provisions thereof, without change, and shall not become effective unless so accepted.

This language is not consistent with the intent of the license conditions in that it provides PG&E with an unfair advantage in its dealings with other power systems in the Northern California bulk power services market. Such language effectively precludes interested parties from contesting the terms and conditions of the service schedule — thereby impeding the resolution of any problems or differences of interpretation between PG&E and parties that may wish to take service under the license conditions and potentially forcing these parties to take service under whatever terms PG&E provides. License Condition (9)a requires PG&E to file service schedules with the FERC even if the parties do not agree to all of the proposed terms and conditions. The purpose of License Condition (9)a is to resolve any conceptual differences in the proposed service schedule at the FERC.

The FERC has jurisdiction over the transmission or sale of energy required under the license conditions. To circumvent this jurisdiction by failing to file the required service schedules or by including provisions in the service agreements that restrict FERC's input and jurisdiction is a violation of License Condition (9)a.

In addition to the violations I have already identified, NCPA in its Clarification Filing has requested the Director to take additional enforcement action against PG&E. NCPA alleged that PG&E violated License Condition (2)f by not entering into a partial-requirements wholesale power agreement with Healdsburg. License condition (2)f addresses *interconnection* agreements and states that “[a]n interconnection agreement shall not prohibit any party from entering into other interconnection agreements” However, the PG&E/Healdsburg contract in question that has purportedly prevented the initiation of a partial-requirements contract is a power sales agreement, not an interconnection agreement. From the data reviewed by the Staff in this proceeding, there is no indication that PG&E has violated License Condition (2)f.

NCPA requested the NRC to direct PG&E to withdraw its civil suits filed against six NCPA member cities requesting, *inter alia*, payment for sales to member systems for power received from WAPA. NCPA stated that “[i]f the license conditions are to have any effect, PG&E must be directed to withdraw these suits and file tariffs to effectuate the power purchase transactions at issue.”

(Clarification Filing at 9.) The District Court Decision mooted this request. The District Court ruled on the merits of PG&E's arguments and suggested that PG&E file the necessary rates with the FERC if PG&E wanted to collect payment for the transmission and sale of partial-requirements service to the cities of Healdsburg, Lompoc, and Santa Clara. Thus, NCPA's request to the NRC to direct PG&E to file rates with the FERC was addressed and resolved by the District Court.

NCPA continues in its Clarification Filing by requesting that "the Diablo Canyon license conditions should be filed [with the FERC] in their entirety along with whatever rate schedule PG&E devises for Healdsburg *et al.*" The license conditions do not address the terms and conditions of rate schedules. This particular area of expertise falls within the jurisdiction of the appropriate regulatory body — usually the FERC — and for this reason, the Staff relies on the appropriate regulatory body to implement the different agreements required by NRC license conditions. Diablo Canyon License Condition (9)a is the governing license condition in the instant proceeding — it reads as follows:

All rates, charges, terms and practices are and shall be subject to the acceptance and approval of any regulatory agencies or courts having jurisdiction over them.

Given the fact that this directive is included as a license condition in the Diablo Canyon license, there is no need to require PG&E to file the license conditions with the FERC.

Finally, NCPA in its Clarification Filing makes the argument that if PG&E has violated its license conditions as alleged, then PG&E also violated the portion of its license, Section 2.G (NCPA incorrectly identifies this Section as 2.H) that requires the licensee to notify the NRC of any violations of the requirements contained in the license — including the antitrust license conditions. Given the nature of the violations of the antitrust license conditions cited *infra* and the fact that these issues were the subject of lengthy court proceedings, it is not reasonable to conclude that PG&E violated the requirement to notify the NRC within 24 hours of the occurrence of a violation. However, as I indicated earlier, I am requiring PG&E to report to me in writing within 30 days of its receipt of this Decision regarding the steps it has taken to comply with the District Court's ruling.

IV. CONCLUSION

Based upon the reasons set forth above, it is my decision that PG&E has violated certain of its Diablo Canyon antitrust license conditions. However, other than the issuance of a Notice of Violation and the requirement that PG&E

provide information to the Staff within 30 days of its receipt of this Decision, I am taking no other enforcement action at this time since it is my decision that the June 8, 1989 District Court Decision provides the necessary remedial action that requires PG&E to comply with the Diablo Canyon antitrust license conditions.

Thomas E. Murley, Director
Office of Nuclear Reactor
Regulation

Dated at Rockville, Maryland,
this 14th day of June 1990.

DPRM-90-1 was inadvertently omitted from the February 1990 issuances, and, therefore, this Denial of Petition for Rulemaking can be found at 32 NRC 281.

DPRM-90-2 was inadvertently omitted from the June 1990 issuances, and, therefore, this Denial of Petition for Rulemaking can be found at 32 NRC 317.

CASE NAME INDEX

ADVANCED MEDICAL SYSTEMS, INC.

SPECIAL PROCEEDING; DECISION; Docket No. 30-16055-SP; ALAB-929, 31 NRC 271 (1990)
 SUSPENSION OF LICENSE; MEMORANDUM AND ORDER (Granting NRC Staff Motion for
 Summary Disposition and Terminating Proceeding); Docket No. 30-16055-SP (ASLBP No.
 87-545-01-SP) (Suspension Order); LBP-90-17, 31 NRC 540 (1990)

BALTIMORE GAS AND ELECTRIC COMPANY

MATERIALS LICENSE; MEMORANDUM AND ORDER (Termination of Proceeding); Docket Nos.
 72-8, 50-317, 50-318; LBP-90-13, 31 NRC 456 (1990)

BASIN TESTING LABORATORY, INC. dba BASIN SERVICES, INC.

CIVIL PENALTY; MEMORANDUM AND ORDER (Order Approving Settlement Agreement and
 Terminating Proceeding); Docket No. 15000033-SC/CivP (ASLBP No. 90-601-01-SC/CivP) (EA
 88-265) (General Licensee Under 10 C.F.R. §150.20); LBP-90-14, 31 NRC 458 (1990)

CLEVELAND ELECTRIC ILLUMINATING COMPANY, et al

OPERATING LICENSE AMENDMENT; MEMORANDUM AND ORDER (Granting Petition to
 Intervene); Docket No. 50-440-OLA (ASLBP No. 90-605-02-OLA); LBP-90-15, 31 NRC 501 (1990)

CONSUMERS POWER COMPANY

OPERATING LICENSE; DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206; Docket No. 50-155;
 DD-90-2, 31 NRC 461 (1990)

CURATORS OF THE UNIVERSITY OF MISSOURI

MATERIALS LICENSE AMENDMENT; MEMORANDUM AND ORDER (Admitting Parties and
 "Areas of Concern"; Deferring Action on a Stay); Docket Nos. 70-00270, 30-02278-MLA (ASLBP
 No. 90-613-02-MLA) (Re: TRUMP-S Project) (Byproduct License No. 24-00513-32; Special Nuclear
 Materials License No. SNM-247); LBP-90-18, 31 NRC 559 (1990)

MATERIALS LICENSE AMENDMENT; MEMORANDUM AND ORDER (Additions to the File);
 Docket Nos. 70-00270, 30-02278-MLA (ASLBP No. 90-613-02-MLA) (Re: TRUMP-S Project)
 (Byproduct License No. 24-00513-32; Special Nuclear Materials License No. SNM-247); LBP-90-22,
 31 NRC 592 (1990)

FLORIDA POWER AND LIGHT COMPANY

OPERATING LICENSE AMENDMENT; MEMORANDUM AND ORDER (Ruling on Motion for
 Summary Disposition and Dismissal of Proceeding); Docket Nos. 50-250-OLA-4, 50-251-OLA-4
 (ASLBP No. 89-584-01-OLA) (Pressure-Temperature Limits); LBP-90-4, 31 NRC 54 (1990)

OPERATING LICENSE AMENDMENT; MEMORANDUM AND ORDER (Denying Petition
 to Intervene); Docket Nos. 50-250-OLA-4, 50-251-OLA-4 (ASLBP No. 89-584-01-OLA)
 (Pressure-Temperature Limits); LBP-90-5, 31 NRC 73 (1990)

OPERATING LICENSE AMENDMENT; MEMORANDUM AND ORDER (Prehearing Conference
 Order: Parties and Contentions); Docket Nos. 50-250-OLA-5, 50-251-OLA-5 (ASLBP No.
 90-602-01-OLA-5) (Technical Specifications Replacement) (Facility Operating Licenses Nos. DPR-31,
 DPR-41); LBP-90-16, 31 NRC 509 (1990)

REQUEST FOR ACTION; DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206; Docket Nos. 50-250,
 50-251; DD-90-1, 31 NRC 327 (1990)

GENERAL PUBLIC UTILITIES NUCLEAR CORPORATION

OPERATING LICENSE AMENDMENT; DECISION; Docket No. 50-320-OLA (Disposal of
 Accident-Generated Water); ALAB-926, 31 NRC 1 (1990)

HOUSTON LIGHTING AND POWER COMPANY

ENFORCEMENT ACTION; ORDER; Docket Nos. 50-448, 50-449; CLI-90-1, 31 NRC 131 (1990)

CASE NAME INDEX

KERR-McGEE CHEMICAL CORPORATION

MATERIALS LICENSE AMENDMENT; INITIAL DECISION (Ruling on All Remaining Issues);

Docket No. 40-2061-ML (ASLBP No. 83-495-01-ML); LBP-90-9, 31 NRC 150 (1990)

MATERIALS LICENSE AMENDMENT; MEMORANDUM; Docket No. 40-2061-ML; ALAB-928, 31 NRC 263 (1990)

NORTHERN STATES POWER COMPANY

MATERIALS LICENSE AMENDMENT; MEMORANDUM AND ORDER (Request for Hearing);

Docket No. 30-05004-MLA (ASLBP No. 90-599-01-ML) (Byproduct Material License No. 22-08799-02); LBP-90-3, 31 NRC 40 (1990)

MATERIALS LICENSE AMENDMENT; ORDER TERMINATING PROCEEDING; Docket No. 30-05004-MLA (ASLBP No. 90-599-01-ML) (Byproduct Material License No. 22-08799-02); LBP-90-19, 31 NRC 579 (1990)

PACIFIC GAS AND ELECTRIC COMPANY

ANTITRUST; DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206; Docket Nos. 50-275-A, 50-323-A; DD-90-3, 31 NRC 595 (1990)

PORTER MEMORIAL HOSPITAL

SUSPENSION OF ACTIVITIES AND MODIFICATION OF LICENSE; PREHEARING CONFERENCE ORDER (Deferral and Termination of Respective Proceedings); Docket No. 030-12150-OM (ASLBP No. 90-615-05-OM) (EA 90-072) (Confirmatory Order Suspending Brachytherapy Activities and Modifying License); LBP-90-21, 31 NRC 589 (1990)

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, et al.

OPERATING LICENSE; MEMORANDUM AND ORDER; Docket Nos. 50-443-OL, 50-444-OL (Offsite Emergency Planning Issues); ALAB-927, 31 NRC 137 (1990)

OPERATING LICENSE; MEMORANDUM AND ORDER; Docket No. 50-443-OL-1, 50-444-OL-1 (Rosemount Transmitters); ALAB-930, 31 NRC 343 (1990)

OPERATING LICENSE; DECISION; Docket Nos. 50-443-OL, 50-444-OL (Offsite Emergency Planning Issues); ALAB-932, 31 NRC 371 (1990)

OPERATING LICENSE; MEMORANDUM AND ORDER; Docket Nos. 50-443-OL, 50-444-OL (Offsite Emergency Planning Issues); ALAB-933, 31 NRC 491 (1990); CLI-90-2, 31 NRC 197 (1990); CLI-90-3, 31 NRC 219 (1990)

OPERATING LICENSE; ORDER; Docket Nos. 50-443-OL, 50-444-OL (Offsite Emergency Planning Issues); CLI-90-6, 31 NRC 483 (1990)

OPERATING LICENSE; MEMORANDUM AND ORDER (Ruling on Intervenor's Motions to Admit a Late-Filed Contention and Reopen the Record Based upon the Withdrawal of the Massachusetts E.B.S. Network and WCGY); Docket Nos. 50-443-OL, 50-444-OL (ASLBP No. 82-471-02-OL) (Offsite Emergency Planning); LBP-90-1, 31 NRC 19 (1990)

OPERATING LICENSE; MEMORANDUM AND ORDER (Denying Intervenor's Motion to Reopen Record Regarding Proposed Amendment to Operating License Application); Docket Nos. 50-443-OL, 50-444-OL (ASLBP No. 82-471-02-OL) (Offsite Emergency Planning); LBP-90-2, 31 NRC 38 (1990)

OPERATING LICENSE; MEMORANDUM AND ORDER (Ruling on Certain Remanded and Referred Issues); Docket Nos. 50-443-OL, 50-444-OL (ASLBP No. 82-471-02-OL) (Offsite Emergency Planning); LBP-90-12, 31 NRC 427 (1990)

OPERATING LICENSE; MEMORANDUM AND ORDER (Following Prehearing Conference); Docket Nos. 50-443-OL, 50-444-OL (ASLBP No. 82-471-02-OL) (Offsite Emergency Planning Issues); LBP-90-20, 31 NRC 581 (1990)

ROCKWELL INTERNATIONAL CORPORATION

MATERIALS LICENSE AMENDMENT; MEMORANDUM AND ORDER; Docket No. 70-25-ML (Special Nuclear Material License No. SNM-21); CLI-90-5, 31 NRC 337 (1990)

MATERIALS LICENSE AMENDMENT; MEMORANDUM AND ORDER (Motion to Strike); Docket No. 70-25 (ASLBP No. 89-594-01-ML) (Special Nuclear Material License No. SNM-21) (Request to Renew to October 1990); LBP-90-10, 31 NRC 293 (1990)

MATERIALS LICENSE AMENDMENT; MEMORANDUM AND ORDER (Reconsideration: Homeowners and LAPSR); Docket No. 70-25 (ASLBP No. 89-594-01-ML) (Special Nuclear Material License No. SNM-21) (Request to Renew to October 1990); LBP-90-11, 31 NRC 320 (1990)

CASE NAME INDEX

SAFETY LIGHT CORPORATION, et al

ENFORCEMENT ACTION; MEMORANDUM AND ORDER; Docket Nos. 030-05980, 030-05981, 030-05982, 030-08335, 030-08444; ALAB-931, 31 NRC 350 (1990)

ENFORCEMENT ACTION; ORDER; Docket Nos. 030-05980, 030-05981, 030-05982, 030-08335, 030-08444 (ASLBP Nos. 89-590-01-OM, 90-598-01-OM-2); LBP-90-8, 31 NRC 143 (1990)

MODIFICATION ORDER; ORDER (Denying Motions to Dismiss NRC Orders Issued March 16, 1989, and August 21, 1989, for Lack of Jurisdiction); Docket Nos. 030-05980, 030-05981, 030-05982, 030-08335, 030-08444 (ASLBP Nos. 89-590-01-OM, 90-598-01-OM-2); LBP-90-7, 31 NRC 116 (1990)

ST. MARY MEDICAL CENTER—HOBART and ST. MARY MEDICAL CENTER—GARY

SUSPENSION OF ACTIVITIES AND MODIFICATION OF LICENSE; PREHEARING CONFERENCE ORDER (Deferral and Termination of Respective Proceedings); Docket Nos. 030-31379-OM, 030-01615-OM (ASLBP No. 90-612-04-OM) (EA 90-071) (Order Suspending Brachytherapy Activities and Modifying License); LBP-90-21, 31 NRC 589 (1990)

VERMONT YANKEE NUCLEAR POWER CORPORATION

OPERATING LICENSE AMENDMENT; MEMORANDUM AND ORDER; Docket No. 50-271-OLA (Spent Fuel Pool Amendment); CLI-90-4, 31 NRC 333 (1990)

OPERATING LICENSE AMENDMENT; MEMORANDUM AND ORDER (Ruling on Petition for Leave to Intervene Filed by the State of Vermont); Docket No. 50-271-OLA-4 (ASLBP No. 89-595-03-OLA) (Construction Period Recapture); LBP-90-6, 31 NRC 85 (1990)

LEGAL CITATIONS INDEX

CASES

- Abela v. Gustafson*, 888 F.2d 1258, 1263-64 (9th Cir. 1989)
 applicability of Equal Access to Justice Act to formal proceedings in absence of statutory requirement for such hearings; ALAB-929, 31 NRC 289 (1990)
- Action on Smoking and Health v. CAB*, 724 F.2d 211, 225 (D.C. Cir. 1984)
 construction of waivers of sovereign immunity; ALAB-929, 31 NRC 291 (1990)
- Adickes v. Kress & Co.*, 398 U.S. 144, 159 (1970)
 affidavit support required for summary disposition motions; LBP-90-4, 31 NRC 67 (1990)
- Alabama Power Co. (Joseph M. Farley Nuclear Plant, Units 1 and 2)*, ALAB-182, 7 AEC 210, 216-17 (1974)
 criteria for admission of contentions; LBP-90-6, 31 NRC 92 (1990)
- Alabama Power Co. (Joseph M. Farley Nuclear Plant, Units 1 and 2)*, ALAB-182, 7 AEC 210, 217 (1974)
 procedure for summary disposition; LBP-90-4, 31 NRC 66 n.6 (1990)
- Alabama Power Co. (Joseph M. Farley Nuclear Plant, Units 1 and 2)*, CLI-81-27, 14 NRC 795, 797 (1981)
 burden on movant for a stay; ALAB-928, 31 NRC 267 (1990)
 weight given to irreparable injury factor in determining stay motions; CLI-90-3, 31 NRC 258 (1990)
- Allied-General Nuclear Services (Barnwell Fuel Receiving and Storage Station)*, ALAB-328, 3 NRC 420, 422 (1976)
 interest requirement for standing to intervene; LBP-90-6, 31 NRC 89 n.3 (1990)
- Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249-50 (1986)
 burden on opponent of summary disposition; CLI-90-3, 31 NRC 239 n.28 (1990)
- Association of Data Processing Service Organizations v. Camp*, 397 U.S. 150, 153 (1970)
 showing necessary to establish standing to intervene in NRC proceeding; LBP-90-6, 31 NRC 89 (1990)
- Availability of Funds for Payment of Intervenor Attorney Fees — Nuclear Regulatory Commission*, 62 Comp. Gen. 692 (1983)
 restrictions on award of attorneys' fees; ALAB-929, 31 NRC 277 (1990)
- Bellotti v. NRC*, 725 F.2d 1380 (D.C. Cir. 1983)
 hearing rights on materials license amendments; LBP-90-18, 31 NRC 570 (1990)
- Boston Edison Co. (Pilgrim Nuclear Generating Station)*, DD-88-7, 27 NRC 601, 607 (1988)
 probabilistic risk assessment requirement for licensing; LBP-90-6, 31 NRC 113 (1990)
- Bowles v. Willingham*, 321 U.S. 503, 520 (1943)
 hearing rights on summary suspension order; LBP-90-17, 31 NRC 543 (1990)
- Business & Professional People for the Public Interest v. NRC*, 793 F.2d 1366 (D.C. Cir. 1986)
 restrictions on award of attorneys' fees; ALAB-929, 31 NRC 277 (1990)
- Capital Telephone Co. v. FCC*, 498 F.2d 734, 738 n.10 (D.C. Cir. 1974)
 treatment of separate corporate entities as one for purpose of regulation; ALAB-931, 31 NRC 368 n.55 (1990)
- Carolina Power and Light Co. (Shearon Harris Nuclear Power Plant)*, ALAB-837, 23 NRC 525, 533-34 (1986); ALAB-843, 24 NRC 200, 204 (1986); ALAB-856, 24 NRC 802, 805 (1986)
 content of appellate briefs; ALAB-926, 31 NRC 9 (1990)

LEGAL CITATIONS INDEX CASES

- Carolina Power and Light Co. (Shearon Harris Nuclear Power Plant, Units 1 and 2), ALAB-837, 23 NRC 525, 544 (1986)
- litigability of challenges to Commission regulations; LBP-90-6, 31 NRC 103 (1990)
- Cellular Mobile Systems v. FCC, 782 F.2d 182, 201-02 (D.C. Cir. 1985)
- board discretion to admit surrebuttal testimony; ALAB-932, 31 NRC 397 n.101 (1990)
- Chemical Waste Management, Inc. v. EPA, 873 F.2d 1477, 1482 (D.C. Cir. 1989)
- need for formal hearing on materials license suspension; ALAB-929, 31 NRC 285 (1990)
- Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984)
- examination of legislative history to determine statutory intent; ALAB-929, 31 NRC 283 (1990)
- Cincinnati Gas and Electric Co. (William H. Zimmer Nuclear Power Station, Unit 1), ALAB-727, 17 NRC 760, 770, 771 (1983)
- importance of accuracy in evacuation time estimates; CLI-90-3, 31 NRC 240 (1990)
- Cincinnati Gas and Electric Co. (William H. Zimmer Nuclear Power Station, Unit 1), ALAB-727, 17 NRC 760, 775 (1983)
- basis for licensing decision on emergency preparedness; ALAB-932, 31 NRC 389 (1990)
- Cincinnati Gas and Electric Co. (William H. Zimmer Nuclear Power Station), LBP-80-14, 11 NRC 570 (1980)
- newly acquired organizational existence as good cause for late filing; LBP-90-5, 31 NRC 80-81 (1990)
- City of West Chicago v. NRC, 701 F.2d 632 (7th Cir. 1983)
- no significant hazards consideration for materials license amendments; LBP-90-18, 31 NRC 572, 574 (1990)
- City of West Chicago v. NRC, 701 F.2d 632, 641 (7th Cir. 1983), aff'g Kerr-McGee Corp. (West Chicago Rare Earths Facility), CLI-82-2, 15 NRC 232 (1982)
- need for formal hearing on materials license suspension; ALAB-929, 31 NRC 283 (1990)
- Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 753 (1977)
- burden on proponent of summary disposition motion; LBP-90-4, 31 NRC 67 (1990)
- Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 754 (1977)
- burden on opponent of summary disposition; LBP-90-17, 31 NRC 542 n.5 (1990)
- Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-675, 15 NRC 1105, 1113 (1982)
- request for attorneys' fees as cause for discretionary interlocutory review; ALAB-929, 31 NRC 279 (1990)
- Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 746 n.8 (1985)
- showing, absent irreparable injury, for grant of a stay; ALAB-928, 31 NRC 269 (1990)
- Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-820, 22 NRC 743, 748 n.20 (1985)
- speculation about accidents as irreparable injury for purpose of obtaining a stay; CLI-90-3, 31 NRC 259-60 (1990)
- Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), CLI-86-7, 23 NRC 233 (1986), aff'd sub nom. Ohio v. NRC, 814 F.2d 258 (6th Cir. 1987)
- reopening a record, standards for; LBP-90-1, 31 NRC 21 (1990)
- Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), LBP-81-24, 14 NRC 175, 181-85 (1981)
- evidentiary support required of contention at admission stage; LBP-90-6, 31 NRC 92 n.10 (1990)
- Clonlara, Inc. v. Runkel, 722 F. Supp. 1442, 1451 (E.D. Mich. 1989)
- membership basis to establish standing of an organization; LBP-90-16, 31 NRC 514 n.5 (1990)

LEGAL CITATIONS INDEX

CASES

- Commonwealth Edison Co. (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241 (1986)
 weight given to factors (ii) and (iv) in determining admissibility of late-filed contentions; LBP-90-1, 31 NRC 34 (1990)
- Commonwealth Edison Co. (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 244 (1986)
 applicability of five-factor test for late filings to informal proceedings; LBP-90-3, 31 NRC 51 (1990)
- Commonwealth Edison Co. (Carroll County Site), ALAB-601, 12 NRC 18, 24 (1980)
 scope of issues litigable in operating license amendment proceeding; LBP-90-6, 31 NRC 91 (1990)
- Consolidated Edison Co. of New York (Indian Point, Unit 2), CLI-74-23, 7 AEC 947, 951-52 (1974)
 issues appropriate for post-hearing resolution by Staff; CLI-90-3, 31 NRC 231 n.11 (1990)
- Consolidated Edison Co. of New York (Indian Point, Unit 2), LBP-82-25, 15 NRC 715, 736 (1982)
 membership basis to establish standing of an organization; LBP-90-16, 31 NRC 514 n.5 (1990)
- Consolidated Edison Co. of New York (Indian Point, Units 1, 2 and 3), CLI-75-8, 2 NRC 173, 176 (1975)
 standard for initiation of show-cause proceedings; DD-90-1, 31 NRC 331 (1990)
- Consolidated Edison Co. of New York (Indian Point, Units 1, 2, and 3), CLI-75-8, 2 NRC 173, 175 (1975)
 scope of litigable issues in abuse of discretion review; LBP-90-17, 31 NRC 542-43 n.5 (1990)
- Consolidated Edison Co. v. NLRB, 305 U.S. 197, 229 (1938)
 interpretation of "substantial" as applied to evidence; LBP-90-17, 31 NRC 557 (1990)
- Consumers Power Co. (Big Rock Nuclear Plant), ALAB-636, 13 NRC 312, 319 (1981)
 scope of environmental review of operating license amendment; LBP-90-16, 31 NRC 537 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 345 (1973)
 burden of proof and burden of going forward in licensing proceedings; ALAB-926, 31 NRC 15 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-395, 5 NRC 772, 785 (1977)
 burden of proof to show grounds for a stay; LBP-90-18, 31 NRC 575 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 159-60, 169-70 (1978)
 license authorization while remand proceedings and motions are pending; CLI-90-3, 31 NRC 230 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-634, 13 NRC 96, 98 (1981)
 obligation of appeal boards to accept referred rulings; ALAB-929, 31 NRC 278 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), CLI-73-38, 6 AEC 1082 (1973)
 abuse of discretion standard; LBP-90-17, 31 NRC 544 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), CLI-73-38, 6 AEC 1082, 1083-84 (1973)
 hearing rights on materials license suspensions; ALAB-929, 31 NRC 288 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), CLI-73-38, 7 AEC 12 (1973)
 scope of litigable issues in abuse of discretion review; LBP-90-17, 31 NRC 542-43 n.5 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), CLI-74-3, 7 AEC 7, 9-10 & n.6 (1974)
 hearing rights on materials license suspensions; ALAB-929, 31 NRC 288 (1990)
- Consumers Power Co. (Midland Plant, Units 1 and 2), LBP-82-63, 16 NRC 571, 577 (1982)
 newly arising information as good cause for late intervention; LBP-90-5, 31 NRC 79 (1990)
- Duke Power Co. (Amendment to Materials License SNM-1773 -- Transportation of Spent Fuel from Oconee Nuclear Station for Storage at McGuire Nuclear Station), ALAB-528, 9 NRC 146, 151 (1979)
 merits determinations at contention admission stage; LBP-90-6, 31 NRC 92 (1990)
- Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-687, 16 NRC 460 (1982), rev'd in part on other grounds, CLI-83-19, 17 NRC 1041 (1983)
 standard for acceptance of referred rulings; ALAB-929, 31 NRC 279 (1990)
- Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041 (1983)
 five-factor test for admission of late-filed contentions applied to motions to reopen; LBP-90-1, 31 NRC 21 (1990)

LEGAL CITATIONS INDEX

CASES

- Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1048-50 (1983)
timeliness of motions to reopen; CLI-90-6, 31 NRC 487 (1990)
- Escobar Ruiz v. INS, 838 F.2d 1020 (9th Cir. 1988)
applicability of Equal Access to Justice Act to formal proceedings in absence of statutory
requirement for such hearings; ALAB-929, 31 NRC 289 (1990)
- Ewing v. Mytinger & Casselberry, 339 U.S. 594 (1949)
hearing rights on propriety of an administrative decision; LBP-90-17, 31 NRC 543 n.8 (1990)
- Ewing v. Mytinger & Casselberry, Inc., 339 U.S. 594, 599 (1950)
circumstances appropriate for summary license suspension; LBP-90-17, 31 NRC 544 (1990)
- Exxon Nuclear Co. (Nuclear Fuel Recovery and Recycling Center), LBP-77-59, 6 NRC 518 (1977)
proximity to facility as basis for standing; LBP-90-3, 31 NRC 42 (1990)
- Fahey v. Mallonee, 332 U.S. 245, 253 (1947)
circumstances appropriate for summary license suspension; LBP-90-17, 31 NRC 544 (1990)
- First National Bank of Arizona v. Cities Service Co., 391 U.S. 253, 289-90, reh'g denied, 393 U.S. 901
(1968)
showing necessary for grant of summary disposition; LBP-90-4, 31 NRC 67 (1990)
- Florida Power and Light Co. (St. Lucie Nuclear Power Plant, Unit 2), ALAB-404, 5 NRC 1185, 1188
(1977)
decisionmaking process in consideration of alternative site; ALAB-928, 31 NRC 268 (1990)
- Florida Power and Light Co. (St. Lucie Nuclear Power Plant, Unit 2), ALAB-579, 11 NRC 223, 226
(1980)
definition of "reasonable nexus"; ALAB-930, 31 NRC 346 (1990)
- Florida Power and Light Co. (Turkey Point Nuclear Generating Station, Units 3 and 4), LBP-81-14, 13
NRC 677, 684-85 (1981)
scope of environmental review of operating license amendment; LBP-90-16, 31 NRC 537 (1990)
- Gallagher & Ascher Co. v. Simon, 687 F.2d 1067, 1074 (7th Cir. 1982)
need for formal hearing on materials license suspension; ALAB-929, 31 NRC 286 (1990)
- Garen v. Heckler, 746 F.2d 844, 852 (D.C. Cir. 1984)
standard for grant of writ of mandamus; CLI-90-3, 31 NRC 229 (1990)
- Garvett v. Office of Personnel Management, 808 F.2d 1456, 1465-66 (Fed. Cir. 1986)
substantial justification standard for judicial review of discretionary administrative actions; LBP-90-17,
31 NRC 545 n.11 (1990)
- General Public Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Unit 1), ALAB-881, 26 NRC
465, 473 (1987)
standard for rejection or modification of licensing board findings; ALAB-926, 31 NRC 13 (1990)
- General Public Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Unit 2), ALAB-914, 29 NRC
357, 361 (1989)
burden of proof to show grounds for a stay; LBP-90-18, 31 NRC 575 (1990)
showing, absent irreparable injury, for grant of a stay; ALAB-928, 31 NRC 269 (1990)
- General Public Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Units 1 and 2; Oyster Creek
Nuclear Generating Station), CLI-85-4, 21 NRC 561, 563 (1985)
use of 2.206 procedures as a vehicle for reconsideration; DD-90-2, 31 NRC 467 (1990)
- Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), ALAB-872, 26 NRC 127, 131-32
(1987)
penalty for failure to brief claims on appeal; ALAB-926, 31 NRC 9 (1990)
- Gulf States Utilities Co. (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 768-69 (1977)
right of interested state to adopt contentions of withdrawing intervenor; LBP-90-12, 31 NRC 431
(1990)
- Gulf States Utilities Co. (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 796 (1977)
reliance on another party to represent one's interests as good cause for late intervention; LBP-90-5,
31 NRC 80 (1990)

LEGAL CITATIONS INDEX CASES

- Haire v. United States, 869 F.2d 531, 534-36 (9th Cir. 1989)
applicability of Equal Access to Justice Act to formal proceedings in absence of statutory requirement for such hearings; ALAB-929, 31 NRC 289 (1990)
- Health Research Group v. Kennedy, 82 F.R.D. 21 (D.D.C. 1979)
membership basis to establish standing of an organization; LBP-90-16, 31 NRC 514 n.5 (1990)
- Houston Lighting and Power Co. (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 548 (1980)
merits determinations at contention admission stage; LBP-90-6, 31 NRC 92 (1990)
- Houston Lighting and Power Co. (Allens Creek Nuclear Generating Station, Unit 1), ALAB-590, 11 NRC 542, 550 (1980)
purpose of summary disposition; LBP-90-4, 31 NRC 67 (1990)
- Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), ALAB-549, 9 NRC 644, 648-49 (1979)
weight given to delay and broadening of issues in determining late intervention petitions; LBP-90-5, 31 NRC 82 (1990)
- Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), ALAB-799, 21 NRC 360 (1985)
effect of a party's withdrawal on litigation of its contentions; LBP-90-12, 31 NRC 430 (1990)
- Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), ALAB-799, 22 NRC 360, 370-75 (1985)
litigability of character of licensee for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 (1990)
- Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), LBP-84-13, 19 NRC 659, 669-79 (1984)
litigability of character of licensee for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 (1990)
- Hunt v. Washington State Apple Advertising Commission, 432 U.S. 333, 343 (1977)
membership basis to establish standing of an organization; LBP-90-16, 31 NRC 514 n.5 (1990)
- Independent Bankers Association v. Board of Governors, 516 F.2d 1206, 1213-14 (D.C. Cir. 1975)
examination of legislative history to determine statutory intent; ALAB-929, 31 NRC 283 (1990)
- Inland Empire Dist. Council v. Millis, 325 U.S. 697 (1944)
hearing rights on propriety of an administrative decision; LBP-90-17, 31 NRC 543 n.8 (1990)
- Jones v. Gordon, 792 F.2d 821 (9th Cir. 1986)
EIS and environmental assessment requirements for materials license amendment; LBP-90-18, 31 NRC 569 (1990)
- Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1), LBP-84-17, 19 NRC 878, 886 (1984)
previously available information that is newly acquired by intervenor as good cause for late filing; LBP-90-5, 31 NRC 79 (1990)
- Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1), LBP-84-26, 20 NRC 53, 61-62 (1984)
issues appropriate for post-hearing resolution by Staff; CLI-90-3, 31 NRC 231 n.11 (1990)
- Kansas Gas and Electric Co. v. Brock, 780 F.2d 1505 (10th Cir. 1985), cert. denied, 478 U.S. 1011 (1986)
protection of intervenor-employee from retaliation by licensee; LBP-90-5, 31 NRC 78 (1990)
- Lewis v. United States, 445 U.S. 55, 60 (1980)
starting point for statutory interpretation; ALAB-929, 31 NRC 282 (1990)
- Lichter v. United States, 334 U.S. 742 (1947)
hearing rights on propriety of an administrative decision; LBP-90-17, 31 NRC 543 n.8 (1990)
- Limerick Ecology Action v. NRC, 869 F.2d 719 (3d Cir. 1989)
admissibility of environmental contention dealing with greater-than-design-basis accidents; LBP-90-6, 31 NRC 111 (1990)

LEGAL CITATIONS INDEX

CASES

- Limerick Ecology Action v. NRC*, 869 F.2d 719 (3d Cir. 1989)
litigability of severe-accident contentions in spent fuel pool amendment proceedings; CLI-90-4, 31 NRC 334 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, CLI-86-13, 24 NRC 22 (1986)
standard for determining adequacy of emergency planning; CLI-90-2, 31 NRC 202, 217 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-743, 18 NRC 387, 396 n.37 (1983)
fear of licensee retaliation as good cause for late-filed intervention petition; LBP-90-5, 31 NRC 77 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-788, 20 NRC 1102, 1159 (1984)
issues appropriate for post-hearing resolution by Staff; CLI-90-3, 31 NRC 231 n.11 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-832, 23 NRC 135, 151 (1986), rev'd in part on other grounds, CLI-87-12, 26 NRC 383 (1987)
intervenor evidence regarding teacher role abandonment insufficient because it failed to establish there would not be the minimum number of teachers needed for proper supervision; ALAB-932, 31 NRC 405 n.150 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-832, 23 NRC 135, 154-57 (1986), aff'd, CLI-87-12, 26 NRC 383, 398-99 (1987)
relevance of probability of implementation of a protective action to determination of whether emergency planning obligations have been met; CLI-90-3, 31 NRC 246 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-901, 28 NRC 302, 306, review declined, CLI-88-11, 28 NRC 603 (1988)
definition of "reasonable nexus"; ALAB-930, 31 NRC 346 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-902, 28 NRC 423, 429, review declined, CLI-88-11, 28 NRC 603 (1988)
licensing board authority to dismiss parties in bifurcated proceedings; ALAB-927, 31 NRC 140 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-903, 28 NRC 499, 506 (1988)
fundamental flaw standard for judging adequacy of emergency plans; LBP-90-1, 31 NRC 33 n.54 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, ALAB-911, 29 NRC 247, 254-55 (1989)
EBS network as means of notifying public of radiological emergency, reliance on; LBP-90-1, 31 NRC 27 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, CLI-86-11, 23 NRC 577, 581 (1986)
fundamental flaw standard for admission of emergency exercise contentions; CLI-90-3, 31 NRC 228 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, CLI-86-13, 24 NRC 22, 30 (1986)
minimum dose savings or evacuation time for EPZ, need to preset; CLI-90-3, 31 NRC 240 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, CLI-86-13, 24 NRC 22, 31 (1986)
best-efforts assumption applied to state participation in emergency response where state has not participated in emergency planning; LBP-90-1, 31 NRC 42 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, CLI-89-1, 29 NRC 89, 93-94 (1989)
affidavits and material supporting motions to reopen; LBP-90-12, 31 NRC 444 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, CLI-89-2, 29 NRC 211 (1989)
EBS network as means of notifying public of radiological emergency, reliance on; LBP-90-1, 31 NRC 27 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1)*, LBP-83-57, 18 NRC 445, 573-74 (1983)
probabilistic risk assessment requirement for licensing; LBP-90-6, 31 NRC 113 (1990)

LEGAL CITATIONS INDEX CASES

- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-84-53, 20 NRC 1531 (1984)
license authorization while remand proceedings and motions are pending; CLI-90-3, 31 NRC 230 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-87-26, 26 NRC 201, 204,
reconsideration denied, LBP-87-29, 26 NRC 302 (1987)
replies to responses to summary disposition motions; LBP-90-4, 31 NRC 63 n.3 (1990)
- Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-88-24, 28 NRC 311 (1988)
failure of intervenor to address merits of decision on EBS network as means of notifying public of
radiological emergency; LBP-90-1, 31 NRC 27 n.34 (1990)
- Lorion v. NRC, 712 F.2d 1472 (D.C. Cir. 1983), rev'd on other grounds, 470 U.S. 729
hearing rights on materials license amendments; LBP-90-18, 31 NRC 570 (1990)
- Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3), ALAB-797, 21 NRC 6, 8
(1985)
definition of "reasonable nexus"; ALAB-930, 31 NRC 346 (1990)
- Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1 (1986)
reopening a record, standards for; LBP-90-1, 31 NRC 21 (1990)
- Marathon Oil Co. v. EPA, 564 F.2d 1253, 1263 (9th Cir. 1977)
need for formal hearing on materials license suspension; ALAB-929, 31 NRC 283 (1990)
- Massachusetts v. NRC, 878 F.2d 1516, 1521 (1st Cir. 1989)
hearing rights on operating license amendments; LBP-90-15, 31 NRC 504 (1990)
- Massachusetts v. United States, 856 F.2d 378 (1988)
best-efforts assumption applied to state participation in emergency response where state has not
participated in emergency planning; LBP-90-1, 31 NRC 42 (1990)
- Mathews v. Eldridge, 424 U.S. 319, 333-35 (1976)
formal hearings mandated by due process considerations; ALAB-929, 31 NRC 291 n.14 (1990)
- Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), CLI-83-22, 18 NRC 299, 302,
307-08 (1983)
inadequacy of emergency response organization despite compensatory measures; ALAB-932, 31 NRC
385 n.38 (1990)
- Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), CLI-84-17, 20 NRC 801, 804 (1984)
burden on movant for a stay; ALAB-928, 31 NRC 267 (1990)
- Mississippi Power and Light Co. (Grand Gulf Nuclear Station, Unit 1), ALAB-704, 16 NRC 1725, 1730
(1982)
particularity required of motions to reopen; LBP-90-1, 31 NRC 35 (1990)
- Mississippi Power and Light Co. (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423,
426 (1973)
detail required for basis at contention admission stage; LBP-90-6, 31 NRC 92 (1990)
- Mississippi Power and Light Co. (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-704, 16 NRC 1725,
1730 (1982)
burden on intervention petitioner in absence of good cause for late filing; LBP-90-5; 31 NRC 76
(1990)
- N&D Properties, Inc., 799 F.2d 726, 732 (11th Cir. 1986)
shareholder control of a corporation; ALAB-931, 31 NRC 364 n.46 (1990)
- New York v. NRC, 550 F.2d 745, 756-57 (2d Cir. 1977)
speculation about accidents as irreparable injury for purpose of obtaining a stay; CLI-90-3, 31 NRC
259-60 (1990)
- Niagara Mohawk Power Corp. (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 357
(1975)
standard for rejection or modification of licensing board findings; ALAB-926, 31 NRC 13 (1990)
- Northern Indiana Public Service Co. (Bailey Generating Station, Nuclear 1), ALAB-303, 2 NRC 858, 866
(1975)
weight given to views of recognized experts on human behavior in emergencies; ALAB-932, 31 NRC
398 n.103 (1990)

LEGAL CITATIONS INDEX CASES

- Northern Indiana Public Service Co. (Bailly Generating Station, Nuclear 1), ALAB-303, 2 NRC 858, 867 (1975)
 weight given by appeal boards to licensing board findings; ALAB-926, 31 NRC 13 (1990)
- Northern Indiana Public Service Co. (Bailly Generating Station, Nuclear-1), CLI-78-7, 7 NRC 429, 431-32 (1978)
 applicability of APA section 554 to materials license suspension proceedings; ALAB-929, 31 NRC 288 (1990)
- Northern States Power Co. (Pathfinder Atomic Plant), LBP-90-3, 31 NRC 40, 41 (1990)
 standing to intervene in informal proceedings; LBP-90-18, 31 NRC 565 (1990)
- NRDC v. NRC, 606 F.2d 1261 (D.C. Cir. 1979)
 hearing rights on materials license amendments; LBP-90-18, 31 NRC 570 (1990)
- Nuclear Engineering Co. (Sheffield, Illinois Low-Level Radioactive Waste Disposal Site), CLI-79-6, 9 NRC 673 (1979)
 hearing rights on show-cause orders; LBP-90-17, 31 NRC 544 n.10 (1990)
- Nuclear Regulatory Commission (Licensees Authorized to Possess or Transport Strategic Quantities of Special Nuclear Materials), CLI-77-3, 5 NRC 16, 17, 20 n.6 (1977)
 deferral to staff's judgment on potential enforcement action to avoid premature commitment by Commission on factual issues it may later have to review; LBP-90-17, 31 NRC 544 n.10 (1990)
- Opp Mills v. Administrator of Wage & Hour Division, 312 U.S. 126 (1940)
 hearing rights on propriety of an administrative decision; LBP-90-17, 31 NRC 543 n.8 (1990)
- Owens v. Brock, 860 F.2d 1363, 1366 (6th Cir. 1988)
 construction of waivers of sovereign immunity; ALAB-929, 31 NRC 290 (1990)
- Oystershell Alliance v. NRC, 800 F.2d 1201 (D.C. Cir. 1986)
 license authorization while remand proceedings and motions are pending; CLI-90-3, 31 NRC 230 (1990)
- Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-776, 19 NRC 1373, 1379 (1984)
 basis for licensing decision on emergency preparedness; ALAB-932, 31 NRC 389 (1990)
- Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-782, 20 NRC 838, 842a-42h (1984)
 appeal board jurisdiction to entertain motions to reopen; ALAB-930, 31 NRC 348 (1990)
- Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-86-12, 24 NRC 1, 6 n.3 (1986), rev'd in part on other grounds, San Luis Obispo Mothers for Peace v. NRC, 799 F.2d 1268 (9th Cir. 1986)
 purpose of no significant hazards consideration determination; LBP-90-6, 31 NRC 91 (1990)
- Pennsylvania Power and Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-148, 6 AEC 642, 643 n.2 (1973)
 sufficiency of publication in Federal Register to put intervenors on notice about proposed action; LBP-90-5, 31 NRC 79 (1990)
- Pennsylvania Power and Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-693, 16 NRC 952, 955-57 (1982)
 content of appellate briefs; ALAB-926, 31 NRC 9 (1990)
- Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 705-06 (1985), aff'd in part and review otherwise declined, CLI-86-5, 23 NRC 125 (1986), remanded in part on other grounds sub nom. Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719 (3d Cir. 1989)
 documents forming complete environmental record of decision; ALAB-926, 31 NRC 17 n.78 (1990)
- Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 486 (1986)
 accuracy required of evacuation time estimates; ALAB-932, 31 NRC 408 (1990)
- Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 487 (1986)
 acceptability and adequacy of licensee survey of special-needs populations; LBP-90-12, 31 NRC 433 (1990)

LEGAL CITATIONS INDEX

CASES

- Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-836, 23 NRC 479, 494-95 (1986)
 acceptability of predictive findings and post-hearing verification of formulation and implementation of emergency plans; CLI-90-3, 31 NRC 231 (1990)
- Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-845, 24 NRC 220, 244 (1986)
 accuracy required of evacuation time estimates; ALAB-932, 31 NRC 408 (1990)
- Philadelphia Electric Co. (Pesch Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974)
 scope of issues litigable in operating license amendment proceeding; LBP-90-6, 31 NRC 91 (1990)
- Philadelphia Newspapers, Inc. v. NRC, 727 F.2d 1195, 1202 (D.C. Cir. 1984)
 statute that determines whether an on-the-record hearing is required; ALAB-929, 31 NRC 282, 283 (1990)
- Phillips v. Commissioner, 283 U.S. 589, 596, 597 (1930)
 hearing rights on summary suspension order; LBP-90-17, 31 NRC 543 (1990)
- Pierce v. Underwood, 487 U.S. 000, 108 S. Ct. 000, 101 L. Ed. 2d 490 (1988)
 substantial justification standard for judicial review of discretionary administrative actions; LBP-90-17, 31 NRC 545 n.11 (1990)
- Porter County Chapter of the Izaak Walton League of America, Inc. v. NRC, 606 F.2d 1363, 1368 n.12 (D.C. Cir. 1979)), cert. denied, 469 U.S. 1132 (1985)
 need for formal hearing on materials license suspension; ALAB-929, 31 NRC 284 (1990)
- Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976)
 concepts of standing applied to NRC proceeding; LBP-90-6, 31 NRC 89 (1990)
- Portland General Electric Co. (Trojan Nuclear Plant), ALAB-531, 9 NRC 263, 271-74 (1979)
 content of technical specifications; LBP-90-15, 31 NRC 505 (1990)
- Portland General Electric Co. (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289-90 n.6 (1979)
 scope of issues litigable in operating license amendment proceeding; LBP-90-6, 31 NRC 91 (1990)
- Project Management Corp. (Clinch River Breeder Reactor Plant), ALAB-354, 4 NRC 383, 391-92 (1976)
 effect of a party's withdrawal on litigation of its contentions; LBP-90-12, 31 NRC 430 (1990)
- Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-316, 3 NRC 167, 170 (1976)
 scope of issues litigable in operating license amendment proceeding; LBP-90-6, 31 NRC 91 (1990)
- Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-405, 5 NRC 1190, 1192 (1977)
 standard for grant of discretionary interlocutory review; ALAB-929, 31 NRC 278 (1990); ALAB-931, 31 NRC 360 (1990)
- tests for exercise of directed certification authority; ALAB-933, 31 NRC 498 (1990)
- Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-437, 6 NRC 630, 634 (1977)
 weight given to irreparable injury claim where alternative site contention is being pursued; ALAB-928, 31 NRC 268 (1990)
- Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB-461, 7 NRC 313, 318 (1978)
 issues appropriate for post-hearing resolution by Staff; CLI-90-3, 31 NRC 231 n.11 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-883, 27 NRC 43, 49 (1988)
 five-factor test for admission of late-filed contentions applied to motions to reopen; LBP-90-1, 31 NRC 21 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-915, 29 NRC 427, 432 (1989)
 reopening a record, standards for; LBP-90-1, 31 NRC 21 (1990)

LEGAL CITATIONS INDEX

CASES

- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-916, 29 NRC 434, 437 (1989)
board's view of its own jurisdictional boundaries as basis for grant of discretionary interlocutory review; ALAB-931, 31 NRC 361 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-918, 29 NRC 473, 482 (1989)
promptness required in filing motions to reopen; CLI-90-6, 31 NRC 487 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-918, 29 NRC 473, 483-84 (1989)
particularity required of motions to reopen; LBP-90-1, 31 NRC 35 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 516 (1977)
Commission authority to intervene and provide guidance in pending proceedings; CLI-90-3, 31 NRC 229 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 521 (1977)
license authorization while remand proceedings and motions are pending; CLI-90-3, 31 NRC 230 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503, 532 (1977)
basis for cost-benefit analysis on remand; ALAB-928, 31 NRC 268 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-78-14, 7 NRC 952, 961 n.9 (1978)
licensing board authority on remand to enter any order in connection with remanded proceeding; LBP-90-12, 31 NRC 432 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-8, 29 NRC 399, 314 (1989)
promptness required in filing motions to reopen; CLI-90-6, 31 NRC 487 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-82-76, 16 NRC 1029, 1033 (1982)
probabilistic risk assessment requirement for licensing; LBP-90-6, 31 NRC 113 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-89-3, 29 NRC 51, 59, aff'd, ALAB-915, 29 NRC 427 (1989)
weight given to factors (iii) and (v) in determining admissibility of late-filed contentions; LBP-90-1, 31 NRC 34 (1990)
- Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-83-32A, 17 NRC 1170, 1174 n.4 (1983)
burden on proponent of summary disposition motion; LBP-90-4, 31 NRC 69 (1990)
- Public Service Electric and Gas Co. (Salem Nuclear Generating Station, Unit 1), ALAB-588, 11 NRC 533, 536 (1980)
standard for discretionary interlocutory review; ALAB-929, 31 NRC 278 n.2 (1990)
- Public Service Electric and Gas Co. (Salem Nuclear Generating Station, Unit 1), ALAB-650, 14 NRC 43, 50 n.7 (1981), aff'd sub nom. Township of Lower Alloways Creek v. Public Service Electric and Gas Co., 687 F.2d 732 (3d Cir. 1982)
filing standards applicable to pro se intervenors; ALAB-926, 31 NRC 10 (1990)
- Quivira Mining Co. v. NRC, 866 F.2d 1246, 1252 (10th Cir. 1989)
cost-benefit balancing requirements for disposal of mill tailings; LBP-90-9, 31 NRC 159 (1990)
- Railroad Commission of Texas v. United States, 765 F.2d 221, 227-28 (D.C. Cir. 1985)
applicability of APA section 554 to materials license suspension proceedings; ALAB-929, 31 NRC 287 (1990)
- Reiter v. Sonotone Corp., 442 U.S. 330, 337 (1979)
starting point for statutory interpretation; ALAB-929, 31 NRC 282 (1990)

LEGAL CITATIONS INDEX

CASES

- Robertson v. Methow Valley Citizens Council, 490 U.S. 000 (1989)
worst-case accident considerations in spent fuel pool amendment proceedings; CLI-90-4, 31 NRC 334 (1990)
- Rockwell International Corp. (Rocketdyne Division), ALAB-925, 30 NRC 709 (1989)
authority of presiding officer to ask questions of parties or request documents; LBP-90-18, 31 NRC 577 (1990)
responsibility of presiding officer to document discussions in settlement agreements; LBP-90-10, 31 NRC 317 (1990)
- Rockwell International Corp. (Rocketdyne Division), ALAB-925, 30 NRC 709, 712 n.1 (1989)
acceptance of referred rulings with generic implications; ALAB-929, 31 NRC 279 (1990)
- San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287 (D.C. Cir. 1984), aff'd en banc, 789 F.2d 26, cert. denied, 107 S. Ct. 330 (1986)
worst-case accident considerations in spent fuel pool amendment proceedings; CLI-90-4, 31 NRC 334 (1990)
- San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287, 1316 (D.C. Cir. 1984), aff'd, 789 F.2d 26 (en banc), cert. denied, 479 U.S. 923 (1986)
need for formal hearing on materials license suspension; ALAB-929, 31 NRC 285 (1990)
- Seacoast Anti-Pollution League v. Costle, 572 F.2d 872, 876 (1st Cir. 1978), cert. denied, 439 U.S. 824 (1978)
need for formal hearing on materials license suspension; ALAB-929, 31 NRC 283 (1990)
- Seacoast Anti-Pollution League v. NRC, 690 F.2d 1025 (D.C. Cir. 1985)
economic considerations in decisionmaking on compliance with emergency planning safety regulations; CLI-90-3, 31 NRC 259 (1990)
- See Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-84-12, 20 NRC 249 (1984)
earthquake considerations in emergency planning; LBP-90-12, 31 NRC 000 (1990)
- Sholly v. NRC, 651 F.2d 780, 788 (D.C. Cir. 1981)
hearing rights on materials license amendments; LBP-90-18, 31 NRC 570 (1990)
- Sholly v. NRC, 651 F.2d 780, 791 (D.C. Cir. 1980), vacated on other grounds, 435 U.S. 1194 (1983)
hearing rights on operating license amendments; LBP-90-15, 31 NRC 504 (1990)
- Sierra Club v. Morton, 405 U.S. 727 (1972)
showing necessary to establish standing to intervene in NRC proceeding; LBP-90-6, 31 NRC 89 (1990)
- Sierra Club v. Morton, 405 U.S. 727, 739 (1972)
membership basis to establish standing of an organization; LBP-90-16, 31 NRC 514 n.5 (1990)
- Sierra Club v. NRC, 862 F.2d 222 (9th Cir. 1988)
litigability of severe-accident contentions in spent fuel pool amendment proceedings; CLI-90-4, 31 NRC 334 (1990)
- Smedberg Machine & Tool, Inc. v. Donovan, 730 F.2d 1089 (7th Cir. 1984)
construction of waivers of sovereign immunity; ALAB-929, 31 NRC 290 (1990)
- South Carolina Electric and Gas Co. (Virgil C. Summer Nuclear Station, Unit 1), ALAB-642, 13 NRC 881, 895 (1981)
weight given to delay and broadening of issues in determining late intervention petitions; LBP-90-5, 31 NRC 83 (1990)
weight given to factors (ii) and (iv) in determining admissibility of late-filed contentions; LBP-90-1, 31 NRC 34 (1990)
- Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-717, 17 NRC 346, 379-80 (1983)
basis for licensing decision on emergency preparedness; ALAB-932, 31 NRC 389 (1990)
- Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 533 (1983)
standard for determining adequacy of emergency planning; CLI-90-2, 31 NRC 201 (1990)

LEGAL CITATIONS INDEX

CASES

- Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 536 (1983), rev'd in part on other grounds, GUARD v. NRC, 753 F.2d 1144 (D.C. Cir. 1985)
- interpretation of "extraordinary measures" in emergency planning; CLI-90-3, 31 NRC 237 n.23 (1990)
- Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), CLI-83-10, 17 NRC 528, 536 (1983), rev'd in part on other grounds, GUARD v. NRC, 753 F.2d 1144 (D.C. Cir. 1985)
- police resource requirements for emergency planning; ALAB-932, 31 NRC 412 (1990)
- St. Louis Fuel and Supply Co. v. FERC, 890 F.2d 446 (D.C. Cir. 1989)
- construction of waivers of sovereign immunity; ALAB-929, 31 NRC 290 (1990)
- Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 457 (1981)
- purpose of summary disposition; LBP-90-4, 31 NRC 67 (1990)
- Tennessee Valley Authority (Brown's Ferry Nuclear Plant, Units 1 and 2), ALAB-341, 4 NRC 95 (1976)
- sufficiency of publication in Federal Register to put intervenors on notice about proposed action; LBP-90-5, 31 NRC 79 (1990)
- Texas Utilities Generating Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-81-36, 14 NRC 1111, 1113-14 (1981)
- effect of a party's withdrawal on litigation of its contentions; LBP-90-12, 31 NRC 430 (1990)
- In Re Thornburgh, 869 F.2d 1503, 1508 (D.C. Cir. 1989)
- standard for grant of writ of mandamus; CLI-90-3, 31 NRC 229 (1990)
- Toledo Edison Co. (Davis-Bease Nuclear Power Station), ALAB-300, 2 NRC 752, 758 (1975)
- test of finality for appeal purposes; ALAB-933, 31 NRC 496 (1990)
- Toledo Edison Co. (Davis-Bease Nuclear Power Station, Units 1, 2, and 3), ALAB-364, 5 NRC 35, 36 (1977)
- renewal of stay applications; ALAB-931, 31 NRC 362 (1990)
- Transnuclear Inc. (Ten Applications for Low-Enriched Uranium Exports to EURATOM Member Nations), CLI-77-24, 6 NRC 525, 531 (1977)
- abstract concerns or academic interest as bases for standing to intervene; LBP-90-6, 31 NRC 89 n.3 (1990)
- Union of Concerned Scientists v. NRC, 735 F.2d 1437 (D.C. Cir. 1984)
- hearing rights on materials license amendments; LBP-90-18, 31 NRC 570 (1990)
- Union of Concerned Scientists v. NRC, 735 F.2d 1437, 1444 n.12 (D.C. Cir. 1984)
- need for formal hearing on materials license suspension; ALAB-929, 31 NRC 284 (1990)
- Union of Concerned Scientists v. NRC, 824 F.2d 108 (D.C. Cir. 1987)
- cost considerations in setting and enforcing adequate-protection safety standards for nuclear facilities; DD-90-2, 31 NRC 462-63 (1990)
- distinction between first-tier and second-tier standards for emergency planning; CLI-90-2, 31 NRC 203 (1990)
- United States Energy Research and Development Administration (Clinch River Breeder Reactor Plant), CLI-76-13, 4 NRC 67, 75-76 (1976)
- scope of Commission authority to intervene and provide guidance in pending proceedings; CLI-90-3, 31 NRC 229 (1990)
- United States v. Allegheny-Ludlum Steel Corp., 406 U.S. 742, 756-57 (1972)
- statute that determines whether an on-the-record hearing is required; ALAB-929, 31 NRC 282, 283 (1990)
- United States v. Florida East Coast Ry., 410 U.S. 224, 238 (1973)
- need for formal hearing on materials license suspension; ALAB-929, 31 NRC 283 (1990)
- United States v. Pacific Gas and Electric Co., 714 F. Supp. 1039 (N.D. Ca. 1989)
- violation of antitrust provision of license; DD-90-3, 31 NRC 596 (1990)
- Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 (1973)
- effect of "reasonable nexus" test on motions to reopen; ALAB-930, 31 NRC 347, 348 (1990)

LEGAL CITATIONS INDEX

CASES

- Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 n.12 (1973)
 appeal board jurisdiction to entertain motions to reopen; ALAB-930, 31 NRC 348 (1990)
- Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 553-54 (1978)
 claims of licensing board error where claimant's own witnesses endorsed the licensing board findings; ALAB-926, 31 NRC 15 (1990)
- Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), ALAB-146, 6 AEC 631, 633 (1973)
 interpretation of "aspect" as used in section 2.714; LBP-90-6, 31 NRC 89 (1990)
- Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), ALAB-289, 2 NRC 395, 398 (1975)
 burden on intervenors where good cause is not shown for late-filed contentions; LBP-90-1, 31 NRC 34 (1990)
- Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), ALAB-522, 9 NRC 54, 57 (1979)
 interpretation of "injury in fact" from license amendment; LBP-90-18, 31 NRC 566 (1990)
 proximity to facility as basis for standing; LBP-90-3, 31 NRC 45 (1990)
- Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), ALAB-551, 9 NRC 704, 707 (1979)
 nexus requirement for appeal board jurisdiction to entertain new issues; ALAB-930, 31 NRC 346 (1990)
- Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), ALAB-584, 11 NRC 451, 453 (1980)
 showing necessary for grant of summary disposition; LBP-90-4, 31 NRC 67 (1990)
- Virginia Petroleum Jobbers Ass'n v. Federal Power Commission, 259 F.2d 921, 925 (D.C. Cir. 1958)
 criteria for stay of immediate effectiveness of orders; LBP-90-8, 31 NRC 146 (1990)
 four-factor test for grant of a stay; ALAB-931, 31 NRC 360 (1990)
 standard for grant of a stay pending appeal; CLI-90-3, 31 NRC 257 (1990)
- Virginia Sunshine Alliance v. Hendrie, 477 F. Supp. 68, 70 (D.D.C. 1979)
 speculation about accidents as irreparable injury for purpose of obtaining a stay; CLI-90-3, 31 NRC 259-60 (1990)
- Warth v. Seldin, 422 U.S. 490 (1975)
 showing necessary to establish standing to intervene in NRC proceeding; LBP-90-6, 31 NRC 89 (1990)
- Washington Public Power Supply System (WPPSS Nuclear Project No. 2), DD-84-7, 19 NRC 899, 923 (1984)
 standard for initiation of show-cause proceedings; DD-90-1, 31 NRC 331 (1990)
- Washington Public Power Supply System (WPPSS Nuclear Project No. 3), ALAB-747, 18 NRC 1167, 1175-76 (1983)
 use of show-cause proceedings to address issues that are the subject of an ongoing proceeding; LBP-90-5, 31 NRC 81 (1990)
- Westinghouse Electric Corp. (Exports to the Philippines), CLI-80-14, 11 NRC 631, 662 (1980)
 burden on movant for a stay; ALAB-928, 31 NRC 267 (1990)
- Wisconsin Electric Power Co. (Point Beach Nuclear Plant, Units 1 and 2), ALAB-739, 18 NRC 335, 338 n.4 (1983)
 penalty for failure to brief claims on appeal; ALAB-926, 31 NRC 9 (1990)
- Wisconsin Public Service Corp. (Kewaunee Nuclear Power Plant), LBP-78-24, 8 NRC 78, 83 (1978)
 burden on intervention petitioner in absence of good cause for late filing; LBP-90-5, 31 NRC 76 (1990)
- Wong Yang Sung v. McGrath, 339 U.S. 33, 50 (1950)
 formal hearings mandated by due process considerations; ALAB-929, 31 NRC 291 n.14 (1990)

LEGAL CITATIONS INDEX CASES

Wrangler Laboratories, LBP-89-39, 30 NRC 746, 761 n.18 (1989)

**entitlement of licensee to recover fees under the Equal Justice for All Act; ALAB-929, 31 NRC 279
n3 (1990)**

Yakus v. United States, 321 U.S. 414, 442, 443 (1943)

hearing rights on summary suspension order; LBP-90-17, 31 NRC 543 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 1 C.F.R. 0.103(b)
applicability of Equal Access to Justice Act to formal NRC proceedings in absence of statutory requirement for such hearings; ALAB-929, 31 NRC 289 (1990)
- 1 C.F.R. 305.88-5
endorsement of use of settlement judges; CLI-90-5, 31 NRC 340 (1990)
- 1 C.F.R. 315
applicability of Equal Access to Justice Act to formal NRC proceedings in absence of statutory requirement for such hearings; ALAB-929, 31 NRC 288 (1990)
- 1 C.F.R. 315.103
applicability of Equal Access to Justice Act to formal NRC proceedings in absence of statutory requirement for such hearings; ALAB-929, 31 NRC 289 (1990)
- 10 C.F.R. 2.103, 2.104, 2.1205(l)
prior notice and hearing requirements on materials license amendments; LBP-90-18, 31 NRC 574 (1990)
- 10 C.F.R. 2.200-2.206
effectiveness of summary suspension order pending finding of legal sufficiency of the order; LBP-90-17, 31 NRC 543 n.6 (1990)
immediate effectiveness of show-cause order; LBP-90-17, 31 NRC 542 n.2 (1990)
legal sufficiency of director's decision to issue summary license suspension order; LBP-90-17, 31 NRC 543 (1990)
- 10 C.F.R. 2.202
opportunity for formal hearing on materials license suspensions; ALAB-929, 31 NRC 287 (1990)
- 10 C.F.R. 2.202(b)
clarity of director's rationale for summary suspension order; LBP-90-17, 31 NRC 546 (1990)
hearing rights on show-cause orders; LBP-90-17, 31 NRC 544 n.10 (1990)
- 10 C.F.R. 2.202(f)
director's authority to take summary administrative action; LBP-90-17, 31 NRC 544 (1990)
hearing requirements on merits of director's summary suspension order; LBP-90-17, 31 NRC 543 (1990)
- 10 C.F.R. 2.203
Commission policy on settlement agreements; LBP-90-14, 31 NRC 459 (1990)
- 10 C.F.R. 2.206
forum for addressing concerns about changes in technical specifications; LBP-90-15, 31 NRC 504, 507 (1990)
forum for litigating concerns about prior decommissioning activities; LBP-90-3, 31 NRC 48 (1990)
radioactive effluent emissions from Big Rock Point Plant; DD-90-2, 31 NRC 462-81 (1990)
request for action concerning employee reprisals for reporting safety concerns; DD-90-1, 31 NRC 328 (1990)
standard for initiation of show-cause proceedings; DD-90-1, 31 NRC 331 (1990)
use as a vehicle for reconsideration; DD-90-2, 31 NRC 467 (1990)
use of show-cause proceedings to address issues that are the subject of an ongoing proceeding; LBP-90-5, 31 NRC 80, 81 (1990)
violation of antitrust provision of license; DD-90-3, 31 NRC 595 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 2700
 - opportunity for formal hearing on materials license suspensions; ALAB-929, 31 NRC 287 (1990)
- 10 C.F.R. 2700, *et seq.*
 - enforcement proceeding defined as adversary adjudication; ALAB-929, 31 NRC 281 (1990)
- 10 C.F.R. 2704(c)
 - disqualification of special assistant in informal proceeding; LBP-90-3, 31 NRC 52 (1990)
- 10 C.F.R. 2714
 - hearing rights on operating license amendments; LBP-90-15, 31 NRC 504 (1990)
 - interest requirements for intervention in operating license amendment proceeding; LBP-90-6, 31 NRC 88 (1990)
 - right of state to participate in license amendment process; LBP-90-15, 31 NRC 503 n.1 (1990)
 - standing to intervene in operating license amendment proceeding; LBP-90-15, 31 NRC 506 (1990)
- 10 C.F.R. 2714(a)
 - standards for reopening a record; CLI-90-6, 31 NRC 486 (1990)
- 10 C.F.R. 2714(a)(1)
 - admissibility of late-filed contentions based on previously unavailable data; LBP-90-6, 31 NRC 98, 100 (1990)
 - applicability of five-factor test for late filings to informal proceedings; LBP-90-3, 31 NRC 51 (1990)
 - applicability to motions to reopen; ALAB-930, 31 NRC 347 (1990)
 - consideration of hypothetical cases in determining whether good cause exists for late intervention; LBP-90-5, 31 NRC 77 (1990)
 - five-factor test for late intervention; LBP-90-5, 31 NRC 76 (1990)
- 10 C.F.R. 2714(a)(1)(i)-(v)
 - applicability to motions to reopen; LBP-90-12, 31 NRC 447 (1990)
 - reopening a record, standards for; LBP-90-1, 31 NRC 21, 34, 36 (1990)
- 10 C.F.R. 2714(a)(2)
 - particularity required of intervention petitions; LBP-90-6, 31 NRC 88, 89 (1990)
- 10 C.F.R. 2714(b)
 - affidavits and material supporting motions to reopen; LBP-90-12, 31 NRC 444 (1990)
 - basis-with-specificity requirement for admission of contentions; LBP-90-6, 31 NRC 91 (1990)
- 10 C.F.R. 2714(b)(2)
 - content of contentions; LBP-90-16, 31 NRC 515 (1990)
 - timeliness requirements for contentions addressing operating license amendment; LBP-90-15, 31 NRC 504 n.5 (1990)
- 10 C.F.R. 2714(b)(2)(ii), (iii)
 - definition of failure to demonstrate genuine issue of fact; LBP-90-16, 31 NRC 521 n.12, 523 n.15 (1990)
 - support required of contentions to establish genuine issue of fact; LBP-90-16, 31 NRC 521 (1990)
- 10 C.F.R. 2714(b)(2)(iii)
 - showing necessary to raise NEPA claims; LBP-90-16, 31 NRC 537 (1990)
 - statement of law or fact in contentions; LBP-90-15, 31 NRC 506 (1990)
- 10 C.F.R. 2714(d)
 - criteria for grant of intervention; LBP-90-6, 31 NRC 88 (1990)
- 10 C.F.R. 2714(e)
 - basis for deciding contentions based on purely legal issues; LBP-90-15, 31 NRC 506 (1990)
- 10 C.F.R. 2715(c)
 - right of state to participate on license amendments; LBP-90-15, 31 NRC 502 n.1 (1990)
- 10 C.F.R. 2718(h)
 - authority of presiding officers to hold settlement conferences; CLI-90-5, 31 NRC 340 (1990)
- 10 C.F.R. 2718(i)
 - discretionary interlocutory review via directed certification; ALAB-933, 31 NRC 498 n.34 (1990)
 - standard for discretionary interlocutory review; ALAB-929, 31 NRC 278 n.2 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 2.718(m)
 - authority of presiding officers to hold settlement conferences; CLI-90-5, 31 NRC 340 (1990)
 - licensing board authority to consider whether an order should be effective during pendency of a hearing; ALAB-931, 31 NRC 362 n.37 (1990)
- 10 C.F.R. 2.730(c)
 - opportunity to respond to motions for reconsideration; ALAB-931, 31 NRC 369 n.56 (1990)
- 10 C.F.R. 2.730(f)
 - licensing board authority to refer rulings to the Commission for review; ALAB-929, 31 NRC 278 (1990)
 - standard for licensing board referral of ruling for interlocutory appellate review; ALAB-929, 31 NRC 278 (1990)
- 10 C.F.R. 2.732
 - burden of proof and burden of going forward in licensing proceedings; ALAB-926, 31 NRC 15 (1990)
- 10 C.F.R. 2.734
 - effect of "reasonable nexus" test on motions to reopen; ALAB-930, 31 NRC 346-47, 348 (1990)
 - standard for grant of reopening motion; ALAB-933, 31 NRC 495 (1990); LBP-90-1, 31 NRC 21, 36 (1990); LBP-90-12, 31 NRC 443, 446-47 (1990)
- 10 C.F.R. 2.734(s)
 - safety significance determination in decision to admit late-filed contention; LBP-90-1, 31 NRC 26 (1990)
- 10 C.F.R. 2.734(s)(1)
 - discretion of presiding officer to admit safety-significant late-filed contentions; LBP-90-1, 31 NRC 26 n.25 (1990)
 - good cause requirement for late-filed contentions applied to motions to reopen; LBP-90-1, 31 NRC 34 (1990)
 - standard for grant of late-filed motion to reopen; ALAB-927, 31 NRC 139 (1990)
 - timeliness requirements for motions to reopen; LBP-90-1, 31 NRC 21 (1990)
- 10 C.F.R. 2.734(s)(3)
 - materially different result requirement for justifying motion to reopen; LBP-90-1, 31 NRC 33 (1990)
- 10 C.F.R. 2.734(d)
 - standards for reopening a record; CLI-90-6, 31 NRC 486 (1990)
- 10 C.F.R. 2.743(i)
 - official notice of state emergency planning documents; ALAB-932, 31 NRC 413 (1990)
- 10 C.F.R. 2.749
 - purpose of summary disposition; LBP-90-4, 31 NRC 66 (1990); LBP-90-6, 31 NRC 92 (1990)
 - replies to responses to summary disposition motions; LBP-90-4, 31 NRC 63 n.3 (1990)
 - summary disposition of contentions challenging changes in technical specifications; LBP-90-4, 31 NRC 56 (1990)
- 10 C.F.R. 2.749(a)
 - effect of intervenor's failure to controvert material facts; ALAB-932, 31 NRC 423 (1990)
- 10 C.F.R. 2.749(b)
 - affidavit support required for summary disposition motions; LBP-90-4, 31 NRC 69 (1990)
 - competency of intervenor's expert opposing summary disposition motion; LBP-90-4, 31 NRC 65 (1990)
 - competency of licensee expert supporting licensee's summary disposition motion; LBP-90-4, 31 NRC 63 (1990)
 - showing necessary for grant of summary disposition; LBP-90-4, 31 NRC 67 (1990)
- 10 C.F.R. 2.749(d)
 - burden on proponent of summary disposition motion; LBP-90-4, 31 NRC 69 (1990)
- 10 C.F.R. 2.758
 - litigability of challenges to Commission regulations; LBP-90-6, 31 NRC 103, 104, 114 (1990)
 - litigability of challenges to integrated surveillance plan methodology; LBP-90-4, 31 NRC 71 (1990)
- 10 C.F.R. 2.759
 - appointment of settlement judges; CLI-90-5, 31 NRC 340 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 2.762(b)
effect of pendency of one appeal on deadline for filing briefs on another; ALAB-933, 31 NRC 497 n.31 (1990)
- 10 C.F.R. 2.762(d)(1)
record citations required to support assertions of error on appeal; ALAB-926, 31 NRC 9 (1990)
- 10 C.F.R. 2.764
Commission review of full-power licensing; CLI-90-3, 31 NRC 231 (1990)
criteria for stay of immediate effectiveness of orders; LBP-90-8, 31 NRC 146 (1990)
effect of Commission immediate effectiveness review on issues still in controversy; LBP-90-12, 31 NRC 438 (1990)
immediate effectiveness review of full-power license authorization; ALAB-933, 31 NRC 494 n.6 (1990)
purpose of immediate effectiveness review; CLI-90-3, 31 NRC 224 (1990)
- 10 C.F.R. 2.764(e)(3)(i) and (f)(2)(i)
Commission authority to intervene and provide guidance in pending proceedings; CLI-90-3, 31 NRC 229 (1990)
- 10 C.F.R. 2.764(f)(2)(i)
context for Commission consideration of licensing board decision on remanded emergency planning adequacy; CLI-90-3, 31 NRC 234 n.17 (1990)
- 10 C.F.R. 2.764(g)
effect of Commission observation in context of immediate effectiveness decision on licensing board finding of emergency personnel adequacy; ALAB-932, 31 NRC 407 (1990)
identification of issues to be addressed on remand; LBP-90-12, 31 NRC 438 n.34 (1990)
- 10 C.F.R. 2.772(j)
referral of request for hearing to licensing board; LBP-90-7, 31 NRC 119 (1990)
- 10 C.F.R. 2.785(a)
delegation of authority to appeal boards to review rulings referred by licensing boards; ALAB-929, 31 NRC 278 (1990)
- 10 C.F.R. 2.785(b)(1)
delegation of authority to appeal boards to review rulings referred by licensing boards; ALAB-929, 31 NRC 278 (1990)
standard for discretionary interlocutory review; ALAB-929, 31 NRC 278 n.2 (1990)
- 10 C.F.R. 2.785(d)
authority of appeal boards to certify questions to the Commission; CLI-90-2, 31 NRC 199 (1990)
- 10 C.F.R. 2.786(a)
scope of Commission authority to intervene and provide guidance in pending proceedings; CLI-90-3, 31 NRC 229 (1990)
- 10 C.F.R. 2.788
applicability to stay of effectiveness of staff enforcement order; ALAB-931, 31 NRC 362 n.37 (1990)
criteria for stay of immediate effectiveness of orders; LBP-90-8, 31 NRC 146 (1990)
standard for grant of a stay pending appeal; CLI-90-3, 31 NRC 257 (1990)
- 10 C.F.R. 2.788(b)
page limit on stay motions; ALAB-928, 31 NRC 270 (1990)
- 10 C.F.R. 2.788(e)
applicability of stay criteria to enforcement proceedings; LBP-90-8, 31 NRC 146 (1990)
criteria for determining motion for stay pending appeal; ALAB-928, 31 NRC 267, 270 (1990)
criteria for issuance of a stay; ALAB-931, 31 NRC 360 (1990); LBP-90-18, 31 NRC 575 (1990)
- 10 C.F.R. Part 2, Subpart J
procedures for submission and consideration of requests for fees; ALAB-929, 31 NRC 281 n.6 (1990)
- 10 C.F.R. 2.1000
applicability of Equal Access to Justice Act to license suspension proceedings; ALAB-929, 31 NRC 282 (1990)
- 10 C.F.R. 2.1205(c)(2)(i)
timeliness of intervention petition for informal proceedings; LBP-90-18, 31 NRC 564 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 2.1205(d)
 - request for informal hearing by party other than applicant; CLI-90-5, 31 NRC 340 (1990)
- 10 C.F.R. 2.1205(d)(3)
 - content of request for hearing on materials license amendment; LBP-90-18, 31 NRC 567 (1990)
 - specificity of areas of concern required in request for informal hearing; LBP-90-3, 31 NRC 46, 47, 50, 51 (1990)
- 10 C.F.R. 2.1205(g)
 - applicability of 50-mile radius rule to decommissioning proceeding; LBP-90-3, 31 NRC 45, 47 (1990)
 - basis for presiding officer's ruling on request for a hearing; LBP-90-3, 31 NRC 46 (1990)
 - standard for grant of informal hearing; CLI-90-5, 31 NRC 341 (1990)
 - standing to intervene in informal proceedings; LBP-90-18, 31 NRC 564 (1990)
- 10 C.F.R. 2.1205(k)
 - right to narrow or broaden areas of concern in informal proceedings; LBP-90-3, 31 NRC 50 (1990)
 - showing necessary for raising a new issue in an informal proceeding; LBP-90-3, 31 NRC 51 (1990)
- 10 C.F.R. 2.1205(l)
 - authority of presiding officer to issue a stay; LBP-90-18, 31 NRC 575 (1990)
 - challenge to validity of; LBP-90-18, 31 NRC 572 (1990)
- 10 C.F.R. 2.1205(n)
 - appeals of rulings on requests for informal hearings; CLI-90-5, 31 NRC 341 (1990)
- 10 C.F.R. 2.1207
 - designation of presiding officer in materials license amendment proceeding; LBP-90-18, 31 NRC 562 (1990)
- 10 C.F.R. 2.1209(a)
 - authority of presiding officer to regulate the course of a proceeding; LBP-90-18, 31 NRC 577 (1990)
- 10 C.F.R. 2.1209(c)
 - authority of presiding officers to hold settlement conferences; CLI-90-5, 31 NRC 339, 340 (1990)
- 10 C.F.R. 2.1209(f)
 - authority of presiding officers to hold settlement conferences; CLI-90-5, 31 NRC 340 (1990)
- 10 C.F.R. 2.1231
 - availability of hearing file prior to board questions; CLI-90-5, 31 NRC 339 (1990)
 - contents of hearing file; LBP-90-22, 31 NRC 593 (1990)
 - need for hearing requestor to specify areas of concern prior to the filing of the hearing file in the docket; LBP-90-3, 31 NRC 46 (1990)
- 10 C.F.R. 2.1231(b)
 - authority of presiding officer to specify contents of hearing file; LBP-90-22, 31 NRC 593 (1990)
 - composition of hearing file; LBP-90-3, 31 NRC 46 n.2 (1990)
- 10 C.F.R. 2.1231(d)
 - discovery in informal proceedings; CLI-90-5, 31 NRC 339 (1990); LBP-90-18, 31 NRC 568 (1990)
- 10 C.F.R. 2.1233(a)
 - responses to board questions; CLI-90-5, 31 NRC 339 (1990)
 - written presentations in informal proceedings; LBP-90-18, 31 NRC 568 (1990)
- 10 C.F.R. 2.1233(a), (d)
 - authority of presiding officer to pose followup questions; CLI-90-5, 31 NRC 339 (1990)
- 10 C.F.R. 2.1233(b) or (c)
 - submission of board questions after parties have filed written presentations; CLI-90-5, 31 NRC 339 (1990)
- 10 C.F.R. 2.1233(c)
 - adequacy of radiation monitoring equipment for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 302 (1990)
 - dismissal of party for failure to comply with specificity requirements of; LBP-90-10, 31 NRC 316 (1990)
 - relevance of criteria for written presentations to motion to strike; LBP-90-10, 31 NRC 294 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 2.1233(d) and (e)
authority of presiding officer to strike unsupported evidence; LBP-90-10, 31 NRC 298, 299 (1990)
- 10 C.F.R. 2.1233(e)
appropriateness of summary references to newspaper articles as evidentiary support in informal proceedings; LBP-90-11, 31 NRC 323 (1990)
authority of presiding officer to strike written presentations; LBP-90-10, 31 NRC 294 (1990)
substantiation of motions to strike; LBP-90-10, 31 NRC 306 n.24 (1990)
- 10 C.F.R. 2.1237(b)
burden of proof to show grounds for a stay; LBP-90-18, 31 NRC 575 (1990)
- 10 C.F.R. 2.1239
litigability of standards and procedures applied to determine release of lands for unrestricted use; LBP-90-3, 31 NRC 49 (1990)
- 10 C.F.R. 2.1239(a)
challenges to Commission regulations; LBP-90-18, 31 NRC 574 (1990)
- 10 C.F.R. 2.1239(b)
forum for challenges to Commission regulations; LBP-90-18, 31 NRC 574 (1990)
litigability of regulatory standards; LBP-90-3, 31 NRC 49 (1990)
- 10 C.F.R. 2.1241
appointment of settlement judges; CLI-90-5, 31 NRC 340 (1990)
authority of presiding officer to hold settlement conferences; CLI-90-5, 31 NRC 339 (1990)
effect of approval of settlement agreement by presiding officer; LBP-90-19, 31 NRC 580 (1990)
- 10 C.F.R. 2.1251(d)
mechanism for presenting uncontested safety issues in informal proceedings; CLI-90-5, 31 NRC 339 n.* (1990)
- 10 C.F.R. 2.1263
authority of presiding officer to issue a stay; LBP-90-18, 31 NRC 575 (1990)
timing of stay motions; LBP-90-18, 31 NRC 577 (1990)
- 10 C.F.R. Part 2, Appendix A, II(d)
authority of presiding officer to hold settlement conferences; CLI-90-5, 31 NRC 339 (1990)
- 10 C.F.R. 9.37-9.40
fees for FOIA requests; CLI-90-1, 31 NRC 134 (1990)
- 10 C.F.R. 9.40
waiver of fees for FOIA requests; CLI-90-1, 31 NRC 134 (1990)
- 10 C.F.R. Part 20
applicability to additive effects of toxic and radioactive materials; LBP-90-11, 31 NRC 325 (1990)
population density considerations in standards for radiation exposure; LBP-90-11, 31 NRC 322, 324 (1990)
radioactive waste treatment systems at Big Rock Point Plant; DD-90-2, 31 NRC 464 (1990)
- 10 C.F.R. 20.1(b)
applicability to licensees for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
- 10 C.F.R. 20.1(c)
definition of ALARA; ALAB-926, 31 NRC 16 n.71 (1990)
- 10 C.F.R. 20.101, 20.102, 20.103, 20.104, 20.105, 20.106
population density considerations in standards for radiation exposure; LBP-90-11, 31 NRC 322 (1990)
- 10 C.F.R. Part 30
legal sufficiency of director's decision to issue summary license suspension order; LBP-90-17, 31 NRC 543 (1990)
performance of maintenance work on teletherapy equipment without NRC authorization; ALAB-929, 31 NRC 276 (1990)
scope of director's authority; LBP-90-17, 31 NRC 547 (1990)
- 10 C.F.R. 30.31-35
application and licensing requirements for general byproduct licensees; ALAB-931, 31 NRC 365 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 30.34
Commission authority to require supplemental information from a licenses and to incorporate it into the license; LBP-90-17, 31 NRC 551 n.32 (1990)
- 10 C.F.R. 30.34(b)
disparate effects of; ALAB-931, 31 NRC 367 (1990)
failure to disclose corporate restructuring as violation of; ALAB-931, 31 NRC 359 (1990)
notice and consent requirements for transfer of licenses; LBP-90-7, 31 NRC 118, 121, 128 (1990); LBP-90-8, 31 NRC 145-46 (1990)
proscription against assignment or transfer of license; ALAB-931, 31 NRC 336 (1990)
- 10 C.F.R. 30.4(d)
definition of byproduct material; LBP-90-7, 31 NRC 122 (1990)
- 10 C.F.R. 30.4(q)
definition of research and development relative to possession of byproduct material; LBP-90-7, 31 NRC 123 (1990)
- 10 C.F.R. 30.61
Commission authority to summarily suspend a license; LBP-90-17, 31 NRC 555 (1990)
- 10 C.F.R. 30.61(b), (c)
circumstances appropriate for summary license suspension; LBP-90-17, 31 NRC 547 (1990)
- 10 C.F.R. 35.26(b)
Commission authority to require supplemental information from a licenses and to incorporate it into the license; LBP-90-17, 31 NRC 551 n.32 (1990)
- 10 C.F.R. Part 40, Appendix A
litigability of interpretation and application of mill tailings regulations; ALAB-928, 31 NRC 270 (1990)
- 10 C.F.R. Part 40, Appendix A, Criterion 1
acceptability of site for disposal of mill tailings; LBP-90-9, 31 NRC 155-57, 184 (1990)
- 10 C.F.R. Part 40, Appendix A, Criterion 6
design of permanent storage cell for mill tailings; ALAB-928, 31 NRC 266 (1990)
design standard for cover for disposal cell for mill tailings; LBP-90-9, 31 NRC 192 (1990)
- 10 C.F.R. 50.7
allegations of employee reprisals at Turkey Point; DD-90-1, 31 NRC 329 (1990)
- 10 C.F.R. 50.7(a)(1)
protection of licensee employees participating as intervenors in licensing proceedings; LBP-90-5, 31 NRC 77 n.6 (1990)
- 10 C.F.R. 50.33(d)(3)(ii)
control of byproduct material licenses; ALAB-931, 31 NRC 367 (1990)
- 10 C.F.R. 50.34(b)
content of Final Safety Analysis Report; CLI-90-2, 31 NRC 212 (1990)
responsibility for final finding regarding significant impact; LBP-90-6, 31 NRC 98 (1990)
- 10 C.F.R. 50.34(b)(2)(i), 50.34(b)(6)(i), (iv), (v), 50.34(b)(8), (9), 50.34(c), 50.34(d), 50.36
content of technical specifications; LBP-90-15, 31 NRC 505, 506 (1990)
- 10 C.F.R. 50.46
exemption from emergency core cooling system single-failure criteria requirements; DD-90-2, 31 NRC 472 (1990)
limitations on discharge of liquid effluents from a nuclear plant; DD-90-2, 31 NRC 469 (1990)
- 10 C.F.R. 50.47
classification of emergency planning standards as second-tier; CLI-90-2, 31 NRC 203 (1990)
weight given to FEMA findings on adequacy of emergency planning; CLI-90-3, 31 NRC 249 n.47 (1990)
- 10 C.F.R. 50.47(a)
adequacy of emergency planning for evacuation of beach populations; CLI-90-2, 31 NRC 200 (1990)
- 10 C.F.R. 50.47(a)(1)
board error in failure to make reasonable assurance finding under; ALAB-932, 31 NRC 424 (1990)
interpretation of "adequate Protective measures"; CLI-90-2, 31 NRC 206 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- materiality of lack of implementing detail in state emergency plan to reasonable assurance finding; CLI-90-3, 31 NRC 247 (1990)
- 10 C.F.R. 50.47(a)(2)
board authority to hold hearings and make findings on adequacy of response personnel resources prior to FEMA finding; ALAB-932, 31 NRC 388, 389 (1990)
discrepancy between emergency plan approved by boards and that approved by FEMA; LBP-90-12, 31 NRC 443 (1990)
reasonable assurance standard for determining adequacy of emergency planning; CLI-90-2, 31 NRC 214 (1990)
- 10 C.F.R. 50.47(b)
basis for judging adequacy of emergency planning; CLI-90-2, 31 NRC 213, 217 (1990)
relevance of remanded emergency planning issues to licensing proceeding; CLI-90-3, 31 NRC 231 (1990)
- 10 C.F.R. 50.47(b)(1)
emergency response personnel adequacy for Seabrook; ALAB-932, 31 NRC 380 (1990)
letters of agreement, need for; CLI-90-3, 31 NRC 232 (1990)
showing of availability of emergency response personnel; ALAB-932, 31 NRC 384 n.36 (1990)
- 10 C.F.R. 50.47(b)(3)
letters of agreement, need for; CLI-90-3, 31 NRC 232 (1990)
- 10 C.F.R. 50.47(b)(5)
letters of agreement with local radio stations for public notification during radiological emergencies, need for; LBP-90-1, 31 NRC 20, 24 (1990)
- 10 C.F.R. 50.47(b)(8)
facilities and equipment required to support emergency response; CLI-90-3, 31 NRC 253 (1990)
identification of special-needs population for evacuation planning; CLI-90-3, 31 NRC 235 (1990)
- 10 C.F.R. 50.47(b)(10)
evacuation time estimates for advanced life support patients; CLI-90-3, 31 NRC 240, 250 (1990)
facilities and equipment required to support emergency response; CLI-90-3, 31 NRC 253 (1990)
need to include sheltering as protective action in emergency plans; CLI-90-3, 31 NRC 244 (1990)
requirement to development protective action guidelines; ALAB-932, 31 NRC 408 (1990)
- 10 C.F.R. 50.47(b)(12)
challenge to applicants' arrangements for medical services for contaminated injured individuals; ALAB-932, 31 NRC 420 (1990)
- 10 C.F.R. 50.47(c)
context for Commission consideration of licensing board decision on remanded emergency planning adequacy; CLI-90-3, 31 NRC 234 n.17 (1990)
- 10 C.F.R. 50.47(c)(1)
effect of appeal board remand on license issuance; CLI-90-3, 31 NRC 228 (1990)
effect of remand on full-power authorization; ALAB-932, 31 NRC 419 (1990)
interpretation of section 50.47(b)(12) requirements; ALAB-932, 31 NRC 421 n.249 (1990)
- 10 C.F.R. 50.47(c)(1)(iii)
applicability of realism/best efforts presumption to teacher behavior during emergencies; ALAB-932, 31 NRC 404 n.145 (1990)
- 10 C.F.R. 50.47(c)(1)(iii)(B)
best-efforts assumption applied to state participation in emergency response where state has not participated in emergency planning; LBP-90-1, 31 NRC 30 (1990)
- 10 C.F.R. 50.48
applicability of criminal sanctions under; CLI-90-2, 31 NRC 208 (1990)
- 10 C.F.R. 50.49
evaluation of 40-year plant life from initial operation; LBP-90-6, 31 NRC 106 (1990)
- 10 C.F.R. 50.51
procedure for extending an operating license; LBP-90-6, 31 NRC 93 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 50.55a
 - litigability of concerns dealing with applicability of regulations; LBP-90-6, 31 NRC 103 (1990)
 - periods of operation beyond period of operating license as major federal actions; LBP-90-6, 31 NRC 95 (1990)
- 10 C.F.R. 50.55a(c)(4)
 - conformance with codes established after plant construction; LBP-90-6, 31 NRC 104 (1990)
- 10 C.F.R. 50.55a(g)(4)
 - standard for surveillance of safety valves; LBP-90-16, 31 NRC 534 (1990)
- 10 C.F.R. 50.57(d)(1)-(9)
 - authority to issue temporary operating licenses; LBP-90-6, 31 NRC 95 n.11 (1990)
- 10 C.F.R. 50.58(b)(6)
 - litigability of challenges to no significant hazards consideration determination; LBP-90-6, 31 NRC 90 (1990)
- 10 C.F.R. 50.60(a)
 - materials requirements for pressure containment boundary; LBP-90-4, 31 NRC 60 (1990)
- 10 C.F.R. 50.61
 - scope of litigable issues in license amendment proceeding; LBP-90-4, 31 NRC 70 (1990)
- 10 C.F.R. 50.62
 - independent auxiliary feedwater system requirement for pressurized water reactors; LBP-90-16, 31 NRC 528 n.22 (1990)
- 10 C.F.R. 50.63
 - demonstration of acceptability of alternative AC power sources; LBP-90-16, 31 NRC 523 n.15 (1990)
- 10 C.F.R. 50.63(c)(4)
 - deadline for compliance with requirement for alternative ac power sources; LBP-90-16, 31 NRC 523 n.15 (1990)
- 10 C.F.R. 50.72
 - resumption of operation following hot shutdown; LBP-90-16, 31 NRC 525 (1990)
- 10 C.F.R. 50.73
 - plant shutdowns related to reactor coolant system pressure; LBP-90-16, 31 NRC 526 (1990)
- 10 C.F.R. 50.80(a)
 - disparate effects of; ALAB-931, 31 NRC 367 (1990)
- 10 C.F.R. 50.90
 - applicability to request to recapture period of construction by use of an operating license amendment; LBP-90-6, 31 NRC 94 (1990)
- 10 C.F.R. 50.91(a)(4)
 - no significant hazards determination for extension of pressure/temperature limits; LBP-90-4, 31 NRC 56 (1990)
- 10 C.F.R. 50.91(b)(3)
 - right of state to participate on license amendments; LBP-90-15, 31 NRC 502 n.1 (1990)
- 10 C.F.R. 50.92
 - no significant hazards consideration for materials license amendments; LBP-90-18, 31 NRC 572 (1990)
 - standard for determining license amendment requests; LBP-90-6, 31 NRC 103 (1990)
- 10 C.F.R. 50.92(c)
 - significant hazards considerations in license amendment; LBP-90-15, 31 NRC 503 (1990)
- 10 C.F.R. Part 50, Appendix I
 - radioactive waste treatment systems at Big Rock Point Plant; DD-90-2, 31 NRC 464 (1990)
- 10 C.F.R. Part 50, Appendix K, §LDI
 - exemption from emergency core cooling system single-failure criteria requirements; DD-90-2, 31 NRC 472 (1990)
- 10 C.F.R. Part 50, Appendix A, GDC 31
 - extension of pressure/temperature limits; LBP-90-4, 31 NRC 56, 60 (1990)
- 10 C.F.R. Part 50, Appendix B
 - applicability to for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 296-97 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. Part 50, Appendix E, IV
 - evacuation time estimate requirements; ALAB-932, 31 NRC 408 (1990)
 - evacuation time estimates for advanced life support patients; CLI-90-3, 31 NRC 240 (1990)
 - responsibility for evacuation time estimate preparation; ALAB-932, 31 NRC 419 (1990)
- 10 C.F.R. Part 50, Appendix E, IV.D
 - letters of agreement with local radio stations for public notification during radiological emergencies, need for; LBP-90-1, 31 NRC 20, 24 (1990)
- 10 C.F.R. Part 50, Appendix E, IV.D.3
 - interpretation of 15-minute emergency notification requirement; LBP-90-1, 31 NRC 31 (1990)
 - showing of availability of emergency response personnel; ALAB-932, 31 NRC 384 n.36 (1990)
- 10 C.F.R. Part 50, Appendix G
 - service period for fracture toughness values; LBP-90-4, 31 NRC 60 (1990)
- 10 C.F.R. Part 50, Appendix H
 - conduct and adequacy of integrated surveillance program; LBP-90-4, 31 NRC 66 (1990)
- 10 C.F.R. Part 50, Appendix H, II.C
 - litigability of challenges to NRC-approved Integrated Surveillance Program; LBP-90-4, 31 NRC 57 (1990)
 - use of irradiated test materials from one test reactor to predict fracture toughness of materials in another reactor; LBP-90-4, 31 NRC 61 (1990)
- 10 C.F.R. Part 50, Appendix H, II.C.1
 - similarity of design and operating features of reactors in integrated surveillance plan; LBP-90-4, 31 NRC 70 (1990)
- 10 C.F.R. Part 50, Appendix H, II.C.3
 - contingency requirement for use of integrated surveillance program; LBP-90-4, 31 NRC 61 (1990)
- 10 C.F.R. 51.14(a)
 - categorical exclusions from EIS requirements; LBP-90-16, 31 NRC 537 n.31 (1990)
 - responsibility for determining need for EIS on proposed action; LBP-90-16, 31 NRC 537 (1990)
- 10 C.F.R. 51.20
 - categorization of actions by type of environmental review required; LBP-90-6, 31 NRC 97 (1990)
 - EIS requirements for plants licensed prior to effectiveness of NEPA; DD-90-2, 31 NRC 467 (1990)
 - EIS requirements for proposed actions; LBP-90-16, 31 NRC 537 (1990)
 - EIS requirements for technical specification amendments; LBP-90-16, 31 NRC 536 (1990)
- 10 C.F.R. 51.20(a)(7)
 - EIS requirements for materials license renewal; LBP-90-10, 31 NRC 298 (1990)
- 10 C.F.R. 51.20(b)
 - environmental review requirements for construction period recapture amendment; LBP-90-6, 31 NRC 97 (1990)
 - types of actions requiring preparation of an environmental impact statement; LBP-90-6, 31 NRC 96 (1990)
- 10 C.F.R. 51.21
 - categorization of actions by type of environmental review required; LBP-90-6, 31 NRC 97 (1990)
 - responsibility for determining need for EIS on proposed action; LBP-90-16, 31 NRC 537 (1990)
 - types of actions requiring and environmental assessment; LBP-90-6, 31 NRC 96 (1990)
- 10 C.F.R. 51.22
 - categorization of actions by type of environmental review required; LBP-90-6, 31 NRC 97 (1990)
- 10 C.F.R. 51.22(b)
 - responsibility for determining need for EIS on proposed action; LBP-90-16, 31 NRC 537 (1990)
- 10 C.F.R. 51.22(c)
 - types of actions requiring and environmental assessment; LBP-90-6, 31 NRC 96 (1990)
- 10 C.F.R. 51.22(c)(9)
 - EIS requirements for changes in inspection or surveillance requirements; LBP-90-16, 31 NRC 537 n.33 (1990)
 - responsibility for determining need for EIS on proposed action; LBP-90-16, 31 NRC 537 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 51.22(c)(10)
 - interpretation of major federal action; LBP-90-16, 31 NRC 537 n.33 (1990)
 - responsibility for determining need for EIS on proposed action; LBP-90-16, 31 NRC 537 (1990)
- 10 C.F.R. 51.22(c)(14)(v)
 - EIS and environmental assessment requirements for materials license amendment; LBP-90-18, 31 NRC 569 (1990)
- 10 C.F.R. 51.31
 - responsibility for determining need for environmental impact statement; LBP-90-6, 31 NRC 97 (1990)
- 10 C.F.R. 51.32
 - no significant impact finding for materials license renewal; LBP-90-10, 31 NRC 298 (1990)
- 10 C.F.R. 51.45
 - environmental analyses required for extension of operating license to recapture construction period; LBP-90-6, 31 NRC 94 (1990)
 - environmental review requirements for construction period recapture amendment; LBP-90-6, 31 NRC 97 (1990)
- 10 C.F.R. 51.52
 - litigability of challenges to Commission regulations; LBP-90-6, 31 NRC 103 (1990)
- 10 C.F.R. 51.52, Table S-4
 - applicability to environmental impacts of transportation of waste; LBP-90-3, 31 NRC 49 (1990)
- 10 C.F.R. 51.53
 - environmental review requirements for construction period recapture amendment; LBP-90-6, 31 NRC 97 (1990)
- 10 C.F.R. 51.53(a)
 - issues proscribed in operating license proceedings; LBP-90-6, 31 NRC 95 (1990)
 - litigability of spent fuel shipments in operating license amendment proceeding to recapture construction period; LBP-90-6, 31 NRC 95 (1990)
- 10 C.F.R. 51.95(a)
 - issues proscribed in operating license proceedings; LBP-90-6, 31 NRC 95 (1990)
- 10 C.F.R. 51.102(c)
 - documents forming complete environmental record of decision; ALAB-926, 31 NRC 17 n.78 (1990)
- 10 C.F.R. 51.106(c)
 - issues proscribed in operating license proceedings; LBP-90-6, 31 NRC 95 (1990)
- 10 C.F.R. 61.102
 - applicability to materials license renewal for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 299 (1990)
- 10 C.F.R. Part 61
 - licensing of low-level radioactive waste sites; DD-90-2, 31 NRC 478 (1990)
- 10 C.F.R. Part 61
 - performance at low-level radioactive waste sites; DD-90-2, 31 NRC 477 (1990)
- 10 C.F.R. 70.4(r)
 - quality assurance requirements for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 296 (1990)
- 10 C.F.R. 70.22(s)(2), (4)
 - content of application for license for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 305 n.21 (1990)
- 10 C.F.R. 70.22(s)(2), (6), (7), and (8)
 - earthquake and brushfire considerations in quality assurance program for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 303 (1990)
- 10 C.F.R. 70.22(f)
 - applicability of quality assurance criteria to for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 296-97 (1990)
 - earthquake and brushfire considerations in quality assurance program for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 304 (1990)

LEGAL CITATIONS INDEX REGULATIONS

- 10 C.F.R. 70.22(i)(3)(xiii)
applicability to cumulative effects from radioactive and chemical substances from plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 301 (1990)
- 10 C.F.R. 70.22(k)
applicability to licensees for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
- 10 C.F.R. 70.23(a)(3)
adequacy of radiation monitoring equipment for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 302 (1990)
- 10 C.F.R. 70.23(a)(3), (4)
earthquake and brushfire considerations in quality assurance program for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 303 (1990)
- 10 C.F.R. 70.31(d)
applicability to licensees for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
legality of materials license amendment; LBP-90-18, 31 NRC 570 (1990)
- 10 C.F.R. 70.51
applicability to licensees for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
- 10 C.F.R. 70.57
materials control and accounting requirements for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 (1990)
- 10 C.F.R. 70.58
applicability to licensees for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
- 10 C.F.R. 70.59
reporting requirements for effluent releases from plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 (1990)
- 10 C.F.R. 73.23(a)(2)-(4)
applicability to licensees for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
- 10 C.F.R. 73.57
applicability to licensees for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
- 10 C.F.R. 100.11
distinction between emergency planning regulations and siting and engineering design requirements; CLI-90-3, 31 NRC 208 (1990)
- 40 C.F.R. Part 61
applicability to materials license renewal for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 299 (1990)
- 40 C.F.R. Part 61, Subpart T
applicability to thorium mill tailings; LBP-90-9, 31 NRC 192 (1990)
- 40 C.F.R. Part 190
applicability to materials license renewal for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 299 (1990)
- 40 C.F.R. 190.10
applicability to materials license renewal for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 299 (1990)
- 40 C.F.R. 192.32(b)(1), 192.41 (1989)
design standard for cover for disposal cell for mill tailings; LBP-90-9, 31 NRC 192 (1990)
- 40 C.F.R. Part 1504
applicability to NRC relative to interagency disputes; LBP-90-9, 31 NRC 153 (1990)

LEGAL CITATIONS INDEX STATUTES

- Administrative Procedure Act, 5 U.S.C. 504(b)(2)
 - statutory requirements for on-the-record hearings; ALAB-929, 31 NRC 280 n.4 (1990)
- Administrative Procedure Act, 5 U.S.C. 554(a)
 - requirements for on-the-record hearings; ALAB-929, 31 NRC 280, 282 (1990)
- Administrative Procedure Act, 9(b), 5 U.S.C. 558(c)
 - adequacy of information available to director and reasonableness of decision based on that information; LBP-90-17, 31 NRC 555 (1990)
 - applicability to license revocations; ALAB-929, 31 NRC 285-86, 288 (1990)
 - circumstances appropriate for summary license suspension; LBP-90-17, 31 NRC 555 n.52 (1990)
 - director's authority to take summary administrative action; LBP-90-17, 31 NRC 544 (1990)
- Atomic Energy Act, 42 U.S.C. 2014(e)(2) (1982)
 - classification of thorium mill tailings as byproduct material; LBP-90-9, 31 NRC 152 (1990)
- Atomic Energy Act, 57, 42 U.S.C. 2077(c)(2)
 - legality of materials license amendment; LBP-90-18, 31 NRC 570 (1990)
- Atomic Energy Act, 81
 - legal basis for director's summary suspension order; LBP-90-17, 31 NRC 546 (1990)
 - proscription against assignment or transfer of byproduct material licenses; ALAB-931, 31 NRC 363 (1990)
- Atomic Energy Act, 84(a), 42 U.S.C. 2114
 - cost-benefit balancing for management of thorium mill tailings; LBP-90-9, 31 NRC 158 (1990)
- Atomic Energy Act, 84(a)(1), 42 U.S.C. 2114(a)(1)
 - cost-benefit balancing for management of thorium mill tailings; LBP-90-9, 31 NRC 158, 163 (1990)
- Atomic Energy Act, 104, 42 U.S.C. 2234
 - NRC jurisdiction over parties and alienability of licenses; LBP-90-7, 31 NRC 126 (1990)
- Atomic Energy Act, 161(b), (c), (o)
 - legal basis for director's summary suspension order; LBP-90-17, 31 NRC 546 (1990)
- Atomic Energy Act, 161(b), (i)
 - interpretation of first-tier protection standards for emergency planning; CLI-90-2, 31 NRC 202-03 (1990)
- Atomic Energy Act, 161(b), (i), and (o)
 - classification of emergency planning standards as second-tier; CLI-90-2, 31 NRC 203-05, 208 (1990)
- Atomic Energy Act, 181, 42 U.S.C. 2231
 - applicability of Administrative Procedure Act provisions to materials license suspensions; ALAB-929, 31 NRC 285, 288 (1990)
 - director's authority to take summary administrative action; LBP-90-17, 31 NRC 544 (1990)
- Atomic Energy Act, 182
 - emergency planning requirements as adequate protection standards; ALAB-932, 31 NRC 380, 420 (1990)
 - legal basis for director's summary suspension order; LBP-90-17, 31 NRC 546 (1990)
- Atomic Energy Act, 182(a), 42 U.S.C. 2232
 - Commission authority to require supplemental information from a licensee and to incorporate it into the license; LBP-90-17, 31 NRC 551 n.32 (1990)
 - interpretation of first-tier protection standards for emergency planning; CLI-90-2, 31 NRC 202 (1990)

LEGAL CITATIONS INDEX

STATUTES

- responsibilities of licensee for plutonium processing and fuel fabrication plant; LBP-90-10, 31 NRC 297 n.12 (1990)
- Atomic Energy Act, 183, 42 U.S.C. 2233
- proscription against assignment or transfer of license; ALAB-931, 31 NRC 356 (1990); LBP-90-7, 31 NRC 121 (1990)
- Atomic Energy Act, 183c, 42 U.S.C. 2233(c)
- failure to disclose corporate restructuring as violation of; ALAB-931, 31 NRC 359, 368 (1990)
- Atomic Energy Act, 184, 42 U.S.C. 2234
- failure to disclose corporate restructuring as violation of; ALAB-931, 31 NRC 359, 362, 364, 370 (1990)
- notice and consent requirements for transfer of licenses; LBP-90-7, 31 NRC 118, 120, 128 (1990); LBP-90-8, 31 NRC 145-46 (1990)
- Atomic Energy Act, 186
- adequacy of information available to director and reasonableness of decision based on that information; LBP-90-17, 31 NRC 555 (1990)
- applicability of Administrative Procedure Act provisions to license revocations; ALAB-929, 31 NRC 285 (1990)
- Commission authority to summarily suspend a license; LBP-90-17, 31 NRC 555 n.52 (1990)
- legal basis for director's summary suspension order; LBP-90-17, 31 NRC 546 (1990)
- Atomic Energy Act, 186(b)
- circumstances appropriate for summary license suspension; LBP-90-17, 31 NRC 555 n.52 (1990)
- need for formal hearing on materials license suspension; ALAB-929, 31 NRC 287 (1990)
- Atomic Energy Act, 189(b), 42 U.S.C. 2239(a)(1)
- hearing rights on materials license amendments; LBP-90-18, 31 NRC 570-71 (1990)
- Atomic Energy Act, 189a, 42 U.S.C. 2239(a)
- concepts of standing applied to NRC proceeding; LBP-90-6, 31 NRC 89 (1990)
- hearing rights on materials license amendments; LBP-90-18, 31 NRC 570 (1990)
- hearing rights on operating license amendments; LBP-90-15, 31 NRC 504 (1990)
- interest requirements for intervention in operating license amendment proceeding; LBP-90-6, 31 NRC 88 (1990)
- litigability of challenges to no significant hazards consideration determination; LBP-90-6, 31 NRC 90 (1990)
- Atomic Energy Act, 189a(1), 42 U.S.C. 2239(a)(1)
- determination of whether an on-the-record hearing is required; ALAB-929, 31 NRC 282-85 (1990)
- need for formal hearing on materials license suspension; ALAB-929, 31 NRC 283 n.8 (1990)
- Atomic Energy Act, 191
- periods of operation beyond period of operating license as major federal actions; LBP-90-6, 31 NRC 95 (1990)
- Clean Air Act, 309, 42 U.S.C. 7609
- jurisdiction over proposed disposal cell; LBP-90-9, 31 NRC 153 n.9 (1990)
- Communications Act of 1934, 310(d), 47 U.S.C. 310(d)
- transfer of licenses without agency approval; ALAB-931, 31 NRC 364 (1990)
- Energy and Water Development Appropriations Act, Pub. L. No. 100-371, 502, 102 Stat. 857 (1988)
- restrictions on award of attorneys' fees; ALAB-929, 31 NRC 277 (1990)
- Energy Reorganization Act, 210
- forum for complaints from licensee employees; LBP-90-16, 31 NRC 513 n.4 (1990)
- purpose of employee protection provision; LBP-90-5, 31 NRC 77-78 (1990)
- restrictive language in settlement agreement; CLI-90-1, 31 NRC 133 (1990)
- retaliation against employees for reporting safety concerns; DD-90-1, 31 NRC 329 (1990)
- Equal Access to Justice Act, 5 U.S.C. 504
- entitlement of licensee in enforcement action to attorneys' fees; ALAB-929, 31 NRC 277 (1990)
- Equal Access to Justice Act, 5 U.S.C. 504(a)(1), (b)(1)(C)
- definition of "adversary adjudication"; ALAB-929, 31 NRC 279 (1990)

LEGAL CITATIONS INDEX

STATUTES

- Equal Access to Justice Act, 5 U.S.C. 504(b)(1)(C)(ii)
types of decisions covered by; ALAB-929, 31 NRC 280 (1990)
- Equal Access to Justice Act, 5 U.S.C. 504(c)(1)
applicability to formal NRC proceedings in absence of statutory requirement for such hearings;
ALAB-929, 31 NRC 288 (1990)
procedures for submission and consideration of requests for fees; ALAB-929, 31 NRC 281 (1990)
- Low-Level Radioactive Waste Policy Amendments Act of 1985, Title I, Pub. L. 99-240
state responsibility for disposal of low-level radioactive wastes; DD-90-2, 31 NRC 477 (1990)
- Low-Level Radioactive Waste Policy Amendments Act of 1985, 5(d)(2)(c)
state obligations regarding waste generated in that state; LBP-90-6, 31 NRC 93 (1990)
- National Environmental Policy Act, 42 U.S.C. 4321
EIS requirements for plants licensed prior to effectiveness of NEPA; DD-90-2, 31 NRC 467 (1990)
- National Environmental Policy Act, 4332(C)
EIS requirements for materials license renewal; LBP-90-10, 31 NRC 298 (1990)
- National Environmental Policy Act, 102(2)(C), 42 U.S.C. 4332(2)(C)
consideration of alternatives to construction period recapture amendment; LBP-90-6, 31 NRC 99 (1990)
- National Environmental Policy Act, 102(2)(E), 42 U.S.C. 4332(2)(E)
standard for consideration of alternatives to proposed licensing action; LBP-90-6, 31 NRC 99 (1990)
- NRC Authorization Act, Pub. L. No. 97-415, 20, 96 Stat. 2067, 2079 (1983)
cost-benefit balancing for management of thorium mill tailings; LBP-90-9, 31 NRC 158 (1990)
- Pub. L. No. 404, ch. 324, 9(b), 60 Stat. 237, 242 (1946)
need for formal hearing on materials license suspension; ALAB-929, 31 NRC 286 (1990)
- Pub. L. No. 96-481, 203(c), 94 Stat. 2325 (1980)
awards in administrative actions; ALAB-929, 31 NRC 280 (1990)

LEGAL CITATIONS INDEX OTHERS

- 18 Am. Jur. 2d Corporations §§55-62 (1985)
determination of involvement of parent corporation in subsidiary to determine liability for decontamination; ALAB-931, 31 NRC 368 n.54 (1990)
- Davis, Administrative Law §7.08
circumstances appropriate for summary license suspension; LBP-90-17, 31 NRC 544 (1990)
- 2 K. Davis, Administrative Law Treatise §12:10, at 450 (2d ed. 1979)
applicability of APA section 558(c) to license revocations; ALAB-929, 31 NRC 287 (1990)
- Federal Rule of Civil Procedure 56
procedure for summary disposition; LBP-90-4, 31 NRC 66 n.6 (1990)
- 12 W. Fletcher, Cyclopedia of the Law of Private Corporations §5463, at 310 (rev. 1985)
transfer of shares of stock as transfer of corporate assets; ALAB-931, 31 NRC 363 (1990)
- H.R. Rep. No. 120, 99th Cong., 1st Sess., pt. 1, at 4, reprinted in 1985 U.S. Code Cong. & Ad. News 132, 133
purpose of Equal Access to Justice Act; ALAB-929, 31 NRC 280 (1990)
- H.R. Rep. No. 884, 97th Cong., 2d Sess. 471 (1982)
cost-benefit balancing for management of thorium mill tailings; LBP-90-9, 31 NRC 161, 163 (1990)
- H.R. Rep. No. 884, 97th Cong., 2d Sess. 47, reprinted in 1982 U.S. Code Cong. & Ad. News 3603, 3617
cost-benefit balancing for management of thorium mill tailings; LBP-90-9, 31 NRC 158 n.19, 163 n.30 (1990)
- H.R. Rep. No. 1418, 96th Cong., 2d Sess. 5-6, reprinted in 1980 U.S. Code Cong. & Admin. News 4984
purpose of Equal Access to Justice Act; ALAB-929, 31 NRC 280 (1990)
- H.R. Rep. No. 1418, 96th Cong. 2d Sess. 18, reprinted in 1980 U.S. Code Cong. & Ad. News 4953, 4984, 4997
substantial justification standard for judicial review of discretionary administrative actions; LBP-90-17, 31 NRC 545 n.11 (1990)
- H. Rep. No. 1980, 79th Cong. 2d Sess. (1946), reprinted in Administrative Procedure Act: Legislative History, S. Doc. No. 248, 79th Cong. 2d Sess. 233, 275 (1946)
exception to requirement for advance notice of license suspension; LBP-90-17, 31 NRC 555 n.52 (1990)
- H.S. Marks & G.F. Trowbridge, Framework for Atomic Strategy: A Commentary on the Atomic Energy Act of 1954, at C-69 n.68 (1955)
applicability of section 184 of AEA to licensees rather than licensors; ALAB-931, 31 NRC 363 (1990)
- 1 NRC Rules and Regulations 2 SC 52, 56
basis for deciding contentions based on purely legal issues; LBP-90-15, 31 NRC 506 (1990)
- S. Rep. No. 752, 79th Cong. 1st Sess. (1945), reprinted in Administrative Procedure Act: Legislative History, S. Doc. No. 248, 79th Cong. 2d Sess. 185, 211-12 (1946)
exception to requirement for advance notice of license suspension; LBP-90-17, 31 NRC 555 n.52 (1990)
- S. Rep. No. 1677, 87th Cong., 2d Sess., reprinted in 1962 U.S. Code Cong. & Admin. News 2207, 2213
need for formal hearing on materials license suspension; ALAB-929, 31 NRC 284 (1990)

LEGAL CITATIONS INDEX

OTHERS

- 1 Staff of Joint Committee on Atomic Energy, 87th Cong., 1st Sess., Improving the AEC Regulatory Process 72 (Joint Comm. Print 1961)
need for formal hearing on materials license suspension; ALAB-929, 31 NRC 284 (1990)
- Webster's Third New International Dictionary of the English Language, 1976 Ed.
definition of untenable relative to director's decision on summary license suspension; LBP-90-17, 31 NRC 555 (1990)

SUBJECT INDEX

ACCIDENTS

- emergency planning considerations; CLI-90-2, 31 NRC 197 (1990)
- remote and speculative, probability-based definition; CLI-90-4, 31 NRC 333 (1990)

ADDITIVE EFFECTS

- of radioactive and chemical wastes; LBP-90-10, 31 NRC 293 (1990); LBP-90-11, 31 NRC 320 (1990)

ADJUDICATORY PROCEEDINGS

- consideration of issues involved in rulemaking; CLI-90-2, 31 NRC 197 (1990)
- due process; CLI-90-3, 31 NRC 219 (1990)

ADMINISTRATIVE JUDGE

- settlement authority of; CLI-90-5, 31 NRC 337 (1990)

ADMINISTRATIVE PROCEDURE ACT

- formal hearing requirements under; ALAB-929, 31 NRC 271 (1990)

ADVANCED LIFE SUPPORT PATIENTS

- evacuation time estimates for; CLI-90-3, 31 NRC 219 (1990); LBP-90-12, 31 NRC 427 (1990); LBP-90-20, 31 NRC 581 (1990)

ALTERNATIVES

- economic issues in consideration of; ALAB-928, 31 NRC 263 (1990)

AMERICIUM

- in unsealed sources, handling of; LBP-90-18, 31 NRC 559 (1990)

ANTITRUST

- refusal to provide appropriate service schedules and tariffs; DD-90-3, 31 NRC 595 (1990)
- refusal to provide partial-requirements wholesale power and transmission services; DD-90-3, 31 NRC 595 (1990)

APPEAL BOARDS

- action on new matters; ALAB-930, 31 NRC 343 (1990)
- discretionary interlocutory review; ALAB-931, 31 NRC 350 (1990)
- obligation to accept referred rulings; ALAB-929, 31 NRC 271 (1990)
- standard for overturning a licensing board's findings; ALAB-926, 31 NRC 1 (1990)
- standards of review; ALAB-926, 31 NRC 1 (1990)
- stay authority; ALAB-928, 31 NRC 263 (1990)

APPEALS

- stay pending resolution of; CLI-90-3, 31 NRC 219 (1990)
- test of finality for; ALAB-933, 31 NRC 491 (1990)

APPEALS, INTERLOCUTORY

- authority to review referred rulings; ALAB-929, 31 NRC 271 (1990)
- via directed certification, test for; ALAB-933, 31 NRC 491 (1990)

AQUIFERS

- silurian dolomite, recharge estimates for; LBP-90-9, 31 NRC 150 (1990)

ATOMIC ENERGY ACT

- adequate protection standard under section 182; ALAB-932, 31 NRC 371 (1990)
- hearing requirements for license revocations and suspensions; ALAB-929, 31 NRC 271 (1990)
- hearing rights on operating license amendments; LBP-90-15, 31 NRC 501 (1990)
- inalienability of licenses; ALAB-931, 31 NRC 350 (1990)

SUBJECT INDEX

- licensees duties under; LBP-90-7, 31 NRC 116 (1990)
- reporting requirements for licensees; LBP-90-7, 31 NRC 116 (1990)
- technical specifications for power reactors, content of; LBP-90-15, 31 NRC 501 (1990)
- transfer of byproduct material licenses; ALAB-931, 31 NRC 350 (1990)
- transfer of ownership, notification and consent requirements for; LBP-90-7, 31 NRC 116 (1990)
- BEACH POPULATIONS**
 - sheltering considerations in emergency planning; CLI-90-3, 31 NRC 219 (1990); LBP-90-12, 31 NRC 427 (1990); LBP-90-20, 31 NRC 581 (1990)
- BOARDS**
 - See Appeal Boards; Licensing Boards
- BORON**
 - BAT concentration surveillance; LBP-90-16, 31 NRC 509 (1990)
 - concentration in reactor coolant system; LBP-90-16, 31 NRC 509 (1990)
- BRIEFS**
 - appellate, record support required in; ALAB-926, 31 NRC 1 (1990)
 - standards for pro se intervenors; ALAB-926, 31 NRC 1 (1990)
- BURDEN OF PROOF**
 - distinguished from burden of going forward; ALAB-926, 31 NRC 1 (1990)
- BYPRODUCT MATERIAL LICENSES**
 - transfer of control of; ALAB-931, 31 NRC 350 (1990)
- BYPRODUCT MATERIALS LICENSE AMENDMENT**
 - withdrawal of request for hearing; LBP-90-19, 31 NRC 579 (1990)
- CONGREGATE CARE FACILITIES**
 - adequacy of; CLI-90-3, 31 NRC 219 (1990)
- CONSERVATISMS**
 - in analyses of impact of engineered disposal cell for thorium mill tailings; LBP-90-9, 31 NRC 150 (1990)
- CONTAINMENT BUILDING**
 - compressed air system, connection of backup air supply to; LBP-90-2, 31 NRC 38 (1990)
- CONTAMINATION**
 - plutonium possession in form of; LBP-90-10, 31 NRC 293 (1990)
- CONTENTIONS**
 - of withdrawing intervenor, adoption by another party; LBP-90-12, 31 NRC 427 (1990)
 - standard for admission of; LBP-90-16, 31 NRC 509 (1990)
- CONTROL RODS**
 - drop time; LBP-90-16, 31 NRC 509 (1990)
- COST-BENEFIT ANALYSES**
 - in consideration of alternatives to engineered disposal cell for thorium mill tailings; ALAB-928, 31 NRC 263 (1990)
- COSTS**
 - operating and maintenance; DD-90-2, 31 NRC 461 (1990)
- CYANIDE**
 - in waste materials at West Chicago site; LBP-90-9, 31 NRC 150 (1990)
- DECISION**
 - appellate, effect of immediate effectiveness review on; ALAB-932, 31 NRC 371 (1990)
 - licensing board, as amendment of final environmental statement; ALAB-926, 31 NRC 1 (1990)
- DECOMMISSIONING**
 - funds, adequacy of, relative to irreparable injury claims for purpose of obtaining a stay; CLI-90-3, 31 NRC 219 (1990)
- DECOMMISSIONING PROCEEDING**
 - standing to intervene in; LBP-90-3, 31 NRC 40 (1990)
- DECONTAMINATION**
 - enforcement orders, applicability of section 2.788 to; LBP-90-8, 31 NRC 143 (1990)

SUBJECT INDEX

DIRECTED CERTIFICATION

- appeal board discretionary authority; ALAB-933, 31 NRC 491 (1990)
- of licensing board denial of motion to dismiss for lack of jurisdiction; ALAB-931, 31 NRC 350 (1990)

DISCRIMINATION

- against licensee employees for reporting safety concerns; DD-90-1, 31 NRC 327 (1990)

DISQUALIFICATION

- of special assistant in informal proceeding; LBP-90-3, 31 NRC 40 (1990)

DOCUMENTATION

- of spills and incidents, need for, for special nuclear materials license renewal; LBP-90-10, 31 NRC 293 (1990)

DOSE CONSEQUENCES

- consideration in evaluating emergency plans; CLI-90-2, 31 NRC 197 (1990)

EARTHQUAKES

- consideration in special nuclear materials license renewal proceeding; LBP-90-10, 31 NRC 293 (1990)

ECONOMIC CONSIDERATIONS

- in decisionmaking on compliance with emergency planning safety regulations; CLI-90-3, 31 NRC 219 (1990)
- in enforcement of safety standards; DD-90-2, 31 NRC 461 (1990)

EMERGENCIES

- human behavior in; ALAB-932, 31 NRC 371 (1990)

EMERGENCY BROADCAST SYSTEM

- requirement to use to notify public of radiological emergency; LBP-90-1, 31 NRC 19 (1990)

EMERGENCY EXERCISES

- onsite, request to reopen record on; CLI-90-3, 31 NRC 219 (1990)

EMERGENCY PLANNING

- accident considerations in; CLI-90-2, 31 NRC 197 (1990)
- as adequate protection standard; ALAB-932, 31 NRC 371 (1990)
- basis for requirement; CLI-90-2, 31 NRC 197 (1990)
- economic considerations in decisionmaking on adequacy of; CLI-90-3, 31 NRC 219 (1990)
- evacuation time estimates, regulatory guidance for; ALAB-932, 31 NRC 371 (1990)
- first-tier protection afforded by; CLI-90-2, 31 NRC 197 (1990)
- medical services arranges; ALAB-932, 31 NRC 371 (1990)
- need for FEMA findings for final licensing decision; ALAB-932, 31 NRC 371 (1990)
- objectives of; CLI-90-2, 31 NRC 197 (1990)
- post-hearing resolution of issues; CLI-90-3, 31 NRC 219 (1990)
- response personnel, standard for judging adequacy of; ALAB-932, 31 NRC 371 (1990)
- special-needs survey for; LBP-90-12, 31 NRC 427 (1990)
- status of, for license authorization; CLI-90-3, 31 NRC 219 (1990)

EMERGENCY PLANS

- content on protective measures; ALAB-932, 31 NRC 371 (1990)
- content, sufficiency of; ALAB-932, 31 NRC 371 (1990)
- state and local government responsibilities; ALAB-932, 31 NRC 371 (1990)
- weight given to FEMA findings on adequacy of; CLI-90-2, 31 NRC 197 (1990)

EMERGENCY RESPONSE PERSONNEL

- regulatory guidance on; ALAB-932, 31 NRC 371 (1990)

EMPLOYEES

- See Licensee Employees

ENERGY REORGANIZATION ACT

- settlement agreements under section 210; CLI-90-1, 31 NRC 131 (1990)

ENFORCEMENT

- of administrative subpoena, denial of request for protective order to stay; CLI-90-1, 31 NRC 131 (1990)

ENFORCEMENT ORDER

- reconsideration of stay of effectiveness of; LBP-90-8, 31 NRC 143 (1990)

SUBJECT INDEX

ENFORCEMENT PROCEEDINGS

jurisdiction rulings that determine a party's status in; ALAB-931, 31 NRC 350 (1990)

ENVIRONMENTAL ASSESSMENT

for special nuclear materials license renewal, need for; LBP-90-10, 31 NRC 293 (1990)

ENVIRONMENTAL IMPACT STATEMENT

for construction period recapture amendment, need for; LBP-90-6, 31 NRC 85 (1990)

requirements for plants licensed prior to statute's implementation; DD-90-2, 31 NRC 461 (1990)

ENVIRONMENTAL REPORTS

requirements for construction period recapture amendments; LBP-90-6, 31 NRC 85 (1990)

EQUAL ACCESS TO JUSTICE ACT

applicability to materials license suspension proceedings; ALAB-929, 31 NRC 271 (1990)

interpretation of adversary proceeding; ALAB-929, 31 NRC 271 (1990)

EVACUATION TIME ESTIMATES

for advanced life support patients; CLI-90-3, 31 NRC 219 (1990); LBP-90-12, 31 NRC 427 (1990);

LBP-90-20, 31 NRC 581 (1990)

incorporation of vehicles hidden from aerial observation in; LBP-90-20, 31 NRC 581 (1990)

regional approach to creation of; CLI-90-3, 31 NRC 219 (1990)

regulatory guidance for; ALAB-932, 31 NRC 371 (1990)

EVALUATION

of special-needs populations; CLI-90-3, 31 NRC 219 (1990)

EVIDENCE

burden of going forward with; ALAB-926, 31 NRC 1 (1990)

duty of parties to provide; ALAB-932, 31 NRC 371 (1990)

inferences and quantum of proof; ALAB-932, 31 NRC 371 (1990)

surrebuttal testimony, admissibility of; ALAB-932, 31 NRC 371 (1990)

EXPERT WITNESSES

weight given to testimony of; ALAB-932, 31 NRC 371 (1990)

FEDERAL EMERGENCY MANAGEMENT AGENCY

weight given to findings on adequacy of emergency plans; CLI-90-2, 31 NRC 197 (1990)

FEDERAL REGISTER

sufficiency of publication of notice in, to alert intervenors of licensing actions; LBP-90-5, 31 NRC 73 (1990)

FEMA FINDINGS

need for, for final licensing decision; ALAB-932, 31 NRC 371 (1990)

FINAL ENVIRONMENTAL STATEMENT

licensing board decision as amendment of; ALAB-926, 31 NRC 1 (1990)

FINALITY

test of, for purposes of appeal; ALAB-933, 31 NRC 491 (1990)

FIRES

plutonium releases during; LBP-90-10, 31 NRC 293 (1990); LBP-90-18, 31 NRC 559 (1990)

FRACTURE TOUGHNESS

Charpy V-notch test for; LBP-90-4, 31 NRC 54 (1990)

GASEOUS WASTE SYSTEM

at Big Rock Point; DD-90-2, 31 NRC 461 (1990)

GROUNDWATER

effect of engineered disposal cell for thorium mill tailings on; LBP-90-9, 31 NRC 150 (1990)

HARASSMENT

documentation of allegations; LBP-90-16, 31 NRC 509 (1990)

HEARING FILES

contents of; LBP-90-22, 31 NRC 592 (1990)

HEARING REQUESTS

withdrawal of; LBP-90-19, 31 NRC 579 (1990)

SUBJECT INDEX

HEARING RIGHTS

on operating license amendments; LBP-90-15, 31 NRC 501 (1990)

HEARINGS

for license revocations and suspensions; ALAB-929, 31 NRC 271 (1990)

for materials licenses, type required; ALAB-929, 31 NRC 271 (1990)

formal, determinants of need for; ALAB-929, 31 NRC 271 (1990)

See also Informal Proceedings

HUMAN BEHAVIOR

in emergencies; ALAB-932, 31 NRC 371 (1990)

IMMEDIATE EFFECTIVENESS REVIEW

effect on appeal board decisions; ALAB-932, 31 NRC 371 (1990)

purpose of; CLI-90-3, 31 NRC 219 (1990)

INFORMAL PROCEEDINGS

disqualification of special assistant; LBP-90-3, 31 NRC 40 (1990)

hearing file contents; LBP-90-22, 31 NRC 592 (1990)

motions to strike in; LBP-90-10, 31 NRC 293 (1990); LBP-90-11, 31 NRC 320 (1990)

organizational standing in; LBP-90-18, 31 NRC 559 (1990)

standing to intervene in; LBP-90-18, 31 NRC 559 (1990)

timing of written questions in; CLI-90-5, 31 NRC 337 (1990)

written orders in; CLI-90-5, 31 NRC 337 (1990)

INTEGRATED SURVEILLANCE PROGRAM

similar versus identical operating features for compliance with regulations; LBP-90-4, 31 NRC 54 (1990)

INTERPRETATION

of 10 C.F.R. 2.730(c); ALAB-931, 31 NRC 350 (1990)

of 10 C.F.R. Part 40, Appendix A, Criterion 1; LBP-90-9, 31 NRC 150 (1990)

of 10 C.F.R. 50.47(b); CLI-90-2, 31 NRC 197 (1990)

of 10 C.F.R. 50.47(b)(12); ALAB-932, 31 NRC 371 (1990)

of 10 C.F.R. Part 50, Appendix E; ALAB-932, 31 NRC 371 (1990)

of adversary proceeding; ALAB-929, 31 NRC 271 (1990)

of "aspect" in 10 C.F.R. 2.714; LBP-90-6, 31 NRC 85 (1990)

statutory, starting point for; ALAB-929, 31 NRC 271 (1990)

INTERVENORS

pro se, standards for briefs; ALAB-926, 31 NRC 1 (1990)

withdrawal of; LBP-90-13, 31 NRC 456 (1990)

withdrawal of, because of settlement agreement; LBP-90-21, 31 NRC 589 (1990)

INTERVENTION

aspect requirement for; LBP-90-6, 31 NRC 85 (1990)

INTERVENTION, LATE

by licensee employee, fear of retaliation from licensee as good cause for; LBP-90-5, 31 NRC 73 (1990)

five-factor test for; LBP-90-5, 31 NRC 73 (1990)

good cause for; LBP-90-5, 31 NRC 73 (1990)

newly arising information as good cause for; LBP-90-5, 31 NRC 73 (1990)

reliance on another party to represent one's interests as good cause for; LBP-90-5, 31 NRC 73 (1990)

weight given to potential for broadening of issues in determining grant of; LBP-90-5, 31 NRC 73 (1990)

weight given to potential for delay in determining grant of; LBP-90-5, 31 NRC 73 (1990)

JURISDICTION

appeal board, reasonable nexus requirement; ALAB-930, 31 NRC 343 (1990)

effect of licensing board view of, on basic structure of proceeding; ALAB-931, 31 NRC 350 (1990)

NRC, where ownership has been transferred without consent of NRC; LBP-90-7, 31 NRC 116 (1990)

LEACHATE

from engineered disposal cell for thorium mill tailings; LBP-90-9, 31 NRC 150 (1990)

SUBJECT INDEX

LETTERS OF AGREEMENT

- scope of remanded issues; LBP-90-12, 31 NRC 427 (1990)
- with schools and school personnel; CLI-90-3, 31 NRC 219 (1990)

LICENSE CONDITIONS

- antitrust, violation of; DD-90-3, 31 NRC 595 (1990)

LICENSE SUSPENSIONS

- hearing requirements for; ALAB-929, 31 NRC 271 (1990)

LICENSEE

- qualifications to handle special nuclear materials; LBP-90-10, 31 NRC 293 (1990)

LICENSEE EMPLOYEES

- late intervention based on fear of retaliation from licensee; LBP-90-5, 31 NRC 73 (1990)
- reprisals against, for reporting safety concerns; DD-90-1, 31 NRC 327 (1990)
- restriction on reporting of safety concerns through settlement agreement; CLI-90-1, 31 NRC 131 (1990)

LICENSEES

- corporate parent and subsidiary relationships; ALAB-931, 31 NRC 350 (1990)
- transfer of ownership, constraints on; LBP-90-7, 31 NRC 116 (1990)

LICENSES

- transfer or assignment of; ALAB-931, 31 NRC 350 (1990)

LICENSING BOARDS

- authority to refer rulings; ALAB-929, 31 NRC 271 (1990)
- discretion in managing proceedings; ALAB-932, 31 NRC 371 (1990)
- view of own jurisdiction, effect on basic structure of proceeding; ALAB-931, 31 NRC 350 (1990)

MATERIALS ACCOUNTABILITY

- by plutonium processing and fuel fabrication facility; LBP-90-10, 31 NRC 293 (1990)

MATERIALS LICENSE AMENDMENT

- to allow disposal of thorium mill tailings in engineered disposal cell; LBP-90-9, 31 NRC 150 (1990)
- to dispose of thorium mill tailings in engineered disposal cell; ALAB-928, 31 NRC 263 (1990)

MATERIALS LICENSE SUSPENSION PROCEEDINGS

- applicability of Equal Access to Justice Act to; ALAB-929, 31 NRC 271 (1990)

MEDICAL SERVICES

- interpretation of regulatory requirements for; ALAB-932, 31 NRC 371 (1990)

MILL TAILINGS

- thorium, disposal in engineered disposal cell; ALAB-928, 31 NRC 263 (1990)

MOTION TO REOPEN

- on proposed operating license amendment application, denial of; LBP-90-2, 31 NRC 38 (1990)

MOTIONS TO STRIKE

- in informal proceedings; LBP-90-10, 31 NRC 293 (1990); LBP-90-11, 31 NRC 320 (1990)

NATIONAL ENVIRONMENTAL POLICY ACT

- economic issues in consideration of alternatives; ALAB-928, 31 NRC 263 (1990)
- EIS requirements for plants licensed prior to statute's enactment; DD-90-2, 31 NRC 461 (1990)
- environmental report requirements for construction period recapture amendments; LBP-90-6, 31 NRC 85 (1990)
- licensing board decision as amendment of final environmental statement; ALAB-926, 31 NRC 1 (1990)
- remote and speculative events; CLI-90-4, 31 NRC 333 (1990)
- worst-case analysis; CLI-90-4, 31 NRC 333 (1990)

NEPTUNIUM

- in unsealed sources, handling of; LBP-90-18, 31 NRC 559 (1990)

NEUTRON FLUENCE

- effect on reactor vessel; LBP-90-4, 31 NRC 54 (1990)

NIL DUCTILITY TRANSITION

- reference temperature for; LBP-90-4, 31 NRC 54 (1990)

SUBJECT INDEX

NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

- litigability of; LBP-90-6, 31 NRC 85 (1990)
- on technical specifications change; LBP-90-15, 31 NRC 501 (1990)

NOTIFICATION

- of NRC of transfer of facility ownership, requirements for; LBP-90-7, 31 NRC 116 (1990)

NOTIFICATION

- of public of radiological emergency, compliance of applicant's plan with regulatory requirements; LBP-90-1, 31 NRC 19 (1990)
- of special facilities in an emergency; CLI-90-3, 31 NRC 219 (1990)

NRC STAFF

- post-hearing resolution of issues; CLI-90-3, 31 NRC 219 (1990)

NUCLEAR PROLIFERATION CONCERNS

- as basis for standing in informal proceeding; LBP-90-18, 31 NRC 559 (1990)

NUCLEAR REGULATORY COMMISSION

- authority to treat separate corporate entities as one for purposes of regulation; ALAB-931, 31 NRC 350 (1990)
- enforcement of subpoenas; CLI-90-1, 31 NRC 131 (1990)
- jurisdiction where ownership has been transferred without consent of NRC; LBP-90-7, 31 NRC 116 (1990)
- supervisory authority; CLI-90-3, 31 NRC 219 (1990)

NUREG-0654

- guidance on emergency response personnel resources; ALAB-932, 31 NRC 371 (1990)
- guidance on evacuation time estimates; ALAB-932, 31 NRC 371 (1990)

OFFICIAL NOTICE

- of state emergency response plan; ALAB-932, 31 NRC 371 (1990)

OPERATING LICENSE AMENDMENT

- change in technical specification for pressure/temperature limits; LBP-90-4, 31 NRC 54 (1990)
- construction period recapture; LBP-90-6, 31 NRC 85 (1990)
- for disposal of accident-generated water at TMI-2; ALAB-926, 31 NRC 1 (1990)
- hearing rights on; LBP-90-15, 31 NRC 501 (1990)
- withdrawal of application for; LBP-90-2, 31 NRC 38 (1990)

OPERATING LICENSE PROCEEDINGS

- multiple-board, pendency of reopening motion before one board as excuse for untimely filing of motion to reopen before the other board; ALAB-927, 31 NRC 137 (1990)

OPERATING LICENSES

- authorization, effect of appeal board decision of; ALAB-932, 31 NRC 371 (1990)
- authorization, pending completion of remand proceeding; CLI-90-3, 31 NRC 219 (1990)

ORDERS

- written, in informal proceedings; CLI-90-5, 31 NRC 337 (1990)

PLUTONIUM

- dispersion through fire or explosion, model of; LBP-90-18, 31 NRC 559 (1990)
- liquid, handling at 500°C; LBP-90-10, 31 NRC 293 (1990)
- possession in form of contamination; LBP-90-10, 31 NRC 293 (1990)
- releases during fires; LBP-90-10, 31 NRC 293 (1990)
- source packaging for shipment of; LBP-90-10, 31 NRC 293 (1990)

POPULATION DENSITY

- considerations in special nuclear materials license renewal proceeding; LBP-90-10, 31 NRC 293 (1990); LBP-90-11, 31 NRC 320 (1990)

PREDICTIONS

- of impact of engineered disposal cell for thorium mill tailings, nature of supporting analyses for; LBP-90-9, 31 NRC 150 (1990)

PRESSURE/TEMPERATURE LIMITS

- for reactor vessels; LBP-90-4, 31 NRC 54 (1990)

SUBJECT INDEX

PRESSURIZED WATER REACTOR

- combined limit for thermal power, pressurizer pressure, and highest operating loop coolant temperature; LBP-90-16, 31 NRC 509 (1990)
- mode reduction requirements, change in; LBP-90-16, 31 NRC 509 (1990)
- outage time for one channel of heat tracing; LBP-90-16, 31 NRC 509 (1990)

PROBABILISTIC RISK ASSESSMENT

- for Big Rock Point; DD-90-2, 31 NRC 461 (1990)

PROOF

- See Burden of Proof

PROTECTIVE MEASURES

- interim, for beach populations; LBP-90-20, 31 NRC 581 (1990)

PROTECTIVE ORDER

- to stay enforcement of administrative subpoena, denial of; CLI-90-1, 31 NRC 131 (1990)

QUALITY ASSURANCE

- applicability to plutonium processing and fuel fabrication facilities; LBP-90-10, 31 NRC 293 (1990)

RADIATION DETECTION

- in soil and water, tests for; LBP-90-10, 31 NRC 293 (1990)

RADIATION MONITORING EQUIPMENT

- compliance with section 2.1233(c); LBP-90-10, 31 NRC 293 (1990)

RADIOACTIVE DOSE

- to workers; DD-90-2, 31 NRC 461 (1990)

RADIOACTIVE WASTE, LOW-LEVEL

- land disposal of; DD-90-2, 31 NRC 461 (1990)

RADIOLOGICAL CONTINGENCY PLANS

- for plutonium processing and fuel fabrication facility; LBP-90-10, 31 NRC 293 (1990)

RADWASTE SYSTEMS

- at Big Rock Point; DD-90-2, 31 NRC 461 (1990)

REACTOR COOLANT SYSTEM

- boron concentration; LBP-90-16, 31 NRC 509 (1990)

REACTOR OPERATOR

- qualifications, request to reopen record on; CLI-90-3, 31 NRC 219 (1990)

REACTOR VESSELS

- pressure/temperature limits for; LBP-90-4, 31 NRC 54 (1990)

RECONSIDERATION

- of stay pendente lite of immediate effectiveness of enforcement order; LBP-90-8, 31 NRC 143 (1990)

REFERRAL OF RULINGS

- by licensing boards, authority for; ALAB-929, 31 NRC 271 (1990)

REGULATIONS

- challenges to; LBP-90-4, 31 NRC 54 (1990)
- interpretation of "aspect" in 10 C.F.R. 2.714; LBP-90-6, 31 NRC 85 (1990)
- interpretation of 10 C.F.R. 50.47(a)(2); ALAB-932, 31 NRC 371 (1990)
- interpretation of 10 C.F.R. 50.47(b); CLI-90-2, 31 NRC 197 (1990)
- interpretation of 10 C.F.R. 50.47(b)(12); ALAB-932, 31 NRC 371 (1990)
- interpretation of 10 C.F.R. Part 40, Appendix A, Criterion 1; LBP-90-9, 31 NRC 150 (1990)
- interpretation of 10 C.F.R. Part 50, Appendix E; ALAB-932, 31 NRC 371 (1990)
- methods of compliance with; LBP-90-4, 31 NRC 54 (1990)
- waiver of; CLI-90-2, 31 NRC 197 (1990)

REMAND

- effect on license authorization; CLI-90-3, 31 NRC 219 (1990)

REOPENING A RECORD

- application of five-factor test for admission of late-filed contentions to motion for; LBP-90-1, 31 NRC 19 (1990)
- evidentiary support required for; CLI-90-6, 31 NRC 483 (1990)

SUBJECT INDEX

- on operator qualifications during low-power testing; CLI-90-3, 31 NRC 219 (1990)
- standard for grant of untimely motion for; ALAB-927, 31 NRC 137 (1990)
- standards for; ALAB-930, 31 NRC 343 (1990); ALAB-933, 31 NRC 491 (1990); CLI-90-6, 31 NRC 483 (1990); LBP-90-1, 31 NRC 19 (1990); LBP-90-12, 31 NRC 427 (1990)
- timeliness of motions for; CLI-90-6, 31 NRC 483 (1990); LBP-90-12, 31 NRC 427 (1990)
- REPORTING REQUIREMENTS**
 - for transfer of facility ownership; LBP-90-7, 31 NRC 116 (1990)
- REVIEW**
 - discretionary interlocutory, standard for; ALAB-931, 31 NRC 350 (1990)
 - of show-cause determination, standard for; LBP-90-17, 31 NRC 540 (1990)
 - See also Immediate Effectiveness Review
- REVIEW, APPELLATE**
 - scope of; ALAB-932, 31 NRC 371 (1990)
 - standards of; ALAB-926, 31 NRC 1 (1990)
 - weight given to licensing board findings; ALAB-926, 31 NRC 1 (1990)
- RISKS**
 - during out-of-service time for pressurized water reactor; LBP-90-16, 31 NRC 509 (1990)
- RULEMAKINGS**
 - forum for; CLI-90-2, 31 NRC 197 (1990)
- RULES OF PRACTICE**
 - admissibility of contention asserting need for EIS for construction period recapture amendment; LBP-90-6, 31 NRC 85 (1990)
 - appeal board authority to review referred rulings; ALAB-929, 31 NRC 271 (1990)
 - appeal board decisions, effect on license authorization; ALAB-932, 31 NRC 371 (1990)
 - appeal board standard for overturning a licensing board's findings; ALAB-926, 31 NRC 1 (1990)
 - appellate review, scope of; ALAB-932, 31 NRC 371 (1990)
 - burden of going forward to support contention opposing license or amendment; ALAB-926, 31 NRC 1 (1990)
 - burden on movant for stay; ALAB-928, 31 NRC 263 (1990)
 - burden on opponent of summary disposition; LBP-90-4, 31 NRC 54 (1990)
 - challenges to Commission regulations; CLI-90-2, 31 NRC 197 (1990); LBP-90-4, 31 NRC 54 (1990)
 - contention admission requirements; LBP-90-16, 31 NRC 509 (1990)
 - criteria for stay of agency action; LBP-90-8, 31 NRC 143 (1990)
 - decommissioning funds; CLI-90-3, 31 NRC 219 (1990)
 - discretionary interlocutory review; ALAB-931, 31 NRC 350 (1990)
 - emergency planning standards for license authorization; CLI-90-3, 31 NRC 219 (1990)
 - evidentiary support required for motions to reopen; CLI-90-6, 31 NRC 483 (1990)
 - expert witnesses, weight given to testimony of; ALAB-932, 31 NRC 371 (1990)
 - Federal Register publication as sufficient notice for purpose of timely intervention; LBP-90-5, 31 NRC 73 (1990)
 - finality of decisions; ALAB-933, 31 NRC 491 (1990)
 - harassment and intimidation, documentation requirements; LBP-90-16, 31 NRC 509 (1990)
 - hearing files, contents of; LBP-90-22, 31 NRC 592 (1990)
 - hearing requirements for materials licenses; ALAB-929, 31 NRC 271 (1990)
 - immediate effectiveness review, effect on appeal board decisions; ALAB-932, 31 NRC 371 (1990)
 - immediate effectiveness review, purpose of; CLI-90-3, 31 NRC 219 (1990)
 - injury-in-fact showing to obtain standing; LBP-90-18, 31 NRC 559 (1990)
 - interest requirements of 10 C.F.R. 2.714; LBP-90-6, 31 NRC 85 (1990)
 - interlocutory appeals via directed certification, tests for; ALAB-933, 31 NRC 491 (1990)
 - interlocutory review of supplemental order connected with first order; ALAB-931, 31 NRC 350 (1990)
 - interpretation of 10 C.F.R. 2.730(c); ALAB-931, 31 NRC 350 (1990)
 - jurisdiction rulings that determine a party's status in an enforcement proceeding; ALAB-931, 31 NRC 350 (1990)

SUBJECT INDEX

- late intervention, good cause for; LBP-90-5, 31 NRC 73 (1990)
- late-filed contentions; CLI-90-6, 31 NRC 483 (1990)
- license authorization pending completion of remand proceeding; CLI-90-3, 31 NRC 219 (1990)
- litigability of significant hazards consideration determination; LBP-90-6, 31 NRC 85 (1990)
- mandatory relief, standard for grant of; CLI-90-3, 31 NRC 219 (1990)
- motions to strike in informal proceedings; LBP-90-10, 31 NRC 293 (1990); LBP-90-11, 31 NRC 320 (1990)
- multiple board proceedings, pendency of reopening motion before one board as excuse for untimely filing of motion to reopen before the other board; ALAB-927, 31 NRC 137 (1990)
- official notice of state emergency response plan; ALAB-932, 31 NRC 371 (1990)
- organizational standing in informal proceedings; LBP-90-18, 31 NRC 559 (1990)
- organizational standing, basis for; LBP-90-16, 31 NRC 509 (1990)
- record support required in appellate briefs; ALAB-926, 31 NRC 1 (1990)
- reopening a record, criteria for; ALAB-933, 31 NRC 491 (1990); CLI-90-6, 31 NRC 483 (1990)
- reopening of record on new information; ALAB-930, 31 NRC 343 (1990)
- settlement agreements; LBP-90-10, 31 NRC 293 (1990); CLI-90-5, 31 NRC 337 (1990)
- show-cause proceedings as a vehicle for relitigation of issues; DD-90-2, 31 NRC 461 (1990)
- standard for review of show-cause determination; LBP-90-17, 31 NRC 540 (1990)
- standards for reopening a record; ALAB-927, 31 NRC 137 (1990)
- standing to intervene in decommissioning proceeding; LBP-90-3, 31 NRC 40 (1990)
- standing to intervene in operating license amendment proceeding; LBP-90-6, 31 NRC 85 (1990)
- standing to intervene in Subpart L proceedings; LBP-90-18, 31 NRC 559 (1990)
- stay of agency action; ALAB-931, 31 NRC 350 (1990)
- stay pending appeal; ALAB-928, 31 NRC 263 (1990); CLI-90-3, 31 NRC 219 (1990)
- stay request when information relevant to need for stay is not available; LBP-90-18, 31 NRC 559 (1990)
- summary affirmance, motions for; ALAB-933, 31 NRC 491 (1990)
- summary disposition motions; ALAB-932, 31 NRC 371 (1990)
- summary disposition, purpose of; LBP-90-4, 31 NRC 54 (1990)
- timeliness of motions to reopen; CLI-90-6, 31 NRC 483 (1990)
- timing of written questions in informal proceedings; CLI-90-5, 31 NRC 337 (1990)
- waiver of impropriety briefed issues; ALAB-926, 31 NRC 1 (1990)
- weight given to licensing board findings by appeal boards; ALAB-926, 31 NRC 1 (1990)
- withdrawal of basis for standing by nonlawyer; LBP-90-16, 31 NRC 509 (1990)
- written orders in informal hearings; CLI-90-5, 31 NRC 337 (1990)
- SETTLEMENT AGREEMENTS**
 - administrative judge's involvement in; CLI-90-5, 31 NRC 337 (1990)
 - between NRC staff and licensee; LBP-90-14, 31 NRC 458 (1990)
 - deferral of activities in a proceeding to allow for negotiations; LBP-90-21, 31 NRC 589 (1990)
 - restriction of employee's ability to report safety concerns; CLI-90-1, 31 NRC 131 (1990)
- SHELTERING**
 - of transient beach populations; LBP-90-12, 31 NRC 427 (1990); LBP-90-20, 31 NRC 581 (1990); CLI-90-3, 31 NRC 219 (1990)
- SHOW-CAUSE PROCEEDINGS**
 - as a vehicle for relitigation of issues; DD-90-2, 31 NRC 461 (1990)
 - standard for institution of; DD-90-1, 31 NRC 327 (1990)
- SOVEREIGN IMMUNITY**
 - waiver of; ALAB-929, 31 NRC 271 (1990)
- SPECIAL ASSISTANT**
 - in informal proceeding, disqualification of; LBP-90-3, 31 NRC 40 (1990)
- SPECIAL FACILITIES**
 - notification in an emergency; CLI-90-3, 31 NRC 219 (1990)

SUBJECT INDEX

SPECIAL NUCLEAR MATERIALS

- licenses qualifications to handle; LBP-90-10, 31 NRC 293 (1990)
- possession in form of contamination; LBP-90-10, 31 NRC 293 (1990)

SPECIAL-NEEDS POPULATIONS

- identification of; CLI-90-3, 31 NRC 219 (1990)
- survey adequacy, for emergency planning purposes; LBP-90-12, 31 NRC 427 (1990)

SPENT FUEL POOL EXPANSION

- accident considerations in; CLI-90-4, 31 NRC 333 (1990)

STANDING TO INTERVENE

- abstract concerns or academic interest as basis for; LBP-90-6, 31 NRC 85 (1990)
- in decommissioning proceeding; LBP-90-3, 31 NRC 40 (1990)
- in operating license amendment proceeding; LBP-90-6, 31 NRC 85 (1990)
- injury-in-fact showing to obtain; LBP-90-18, 31 NRC 559 (1990)
- organizational, basis for; LBP-90-16, 31 NRC 509 (1990)
- to intervene in informal proceedings; LBP-90-18, 31 NRC 559 (1990)
- withdrawal of organization's basis for, by nonlawyer; LBP-90-16, 31 NRC 509 (1990)

STATES

- standing to intervene; LBP-90-6, 31 NRC 85 (1990)

STAY

- of agency action, criteria for grant of; ALAB-931, 31 NRC 350 (1990)
- burden of persuasion on movant for; ALAB-928, 31 NRC 263 (1990)
- criteria for grant of; LBP-90-8, 31 NRC 143 (1990)
- irreparable injury standard; CLI-90-3, 31 NRC 219 (1990)
- pendente lite of immediate effectiveness of enforcement order, reconsideration of; LBP-90-8, 31 NRC 143 (1990)
- pending appeal; CLI-90-3, 31 NRC 219 (1990)
- request for, when information relevant to need for stay is not available; LBP-90-18, 31 NRC 559 (1990)

SUBPOENAS

- administrative, enforcement of; CLI-90-1, 31 NRC 131 (1990)

SUMMARY AFFIRMANCE

- vehicle for seeking merits disposition; ALAB-933, 31 NRC 491 (1990)

SUMMARY DISPOSITION

- burden on opponent of; ALAB-932, 31 NRC 371 (1990); LBP-90-4, 31 NRC 54 (1990)
- purpose of; LBP-90-4, 31 NRC 54 (1990)

SUMMARY LICENSE SUSPENSION

- standard for review of; LBP-90-17, 31 NRC 540 (1990)

SURREBUTTAL TESTIMONY

- admissibility of; ALAB-932, 31 NRC 371 (1990)

TECHNICAL SPECIFICATIONS

- change in pressure/temperature limits; LBP-90-4, 31 NRC 54 (1990)
- content of; LBP-90-15, 31 NRC 501 (1990)
- cycle-specific core operating limits and other cycle-specific fuel information, removal from; LBP-90-15, 31 NRC 501 (1990)

TELETHERAPY UNITS

- maintenance activities by unlicensed individuals; LBP-90-17, 31 NRC 540 (1990)

TEMPERATURE

- for nil ductility transition; LBP-90-4, 31 NRC 54 (1990)

TERMINATION OF PROCEEDING

- because of withdrawal of intervenor; LBP-90-13, 31 NRC 456 (1990)

TESTS

- Charpy V-notch, for fracture toughness; LBP-90-4, 31 NRC 54 (1990)

SUBJECT INDEX

THORIUM MILL TAILINGS

disposal in engineered disposal cell; ALAB-928, 31 NRC 263 (1990); LBP-90-9, 31 NRC 150 (1990)

TRANSMITTERS

Rosemount, defects in; ALAB-930, 31 NRC 343 (1990); CLI-90-6, 31 NRC 483 (1990)

TRANSPORTATION SERVICES

emergency, identification of individuals needing; CLI-90-3, 31 NRC 219 (1990)

VIOLATIONS

of antitrust license conditions; DD-90-3, 31 NRC 595 (1990)

WAIVER

of rules or regulations; CLI-90-2, 31 NRC 197 (1990)

of sovereign immunity, construction of Equal Access to Justice Act for; ALAB-929, 31 NRC 271 (1990)

WASTE DISPOSAL

evaporation by forced heating of accident-generated water at TMI-2; ALAB-926, 31 NRC 1 (1990)

of thorium mill tailings in engineered disposal cell; ALAB-928, 31 NRC 263 (1990)

of thorium mill tailings in engineered disposal cell; LBP-90-9, 31 NRC 150 (1990)

WATER

accident-generated, at TMI-2, disposal of; ALAB-926, 31 NRC 1 (1990)

See also Groundwater

WHISTLEBLOWERS

reprisals against; DD-90-1, 31 NRC 327 (1990)

WRIT OF HABEAS CORPUS

standard for grant of; CLI-90-3, 31 NRC 219 (1990)

FACILITY INDEX

- BIG ROCK POINT PLANT; Docket No. 50-155
 REQUEST FOR ACTION; May 4, 1990; DIRECTOR'S DECISION UNDER 10 C.F.R. §2.206; DD-90-2, 31 NRC 461 (1990)
- BLOOMSBURG SITE DECONTAMINATION; Docket Nos. 030-05980, 030-05981, 030-05982, 030-08335, 030-08444
 ENFORCEMENT ACTION; January 29, 1990; ORDER (Denying Motions to Dismiss NRC Orders Issued March 16, 1989, and August 21, 1989, for Lack of Jurisdiction); LBP-90-7, 31 NRC 116 (1990)
 ENFORCEMENT ACTION; February 8, 1990; ORDER; LBP-90-8, 31 NRC 143 (1990)
 ENFORCEMENT ACTION; April 23, 1990; MEMORANDUM AND ORDER; ALAB-931, 31 NRC 350 (1990)
- CALVERT CLIFFS INDEPENDENT SPENT FUEL STORAGE INSTALLATION; Docket Nos. 72-8, 50-317, 50-318
 MATERIALS LICENSE; May 15, 1990; MEMORANDUM AND ORDER (Termination of Proceeding); LBP-90-13, 31 NRC 456 (1990)
- DIABLO CANYON NUCLEAR POWER PLANT, Units 1 and 2; Docket Nos. 50-275-A, 50-323-A
 ANTI-TRUST; June 14, 1990; DIRECTOR'S DECISION UNDER 10 C.F.R. §2.206; DD-90-3, 31 NRC 595 (1990)
- ONE FACTORY ROW, GENEVA, OH 44041; Docket No. 30-16055-SP
 SPECIAL PROCEEDING; March 30, 1990; DECISION; ALAB-929, 31 NRC 271 (1990)
 SUSPENSION OF LICENSE; June 12, 1990; MEMORANDUM AND ORDER (Granting NRC Staff Motion for Summary Disposition and Terminating Proceeding); LBP-90-17, 31 NRC 540 (1990)
- PATHFINDER ATOMIC PLANT; Docket No. 30-05004-MLA
 MATERIALS LICENSE AMENDMENT; January 10, 1990; MEMORANDUM AND ORDER (Request for Hearing); LBP-90-3, 31 NRC 40 (1990)
 MATERIALS LICENSE AMENDMENT; June 21, 1990; ORDER TERMINATING PROCEEDING; LBP-90-19, 31 NRC 579 (1990)
- PERRY NUCLEAR POWER PLANT, Unit 1; Docket No. 50-440-OLA
 OPERATING LICENSE AMENDMENT; June 11, 1990; MEMORANDUM AND ORDER (Granting Petition to Intervene); LBP-90-15, 31 NRC 501 (1990)
- ROCKETDYNE DIVISION; Docket No. 70-25
 MATERIALS LICENSE AMENDMENT; March 19, 1990; MEMORANDUM AND ORDER (Motion to Strike); LBP-90-10, 31 NRC 293 (1990)
 MATERIALS LICENSE AMENDMENT; March 30, 1990; MEMORANDUM AND ORDER (Reconsideration: Homeowners and LAPSRS); LBP-90-11, 31 NRC 320 (1990)
 MATERIALS LICENSE AMENDMENT; April 13, 1990; MEMORANDUM AND ORDER; CLI-90-5, 31 NRC 337 (1990)
- SEABROOK STATION, Units 1 and 2; Docket Nos. 50-443-OL, 50-444-OL
 OPERATING LICENSE; January 8, 1990; MEMORANDUM AND ORDER (Ruling on Intervenor's Motions to Admit a Late-Filed Contention and Reopen the Record Based upon the Withdrawal of the Massachusetts E.B.S. Network and WCGY); LBP-90-1, 31 NRC 19 (1990)

FACILITY INDEX

- OPERATING LICENSE; January 9, 1990; MEMORANDUM AND ORDER (Denying Intervenor's Motion to Reopen Record Regarding Proposed Amendment to Operating License Application); LBP-90-2, 31 NRC 38 (1990)
- OPERATING LICENSE; February 26, 1990; MEMORANDUM AND ORDER; ALAB-927, 31 NRC 137 (1990)
- OPERATING LICENSE; March 1, 1990; MEMORANDUM AND ORDER; CLI-90-2, 31 NRC 197 (1990); CLI-90-3, 31 NRC 219 (1990)
- OPERATING LICENSE; May 3, 1990; MEMORANDUM AND ORDER (Ruling on Certain Remanded and Referred Issues); LBP-90-12, 31 NRC 427 (1990)
- OPERATING LICENSE; May 31, 1990; DECISION; ALAB-932, 31 NRC 371 (1990)
- OPERATING LICENSE; June 7, 1990; MEMORANDUM AND ORDER; ALAB-933, 31 NRC 491 (1990)
- OPERATING LICENSE; June 8, 1990; ORDER; CLI-90-6, 31 NRC 483 (1990)
- OPERATING LICENSE; June 27, 1990; MEMORANDUM AND ORDER (Following Prehearing Conference); LBP-90-20, 31 NRC 581 (1990)
- SEABROOK STATION, Units 1 and 2; Docket No. 50-443-OL-1 50-444-OL-1
- OPERATING LICENSE; April 2, 1990; MEMORANDUM AND ORDER; ALAB-930, 31 NRC 343 (1990)
- SOUTH TEXAS PROJECT, Units 1 and 2; Docket Nos. 50-448, 50-449
- ENFORCEMENT ACTION; February 8, 1990; ORDER; CLI-90-1, 31 NRC 131 (1990)
- THREE MILE ISLAND NUCLEAR STATION, Unit 2; Docket No. 50-320-OLA
- OPERATING LICENSE AMENDMENT; January 19, 1990; DECISION; ALAB-926, 31 NRC 1 (1990)
- TURKEY POINT NUCLEAR GENERATING PLANT, Units 3 and 4; Docket Nos. 50-250, 50-251
- REQUEST FOR ACTION; March 22, 1990; DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206; DD-90-1, 31 NRC 327 (1990)
- TURKEY POINT NUCLEAR GENERATING PLANT, Units 3 and 4; Docket Nos. 50-250-OLA-4, 50-251-OLA-4
- OPERATING LICENSE AMENDMENT; January 16, 1990; MEMORANDUM AND ORDER (Ruling on Motion for Summary Disposition and Dismissal of Proceeding); LBP-90-4, 31 NRC 54 (1990)
- OPERATING LICENSE AMENDMENT; January 16, 1990; MEMORANDUM AND ORDER (Denying Petition to Intervene); LBP-90-5, 31 NRC 73 (1990)
- TURKEY POINT NUCLEAR GENERATING PLANT, Units 3 and 4; Docket Nos. 50-250-OLA-5, 50-251-OLA-5
- OPERATING LICENSE AMENDMENT; June 15, 1990; MEMORANDUM AND ORDER (Prehearing Conference Order: Parties and Contentions); LBP-90-16, 31 NRC 509 (1990)
- VERMONT YANKEE NUCLEAR POWER STATION; Docket No. 50-271-OLA
- OPERATING LICENSE AMENDMENT; April 5, 1990; MEMORANDUM AND ORDER; CLI-90-4, 31 NRC 333 (1990)
- VERMONT YANKEE NUCLEAR POWER STATION; Docket No. 50-271-OLA-4
- OPERATING LICENSE AMENDMENT; January 26, 1990; MEMORANDUM AND ORDER (Ruling on Petition for Leave to Intervene Filed by the State of Vermont); LBP-90-6, 31 NRC 85 (1990)
- WEST CHICAGO RARE EARTHS FACILITY; Docket No. 40-2061-ML
- MATERIALS LICENSE AMENDMENT; February 13, 1990; INITIAL DECISION (Ruling on All Remaining Issues); LBP-90-9, 31 NRC 150 (1990)
- MATERIALS LICENSE AMENDMENT; March 27, 1990; MEMORANDUM; ALAB-928, 31 NRC 263 (1990)