UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Victor Gilinsky, Acting Chairman
Richard T. Kennedy
Peter A. Bradford

In the Matter of **Docket Nos. 50-443**
50-444

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, et al.

(Seabrook Station, Units 1 and 2) **January 6, 1978**

Upon consideration of intervenors' requests for review of ALAB-422, 6 NRC 33 (1977), the Commission (1) agrees with the conclusion of the Licensing Board and Appeal Board majority that the applicants have reasonable assurance of obtaining the funds necessary to build the facility, but imposes a monitoring requirement on the staff with respect to the possible withdrawal of two participating companies; (2) affirms the Appeal Board decision to give binding effect to certain findings of the Environmental Protection Agency made pursuant to §316 of the Federal Water Pollution Control Act; and (3) rejects claims that the Appeal Board distorted the meaning of testimony in its factual findings. The Commission also directs (1) further staff studies of the effects of relaxing the Commission's standards for a stay so that site-related issues may be considered earlier, and of ways in which the Commission's appellate administrative procedures may assure earlier resolution of issues; and (2) initiation of a rulemaking proceeding in which the factual, legal, and policy aspects of the financial qualifications issue may be reexamined.

Appeal Board decision affirmed.

ATOMIC ENERGY ACT: SCOPE OF INFORMATION REQUIRED FOR LICENSING (FINANCIAL QUALIFICATIONS)

The Atomic Energy Act does not impose any financial qualifications requirement but merely authorizes the Commission to do so. The Commission's implementing regulations, 10 CFR Part 50, Appendix C, make clear

that the "reasonable assurance" concept embodied in that regulation is more flexible than many of the Commission's safety criteria. It does not normally contemplate refined analyses of an applicant's likely future ability to meet specific costs.

ATOMIC ENERGY ACT: SCOPE OF INFORMATION REQUIRED FOR LICENSING (FINANCIAL QUALIFICATIONS)

More detailed financial information may be required of a new corporate entity formed for the purpose of constructing the facility in question than from an established organization. 10 CFR §50.33(f) and Appendix C.

ATOMIC ENERGY ACT: SCOPE OF INFORMATION REQUIRED FOR LICENSING (FINANCIAL QUALIFICATIONS)

The "reasonable assurance" requirement of 10 CFR §50.33 contemplates actual inquiry into the applicant's financial qualifications. It is not enough that the applicant is a regulated public utility.

ATOMIC ENERGY ACT: SCOPE OF INFORMATION REQUIRED FOR LICENSING (FINANCIAL QUALIFICATIONS)

The "reasonable assurance" requirement of 10 CFR §50.33 means that the applicant must have a reasonable financing plan in the light of relevant circumstances.

ATOMIC ENERGY ACT: SCOPE OF INFORMATION REQUIRED FOR LICENSING (FINANCIAL QUALIFICATIONS)

Anticipated difficulties in raising funds are relevant to the reasonable assurance determination in connection with a financial qualifications inquiry, but a showing of some potential difficulty would not necessarily preclude that determination, all other relevant factors being taken into account.

ATOMIC ENERGY ACT: OWNERSHIP

A transfer of ownership of a utility's share of a nuclear power plant requires Commission approval. Section 184, Atomic Energy Act, 42 U.S.C. 2234.

NEPA: COST-BENEFIT BALANCE

The Commission may accept and use without independent inquiry the Environmental Protection Agency's determination of the magnitude of marine environmental impacts from the cooling system in striking an overall NEPA cost-benefit balance for the facility.

RULES OF PRACTICE: COLLATERAL ESTOPPEL

Where another agency has acted in a judicial capacity and resolved disputed issues of fact properly before it which the parties have had an adequate opportunity to litigate, the Commission will not hesitate to give *res judicata* or collateral estoppel effect to its findings "to enforce repose."

RULES OF PRACTICE: COLLATERAL ESTOPPEL

Although the judicially developed doctrines of *res judicata* and collateral estoppel are not fully applicable in administrative proceedings, the considerations of fairness to parties and conservation of resources embodied in them are relevant. *Houston Lighting and Power Company* (South Texas Projects, Units 1 and 2), CLI-77-13, 5 NRC 1303, 1321 (1977).

NEPA: FINAL ENVIRONMENTAL STATEMENT

Where the Environmental Protection Agency has decided to change the location of a water intake structure in order to mitigate environmental impacts, reliance by the Commission on such decision without circulating for comment a supplemental impact statement reflecting the change does not violate the National Environmental Policy Act.

RULES OF PRACTICE: AUTHORITY OF APPEAL BOARD

The Commission or an appeal board has authority to modify or set aside findings made by a licensing board. 10 CFR §§2.740(b), 2.785.

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Ms. Karin P. Sheldon, Washington, D.C., for the intervenor, New England Coalition on Nuclear Pollution.

Mr. Robert A. Backus, Manchester, New Hampshire, for the intervenors, Seacoast Anti-Pollution League, the Audubon Society of New Hampshire, and the Society for the Protection of New Hampshire Forests.

Ms. Ellyn R. Weiss, Washington, D.C., Counsel for the Commonwealth of Massachusetts.

Mr. Richard C. Browne (with whom **Ms. Marcia E. Mulkey** was on the briefs), for the Nuclear Regulatory Commission staff.

MEMORANDUM AND ORDER

In March 1973, Public Service Company of New Hampshire (PSCO) and several other New England utilities jointly applied to the Atomic Energy Commission for permission to build a two-unit nuclear electric generating station near the New Hampshire seacoast in the town of Seabrook. After extensive and vigorously contested hearings, the Atomic Safety and Licensing Board, by a divided vote, authorized issuance of construction permits in the summer of 1976. LBP-76-26, 3 NRC 857 (1976). Construction work commenced shortly thereafter and is taking place at the present time.

This case is now before us for the third time.[1] Our most recent consideration of the matter involved review and affirmance of the Appeal Board's action early last year staying the effectiveness of the construction permits because the uncertainty surrounding the type of cooling system that would ultimately be required by the Environmental Protection Agency made it impossible to strike a cost-benefit balance under the National Environmental Policy Act. As we noted at that time, numerous exceptions to the Licensing Board's decision were then still pending before the Appeal Board. In the interim, the EPA has acted on the cooling system question and, with one exception,[2] the Appeal Board has resolved the remaining

[1] *Public Service Company of New Hampshire, et al.* (Seabrook Station, Units 1 and 2), CLI-77-8, 5 NRC 503 (March 31, 1977); *Public Service Company of New Hampshire, et al.* (Seabrook Station, Units 1 and 2), CLI-76-17, 4 NRC 451 (1976).

[2] There are pending before the Board exceptions to the Licensing Board's July 1977 Supplemental Initial Decision concerning southern New England sites. LBP-77-43, 6 NRC 134. The Board deferred that matter pending the Licensing Board's completion of a comparative analysis of Seabrook with other sites on the assumption that cooling towers will be employed. That analysis has now been completed, and the Appeal Board will proceed with consideration of both issues.

issues before it. We will summarize these and other intervening events to place the present review in context.

In November 1976, the EPA Regional Administrator withdrew his earlier approval of once-through cooling for Seabrook. That decision was reversed by the EPA Administrator in June 1977. In his June decision, discussed more fully below, the Administrator found that the impacts on the ecology of the ocean areas near the underwater intake and discharge structures of the proposed once-through cooling system would be small. He therefore approved the applicants' request for an exemption from EPA's closed-cycle cooling requirement. That decision removes the "considerable doubt ... as to the cooling system required for the Seabrook facility"[3] that prompted us in March to affirm the Appeal Board's suspension of the Seabrook construction permits. Unless the EPA Administrator's decision is modified or reversed,[4] we know what kind of cooling system will be built at Seabrook and the environmental impacts estimated from that system.

In late July 1977, the Appeal Board rendered two decisions: ALAB-422, 6 NRC 33, resolving all but one of the pending exceptions to the Licensing Board's decision; and ALAB-423, 6 NRC 115, granting the applicants' motion to reinstate the previously suspended construction permits. Construction resumed shortly thereafter. Timely petitions to review ALAB-422 were filed by the applicants and the New England Coalition on Nuclear Pollution ("NECNP"). We denied the applicants' petition and granted in part that of NECNP. Review was granted on the four issues discussed below: the applicants' financial qualifications, the effect of the EPA determinations of aquatic environmental impacts, alleged distortions of the record by the Appeal Board, and the presumptive validity of a recent supplemental initial decision of the Licensing Board concerning alternative sites.[5] On November 4, after visiting the Seabrook site and hearing oral argument, we denied a motion by NECNP for a further stay of construction pending completion of our review.

When this case was argued before us, different aspects of the Seabrook project were being considered by an atomic safety and licensing board, an atomic safety and licensing appeal board, the Commission itself, and the United States Court of Appeals for the First Circuit. Furthermore, each of the NRC levels of review had already issued at least one major decision in the case, as had two separate reviewing levels within the Environmental

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[3] 5 NRC 503, *supra*, at 509.

[4] The validity of that decision has been challenged in Federal court, where a decision is pending. *SAPL* v. *Costle*, No. 77-1284 (1st Cir.).

[5] See note 2, *supra*. We also extended the time for review on the seismic issue until Mr. Farrar renders the further dissenting opinion promised in his partial dissent from ALAB-422.

Protection Agency. The First Circuit Court of Appeals, in an unpublished order denying a motion for a stay of construction at Seabrook, said of this process:

> We are unable to identify any other field of publicly regulated private activity where momentous decisions to commit funds are made on the strength of preliminary decisions by several agencies which are open to reevaluation and redetermination. The risk of loss to the private investors is necessarily a real and always present one. Perhaps more important to the public weal, the risk of public agencies and courts accepting less desirable and limited options or, worse, countenancing a *fait accompli* are foreboding.[6]

We ourselves expressed serious concern with the Seabrook proceeding in our last opinion:

> This case has been widely depicted as a serious failure of governmental process to resolve central issues in a timely and coordinated way—a paradigm of fragmented and uncoordinated government decisionmaking on energy matters and of a system strangling itself and the economy in red tape.[7]

Many of the difficulties with the Seabrook case have resulted from the lack of coordination between the EPA in exercising its FWPCA responsibility and the NRC in carrying out its NEPA obligation. The framework for improved coordination now exists[8] and is being implemented in licensing proceedings now underway. We can therefore expect that this aspect of the Seabrook case is unlikely to recur.

However, there are other areas where jurisdiction is not clear and where interagency coordination is yet to be achieved. And there are problems in our licensing process itself.

Steps are now being taken which should go a long way toward assuring that the problems of the Seabrook case do not recur in future licensings. For example, early site review should eventually relieve the process of many of its pressures. Meanwhile, however, our rule giving immediate effectiveness to our Licensing Board's grant of a construction permit and our stay rule often operate together to assure that Commission-level review will not take

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[6] *Audubon Society of New Hampshire* v. *United States,* No. 76-1347 (December 17, 1976).
[7] 5 NRC 503, 509.
[8] "Second Memorandum of Understanding and Policy Statement Regarding Implementation of Certain NRC and EPA Responsibilities," 40 Fed. Reg. 60115, effective January 1, 1976.

place until such time as construction is well underway.[9] This case illustrates the need to develop a procedure for assuring early Commission-level review of controverted licensing proceedings, where appropriate, particularly where siting is an issue. Consequently, we intend to develop a process which will allow the Commission to monitor more effectively the proceedings of its lower boards.

We have also decided to initiate a study addressing but not necessarily limited to:

1. the effect which would be achieved by relation of our stay standards so that site-related issues in potentially troublesome cases may be taken up before large sums of money are committed and sites are irrevocably altered, and
2. ways in which our appellate administrative procedures may assure earlier resolution of all the issues arising out of a licensing and cut relitigation and piecemeal review to a minimum.

We therefore direct our Office of Policy Evaluation and our General Counsel to prepare a draft scope of work for this review for consideration by the full Commission. We take no larger step at this time because the generic problems illustrated by the experience of Seabrook should be addressed by the full Commission. Chairman Hendrie has disqualified himself from this proceeding because of his earlier involvement with the Seabrook application as Deputy Director for Licensing and Technical Review of the Atomic Energy Commission.

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[9]At oral argument the Commission requested that the parties discuss the possibility of a remand on the issue of financial qualifications, and whether a stay would then be appropriate. The applicant answered in the negative to both questions. Commissioner Bradford then asked:

> If we followed that logic as far as one can take it, would it be possible to actually complete construction of a nuclear plant, say, the Seabrook nuclear plant, while the agency still had the construction permit under review?

To which the applicant responded:

> Yes. I think it is going to happen in Midland. Maybe you won't have it under review, but the Supreme Court or somebody will. This is the reason you have had the rule, and have had it since time immemorial, that you give out the permits.... The Board authorizes them and you get them.
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> The Commission review, the way we are going, is someday going to be going on, I think, when a plant is completed.

See Transcript pp. 153-154.

I. FINANCIAL QUALIFICATIONS

Introduction

The Licensing Board, unanimously, and the Appeal Board, by a divided vote, determined that the applicants had the requisite "reasonable assurance" of obtaining the necessary funds to cover the construction of Seabrook. The Commission's order granting review on this issue asked the parties to review the nature of the Commission's responsibilities under the Atomic Energy Act with regard to the financial qualifications of applicants and, more narrowly, to assess the state of the evidence in the present record on the financial qualifications issue. The discussion of these heretofore largely unexplored issues[10] has shown the comparative vagueness of current NRC requirements and the speculative character of financial qualifications inquiries concerning complex, costly and long-term construction projects. Our independent assessment of the record in this case leads us to agree with the conclusion of the Licensing Board and of the Appeal Board majority—that there is a "reasonable assurance" that these applicants are financially qualified.[11] We describe hereafter the reasoning that leads us to that conclusion.

A. The Atomic Energy Act and Implementing Regulations

The Atomic Energy Act of 1954 provides in Section 182.a that:

> Each application for a license hereunder ... shall specifically state such information as the Commission, by rule or regulation, may determine to be necessary to decide such of the technical and financial qualifications of the applicant ... as the Commission may deem appropriate for the license. 42 U.S.C. § 2232(a).

[10]Prior to 1973, when many utility applicants first began to experience substantial difficulties in raising large sums for capital investments, an applicant's financial qualification was rarely a contested issue. To date, the question has been litigated in relatively few cases. See *Power Reactor Development Corporation,* 1 AEC 128, 150 (1959). In *Northeast Nuclear Energy Company* (Millstone 3), the Licensing Board found that a 3.694% participant possessed only "marginal" financial qualifications; its earnings had plummeted, and Moody's Investors Service had withdrawn its ratings of all of the utility's outstanding first mortgage bonds. LBP-74-58, 8 AEC 187 (1974). Despite the weakness of this participant, the Licensing Board found that the applicant possessed the necessary financial qualifications. The Appeal Board endorsed the Licensing Board's findings, and observed that if the participant had owned a substantially larger share of the facility, such as the 40% interest of another participant, the applicant's financial qualifications would have been "doubtful." ALAB-234, 8 AEC 643 (1974).

[11]We note, however, that two of the present participants may withdraw from the project, and we are therefore imposing a monitoring requirement on the staff, as we describe below.

The legislative history is silent as to the purpose of the financial qualifications showing. However, the statute itself does not impose any financial qualifications requirement; it merely authorizes the Commission to impose such financial requirements as it may deem appropriate.

The Atomic Energy Commission adopted the relevant financial qualifications implementing regulation in 1968:[12]

> Each application shall state ... [i]nformation sufficient to demonstrate to the Commission the financial qualifications of the applicants to carry out, in accordance with the regulations in this chapter, the activities for which the permit or license is sought. If the application is for a construction permit, such information shall show that the applicant possesses the funds necessary to cover estimated construction costs and related fuel cycle costs or that the applicant has *reasonable assurance* of obtaining the necessary funds, or a combination of the two. 10 CFR §50.33(f). (Emphasis added.)

The regulations are amplified by Appendix C to 10 CFR Part 50, which sets forth guidance on the financial data required of license applicants. The appendix makes clear that the "reasonable assurance" concept embodied in the regulation is more flexible than many of the Commission's safety criteria.[13] It states that:

> The kind and depth of information described in this guide is not intended to be a rigid and absolute requirement....
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> * * * * *
>
> In determining an applicant's financial qualifications, the Commission will require the minimum amount of information necessary for that purpose. No special forms are prescribed for submitting the information. In many cases, the financial information usually contained in current annual financial reports, including summary data of prior years, will be sufficient for the Commission's needs.

Appendix C goes on to specify the information to be furnished by applicants. For established organizations, like the utilities involved here, the applicant is required to submit estimates of construction costs, a "brief statement of the applicant's general financial plan for financing the cost of

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[12]Prior to 1968, the Commission's regulations provided only that applications should state: "(f) The financial qualifications of the applicant to engage in the proposed activities in accordance with the regulations in this chapter." 10 CFR §50.33. The regulations offered no guidance as to how financial qualifications were to be demonstrated.

[13]See, for example, the highly quantified criteria for emergency core cooling systems in Part 50, Appendix K.

the facility, identifying the sources upon which the applicant relies for the necessary construction funds," its latest published annual financial report, and any pertinent interim financial reports. More detailed information may be required of a new entity formed for the purpose of constructing the facility in question.[14]

The history of the adoption of Appendix C also indicates that the "reasonable assurance" requirement is not rigid and that it does not normally contemplate refined analyses of an applicant's likely future ability to meet specific costs. The adoption of Appendix C in its present form followed the proposal and withdrawal of an earlier version. As the statement of considerations reflects, the appendix finally adopted eliminated much of the detail of the original proposed version. A comparison of the two is instructive.

Appendix C as first proposed in June 1967 would have required applicants for reactor construction permits, whether established utilities or entities formed specifically for the purpose of building a plant, to submit highly detailed information to the Commission. See 32 Fed. Reg. 8423. Cost projections of considerable specificity and detail were to be provided, to permit an item-by-item evaluation of the reasonableness of the estimates. Analyses of sources of funds of each applicant were to be similarly detailed, also on an item-by-item basis. The guide provided that "the capability or reasonable assurance of each source to produce its assigned portion of the estimated fund requirements should be demonstrated."

In July 1967, the first proposed version of Appendix C was withdrawn. 32 Fed. Reg. 10816. In response to a query from the Executive Director of the Joint Committee on Atomic Energy, the Director of Regulation explained the Commission's action. In a letter dated August 25, 1967, which was entered in the public docket file, the Director stated that:

> After publication, and as a result of questions about the purpose of the guide, we carefully re-reviewed it and concluded that it would call for substantially more information in scope and detail than is likely to be necessary, particularly in the case of operating utilities with a history of financial stability.

[14]The introduction to Appendix C states that:

> It is important to observe also that both §50.33(f) and this appendix distinguished between applicants which are established organizations and those which are newly formed entities organized primarily for the purpose of engaging in the activity for which the permit or license is sought. Those in the former category will normally have a history of operating experience and be able to submit financial statements reflecting the financial results of past operations. With respect, however, to the applicant which is a newly formed company ... somewhat more detailed data and supporting documentation will generally be necessary.

> In rewriting the guide we are attempting to bring into sharper focus and detail the difference in the kind and detail of information to be required of an applicant with an established operating history as distinguished from the applicant which is a newly formed entity....

This history suggests that for established utilities with substantial operating records, close scrutiny of financial qualifications was not viewed as necessary to assure that financial considerations did not compromise safety.

The statement of considerations accompanying the final rule and Appendix C states:

> Although the Commission's safety determinations required for the issuance of facility licenses are based upon extensive and detailed technical review, an applicant's financial qualifications can also contribute to his ability to meet his responsibilities on safety matters. 33 Fed. Reg. 9704.

As will be seen, much of the controversy in this case concerns just how this declared relationship between financial qualifications and safety applies in practice to a regulated public utility.

B. The Review of Financial Qualifications in This Case

Before a case proceeds to hearing, the NRC staff prepares its analysis of the applicant's financial qualifications, based on extensive data submitted by the applicant. Here, the NRC staff, assisted by a consultant, considered the information and the proposed financial plan submitted by each of the applicants and concluded they had demonstrated the requisite financial qualifications.[15]

The transcript of the Seabrook hearing documents an exhaustive examination of the financial qualifications issue: six days of testimony and cross-examination were devoted to the issue; the transcript of this portion of the hearing occupies more than 1,300 pages, exclusive of exhibits; ten expert witnesses appeared. Appearing in support of the applicants' qualifications were the senior financial analyst of the NRC staff and the consultant who together prepared the staff evaluation; the financial vice-president of PSCO; and a vice-president of PSCO's financial consulting firm. The intervenor NECNP presented in opposition to the application a professor of business administration and a professor of economics. Intervenor Donald B. Ross called an insurance company investment officer and officials of three other utility participants. The witnesses were cross-examined extensively.

[15]This analysis appears in the record in Supplement No. 3 to the Safety Evaluation Report.

The witnesses presented detailed testimony on such areas as: construction costs; sources of funds; the health of the utility industry generally and of the applicants in particular; the state of the bond market and the likely marketability of PSCO bonds under different assumptions; the reasonableness of PSCO's assumptions with regard to the projections of other applicants; the history of rate actions by the New Hampshire Public Utilities Commission (PUC); the upturn in the market price of PSCO stock following the favorable PUC action in December 1974 granting PSCO a 14% return on equity; and financing practices in the utility industry, including allowance for funds used during construction (AFUDC) and construction work in progress (CWIP). The financial qualifications inquiry here appears to have been the most searching examination of this question in the history of commercial power reactor licensing. The testimony of the witnesses presented by the applicants and the staff supported the conclusion of a "reasonable assurance" regarding financial qualifications. Intervenors' witnesses disputed that conclusion, contending not that the necessary funds could not be raised, but that the applicants would experience difficulty in raising them.

D. The Decision of the Licensing Board

The Licensing Board rendered its decision authorizing issuance of construction permits for the Seabrook facility in June 1976. The three members of the Board were in agreement on detailed findings of fact leading to the conclusion that the applicants were financially qualified to construct the facility. 3 NRC 857.

The Licensing Board's Supporting Opinion included a discussion of the major facts and reasoning underlying its conclusion. It noted that the controversy centered on the ability of PSCO to raise some $800,000,000, a sum twice the total assets of the company as of December 31, 1974. The Board observed that while PSCO had raised a comparable proportion of its assets in a comparable period of time—167% of its assets in the eight-year period 1967 through 1974—the company had then enjoyed a Moody's bond rating of A. In February 1974, Moody's had derated PSCO's bonds to Baa, and PSCO's common stock, like that of many other utilities, had declined to substantially below book value between 1973 and 1975. During that time, the company had been involved in a protracted rate proceeding.

The Licensing Board also noted, however, that during the previous two years an unusual combination of tight money, recession, inflation, and the energy crisis had increased fuel costs and other expenses rapidly and had impaired utilities' fund-raising for all purposes, including plant construction.

It also observed that PSCO's earnings had begun to improve since the approval of its requested rate increase. The Board concluded that "the preponderance of the expert testimony in this case is that the necessary funds will be forthcoming from the market although the cost of money may be higher than originally projected to PSCO."[16] 3 NRC at 917.

The Licensing Board hearings on the financial qualifications issue concluded in June 1975. In December of that year, Northeast Utilities, the parent company of Connecticut Light and Power Company, announced its intention to sell its entire 11.98% share of the Seabrook project. At the same time, the United Illuminating Company indicated its desire to sell half of its 20% interest in Seabrook. On the basis of these developments SAPL-Audubon moved to reopen the evidentiary proceedings on financial qualifications, need for power, and the overall cost-benefit balance for the facility.

In February 1976, the Licensing Board granted the motion with regard to need for power, noting that Northeast Utilities had publicly stated that one reason for its decision to sell its share of Seabrook was "changes ... in the long-range capacity and energy needs of NU's service area and of New England as a whole." Memorandum and Order at 8. The Board reserved judgment on whether to reopen the cost-benefit balance issue pending the outcome of the need for power inquiry. As to financial qualifications, the Licensing Board declined to reopen stating that it found no evidence that the applicants could not meet their financial obligations for the Seabrook project. It further reasoned that the Commission's regulations, under which any change in ownership requires an amendment to the construction permit and is subject to full adjudication, provided adequate protection of the public interest.

E. The Appeal Board's Divided Decision

1. The Majority View

The Board majority, Chairman Rosenthal and Member Buck, affirmed the Licensing Board's conclusion that the applicants were financially qualified. The majority observed that central elements in the intervenors' contentions were the undisputed facts that in February 1974 the Moody's

[16]Whereas PSCO had originally projected that it would issue bonds at 8%, its revised source of funds sheet raised this figure to 12%.

rating of PSCO bonds fell from A to Baa,[17] and that between 1974 and 1976, the price of the company's stock declined to substantially below book value. The Board noted, however, that the Licensing Board had recognized these facts, as well as the fund-raising efforts which would be required of PSCO. Balanced against these considerations were favorable factors, including the company's fund-raising ability as demonstrated between 1967 and 1974; the higher rate of return allowed the company by the New Hampshire PUC's decision; the "possibility" that PSCO would regain its A rating from Moody's; and the extensive sales of Baa utility bonds in the first months of 1975. The majority quoted with approval the Licensing Board's discussion of the financial condition of utilities and the improving economic and regulatory climate. 6 NRC at 76.

The majority discussed at some length the intervenors' attack on the Licensing Board's decision, insofar as it had given weight to the prospect of future rate increases. The majority declared that:

> These claims lose sight of one undeniable fact: the applicants here are public utilities which are under an obligation to render a public service and which are regulated by state regulatory bodies, Those bodies have considered and approved the Seabrook facility.... Given these considerations, it is scarcely likely that the PUC would stand in the way of the establishment of those rates necessary to enable Public Service to fulfill the obligations imposed upon it by its nuclear facility licenses. 6 NRC at 77.

The Appeal Board majority also pointed to the recent history of the New Hampshire PUC in granting rate relief to PSCO. In the circumstances, the Board concluded that:

> ... it was not improper for the applicants to have supported their showing of financial qualifications *in part* by relying on future, not-yet-obtained rate increases. And it was not error for the Licensing Board to

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[17]The Board cited Moody's explanation of its rating system:

Bonds which are rated A possess many favorable investment attributes and are to be considered as upper medium grade obligations. Factors giving security to principal and interest are considered adequate but elements may be present which suggest a susceptibility to impairment sometime in the future.

Bonds which are rated Baa are considered as medium grade obligations, *i.e.*, they are neither highly protected nor poorly secured. Interest payments and principal security appear adequate for the present but certain protective elements may be lacking or may be characteristically unreliable over any great length of time. Such bonds lack outstanding investment characteristics and in fact have speculative characteristics as well. ALAB-422, 6 NRC 33, at 76, n. 49.

have *accorded weight* to the prospect of such future rate increases. 6 NRC at 78 (emphasis added).

The Appeal Board majority next considered the intervenors' claim that the increased cost of the project and the two utilities' plans to sell portions of the facility indicated that applicants would face greater difficulty than earlier anticipated in financing Seabrook. The majority observed:

> This all well may be true. But it does not perforce undermine the conclusion below that the applicants are financially qualified.... Certainty need not be shown and all contingencies need not be foreseen. 6 NRC at 79.

The majority noted that none of the intervenors' witnesses had contended that, even with rising capital costs, the applicants would be *unable* to obtain the required funds. Reviewing the record before the Licensing Board, the majority noted that while one witness for NECNP had foreseen problems for the utility in raising funds, he had declined to predict that funds could not be raised. The Board found that his testimony, like that of the intervenors' other two witnesses on the financial qualifications issue, was that fund-raising would be more "difficult and expensive" than had been projected by the applicants. The Board continued:

> That being so, it is unnecessary for us to consider here the particular strengths and weaknesses of each witness' testimony. For the financial qualifications inquiry contemplated by the Commission's regulations centers upon whether the funds can be obtained and not on the price of or difficulty in obtaining them. 6 NRC at 79.

The Appeal Board majority also considered and rejected intervenor contentions, earlier rejected by the Licensing Board, that developments following the hearing warranted a reopening of the financial qualifications inquiry.[18]

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[18] These developments were the announcement of two utilities' plans to sell portions of the Seabrook facility and alleged inconsistencies between the testimony of a PSCO witness before the Licensing Board and his subsequent testimony to the FPC and to a committee of the New Hampshire legislature. As to the sale of ownership interests, the Board found no suggestion that either of the two utilities in question intended to breach its obligation under the Joint Ownership Agreement to continue financial participation in Seabrook "unless and until" the Commission issued a license amendment approving the substitution of other participants. Nor did the record suggest that either utility was not financially qualified to meet its obligations, should it be unable to find a financially qualified purchaser. The majority analyzed the alleged inconsistent statements in some detail and, while rebuking the practice, determined that they did not "undercut the conclusions we have reached on the basis of the record adduced below."

2. Member Farrar's Dissenting Views

Dissenting from the ruling of the majority on financial qualifications, Member Farrar viewed that holding as adopting the "singular principle ... that a large utility company which has received the approval of its State regulatory agency should, on that ground alone, be conclusively presumed by this Commission to be financially qualified." 6 NRC 106. He found a "superficial appeal" in the principle assertedly adopted by the majority, stating that in the case of a nonnuclear facility, he would be willing to endorse it. But, as he viewed the matter, "this is a nuclear power plant, and that makes a difference." 6 NRC at 108.

Stating that the majority's position rendered the financial qualifications inquiry "virtually meaningless," Mr. Farrar declared that an applicant's duty to prove itself capable of constructing the plant in a manner consistent with the Commission's safety goals

> means that there is a need to avoid a situation in which financial pressures on an applicant become so pervasive as to influence the manner in which the plant is constructed. If the struggle to obtain funds becomes too difficult, even the most safety-conscious utility company might succumb and, in its efforts to reduce costs, end up cutting corners in constructing the plant.

His assessment of the evidence in this case showed that "at best, the lead applicant would have a long, difficult and costly struggle" obtaining the outside capital necessary to finance its share of the plant. As he saw it, "an applicant must show that it will be able to obtain funds in ready enough fashion to avoid the likelihood that temporary shortages may compromise safety [footnote omitted]. The applicants have not shown this here. It invites disaster to overlook it." 6 NRC at 110.

Mr. Farrar went on to assert that the Licensing Board erred in refusing to reopen the record to examine the announced desire of the two Connecticut utilities to sell interests aggregating 22% of Seabrook. This development, in his view, "cried out for further investigation," since it was "not unheard of" even for parties able to honor their contractual agreements to decide that it was in their interest not to do so. 6 NRC at 110.

F. Contentions of the Parties

In their briefs and at oral argument, the NRC staff argued for affirmance of ALAB-422, contending that the decision of the Appeal Board majority rested not only on assumptions as to the likelihood of favorable rate action by the New Hampshire PUC but also on the extensive record before

the Licensing Board, including the staff's analysis of the applicants' financial qualifications. In effect, staff takes the position that "reasonable assurance" of obtaining the funds necessary for construction means that the applicant has demonstrated that it has a reasonable financing plan.

The applicant also urged affirmance on similar bases, and on the theory that public utility commissions must be presumed to discharge their duties responsibly (*i.e.*, granting rate increases when justified), and that for regulated public utilities, the financial qualifications inquiry should therefore focus solely on regulatory climate.[19] The fact that a utility is publicly regulated would therefore be sufficient proof of its financial qualifications, unless the state public utilities commission were shown to be derelict in its duty to grant needed rate increases.[20] Arguing against a linkage of financial qualifications and safe construction, the applicants contended that attempts by a utility to cut corners on safety-related construction would be both contrary to its long-run financial interests and certain of detection by the Commission's inspectors.[21]

Intervenors NECNP, SAPL-Audubon, and Massachusetts urge us to reverse the Appeal Board majority. All three agree with Mr. Farrar that applicants have failed to demonstrate their financial qualifications to build the plant, focusing much of their attack on the weight accorded by the majority to the prospect of favorable rate action by the New Hampshire PUC. Pointing to difficulties PSCO has experienced in the past in obtaining rate relief from the PUC, they contend that no weight whatsoever may be accorded to the prospect of future rate increases. The intervenors argue, in essence, that our present regulation assumes a direct and significant relationship between the safety of an applicant's construction practices and its financial condition, and that therefore only a financially strong utility—its stability to be demonstrated with considerable certitude—should be found qualified to build a nuclear power plant.[22]

G. Financial Qualifications on the Record of this Case

The divergent contentions must be measured against our existing regulation. Given the record in this case, we need not define the precise relationship between safety and financial qualifications for we are satisfied that the applicants' financial condition presently provides "reasonable assurance of obtaining the necessary funds." Further exploration of these generic

[19]Applicant's brief at 12, n.9, and 25.
[20]Transcript of oral argument at 70.
[21]Applicant's brief at 23.
[22]Transcript of oral argument at 18.

issues—presumably applicable to all commercial nuclear plants—should be undertaken in rulemaking, with its broader opportunities for interested public and industry participation.

The "reasonable assurance" requirement of 10 CFR §50.33 does, however, contemplate actual inquiry into the applicants' financial qualifications. It is not enough that the applicant is a regulated public utility. On the other hand, given the history of the present rule and the relatively modest implementing requirements in Appendix C,[23] a "reasonable assurance" does not mean a demonstration of near certainty that an applicant will never be pressed for funds in the course of constructon. It does mean that the applicant must have a reasonable financing plan in the light of relevant circumstances.

As we noted earlier, the statement of considerations accompanying adoption of the present regulation stated that "an applicant's financial qualifications can ... contribute to his ability to meet his responsibilities on safety matters." While unexceptionable in the abstract, this proposition is less compelling in the case of a regulated public utility engaged in a construction project which is itself subject to high safety standards and ongoing inspection. No facts in the rulemaking record underlying the present regulation either support or negate the asserted link between financial qualifications and safety. Nor is there evidence in the present record that the applicants would be likely to engage in substandard construction should they ever run short of funds.

In the absence of any demonstrated direct connection between financial qualifications and safety in the utility industry—either generally or in this case in particular—we are left with the essentially speculative claims of the parties. It is not enough to say, as the applicant suggests, that failure to adhere to rigid safety standards is unlikely because this would be contrary to the applicant's self-interest. To be sure, applicants have a near-term interest in avoiding possible civil penalties and adverse publicity arising out of safety violations, and a long-term interest in building a safe, reliable plant. Nevertheless, nuclear safety regulation is premised on a system of multiple and redundant safety measures. The "reasonable assurance" requirement was adopted to assure that financial conditions did not compromise the applicant's clear self-interest in safety.

Counsel for Massachusetts expressed concern not so much with deliberate efforts to depart from safety standards, but rather with financial difficulties that might lead utility personnel, as a matter of human nature, to view potential safety problems with less seriousness than might otherwise be the case.[24] However, recent experience does not suggest that a utility

[23]See text accompanying n. 10, *supra*.

[24]Transcript of oral argument at 150.

short of funds will cut corners on safety. In the past few years, many utilities in the process of constructing nuclear facilities have experienced unforeseen financial difficulties. Common responses have been to slow down construction or to suspend construction altogether.[25] Such a response is not surprising in view of the fact that the sums involved in the process of building a nuclear power plant, even over a relatively short segment of the whole process, can run to the tens of millions, amounts far exceeding the comparatively small sums a utility might expect to save by cutting corners in construction.

These speculative and conflicting considerations do not support our reading the stringent test of financial qualifications urged by the intervenors and Mr. Farrar into the present regulation. And apart from the seemingly tenuous link between safety and financial qualifications, particularly for a large regulated utility, other considerations lead us to believe that a utility cannot provide more than a reasonable assurance that funds will be available through the course of a multiyear construction project. The number of variables—such as interest rates, the state of the stock and bond markets, the regulatory climate and the cost of fuel—that operate over the period required to construct a nuclear plant make financial forecasting over a ten-year period uncertain.

The resulting limited usefulness of the financial qualifications inquiry underscores the importance of ongoing inspections of reactor construction projects. Our Office of Inspection and Enforcement monitors the quality assurance programs of licensees and samples of the actual work performed by contractors and subcontractors. The Commission's inspection force has increased substantially over the past several years. On the basis of inspector field reports, the Commission can bring and has brought construction to an immediate halt when deficient practices indicated a safety problem.[26] The Commission is presently prepared to implement a plan under which resident NRC inspectors will be assigned to plants in the later stages of construction and to operating facilities. The quality and extensiveness of the Inspection and Enforcement effort is such that any significant pattern of unsafe cost-cutting should be detectable and would be dealt with appropriately.

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[25]See Nuclear Power Plant Licensing: Opportunities for Improvement, NUREG-0292 (June 1977) at 3-1; C. Behrens, The Role of Licensing in Nuclear Power Plant Construction Times, Congressional Research Service (October 20, 1977).

[26]In *Consumers Power Company,* in which a licensee objected that the Director of Regulation had acted illegally in halting construction upon finding a pattern of deficient cadwelding, the Commission declared that where the public health, interest, or safety is involved, "a show cause proceeding—contemplating possible suspension, revocation or other appropriate action following a hearing—may be instituted without notice, and the order may be made effective immediately pending the hearing." CLI-74-3, 7 AEC 7, 10 (1974).

We need not undertake here any further examination of the nature and extent of the relationship between financial qualifications and safety, nor need we attempt a more precise determination of the standards by which financial qualifications should be judged. We are, however, directing the staff to initiate a rulemaking proceeding in which the factual, legal, and policy aspects of the financial qualifications issue may be reexamined.

Our determination that the generic issues raised in this proceeding require further exploration does not prevent our resolution of the case before us. Our review of the extensive record summarized earlier persuades us that the Licensing Board and the Appeal Board majority were correct in finding that the applicants possessed the requisite "reasonable assurance" of the funds necessary to construct the Seabrook facility. Based on our review of the original and revised source of funds sheets and the prospect of future rate increases, we believe that the Licensing Board was correct in finding that the applicants' financial plans should generate the necessary construction funds. Although the bond rating of the lead applicant has fallen to Baa, there is no evidence that a bond offering at that rating would be unsaleable.[27] The witnesses who testified were in general agreement that the lead applicant would be able to raise the funds necessary to build the plant, although the cost of financing would be higher than it had originally projected. And the cost record shows, among other things, that the New Hampshire Public Utilities Commission has granted the lead applicant a 14% rate of return on equity and has indicated its present intention to provide PSCO with the rate relief it needs in order to build the plant. We conclude that on the record before us, taken as a whole, the applicants have reasonable assurance of obtaining the funds necessary to build the plant, within the meaning of present requirements.

Our holding today rests on the factual record of this case, which does justify consideration of the prospect of future rate increases. Although speculative, this factor is no more speculative than numerous other factors, such as future interest rates, which should be taken into account. Though this factor received inordinate emphasis in the majority opinion, the Appeal Board discussed other elements in the record as well, notably the applicant's bond ratings and its fund-raising history.

The division between the majority and dissent focused in part on the concept of "difficulty." The majority asserted concern should center on "whether the funds can be obtained and not on the price of or difficulty in obtaining them." 6 NRC at 79. The dissent countered that difficulty in raising funds was precisely the circumstance in which corner-cutting was likely to occur. 6 NRC at 108.

[27] It was pointed out at oral argument that twelve other utilities licensed by the Commission are rated Baa by Moody's. Transcript of Oral Argument at 76.

Both majority and dissent presumably would agree that at a certain point, an applicant could face so much difficulty in obtaining funds that the likelihood of its being able to finance the plant would fall below the level of "reasonable assurance." They appear to differ on what is "reasonable"; the majority would establish a low threshold to satisfy the "reasonable assurance" standard, while the dissent urges an exacting standard. As we have indicated, we believe that the correct approach falls between the majority and dissent. Anticipated difficulties in raising funds are relevant to the reasonable assurance determination, but a showing of some potential difficulty would not necessarily preclude that determination, all other relevant factors being taken into account.

Shortly before oral argument, counsel for SAPL-Audubon wrote to the Commissioners, enclosing a document consisting of excerpts of testimony before the New Hampshire PUC by a PSCO executive who had earlier testified before the Licensing Board. SAPL-Audubon asserted that this material had a bearing on the applicants' financial qualifications. At oral argument, the Commission indicated that it would treat the letter as a motion to file the material and that counsel for the applicants and the other parties would have an opportunity to comment on that motion and to offer additional material as they saw fit. The applicants' response urged that no additional material should be accepted, but that if the SAPL-Audubon submission were accepted, the applicants' submission should be received as well. As attachments, the applicants included the October 25, 1977, decision of the Connecticut Public Utilities Control Authority on Connecticut Light and Power Company's request for a rate increase, an affidavit of an official of CL&P's parent company, Northeast Utilities, and the testimony of a PUC staff witness before the New Hampshire PUC. We are granting the motions for leave to file, and we have considered the material proffered by both SAPL-Audubon and the applicants in our resolution of the financial qualifications issue.

The excerpted testimony submitted by SAPL-Audubon demonstrates that the company is eager to show the New Hampshire PUC that a rate increase is required, and believes that an upgrading of its bond rating would substantially facilitate its effort to finance the plant. The applicants' reply indicates that the PUC staff advocates granting in full PSCO's request for permission to include construction work in progress in the rate base.[28] In

[28]Moreover, the PUC staff believes that PSCO meets the Federal Power Commission's "severe financial stress" tests for allowing inclusion of construction work in progress in the rate base. The submission also makes clear that a finding of "severe financial stress," as the term is defined by the Federal Power Commission, need not preclude a finding that a utility is "financially qualified," as defined by NRC. In the November 8, 1976, decision that concluded

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our view, these submissions are largely cumulative of material already in the record, both as to the means by which financing might be facilitated and as to regulatory climate. Accordingly, our finding that the applicants possess the requisite financial qualifications is not altered by the additional material.

These submissions raise questions, however, with respect to the two Connecticut utilities, Connecticut Light and Power and United Illuminating, which wish to dispose of interests in the plant. The October 25 decision of the Connecticut Public Utilities Control Authority, which granted Connecticut Light and Power a lower rate increase than it had requested, recommended that the company puruse all possibilities available to it for selling its 12% interest in Seabrook.[29] The Northeast Utilities affidavit states that Connecticut Light and Power will conform to the Seabrook Joint Ownership Agreement as long as it remains a participant; that it has entered into or is entering into agreements with various New England utilities for the sale of all its interest in Seabrook; and that when NU offered its interest in Seabrook to all New England utilities presently, or eligible to become, members of the New England Power Pool, the offer was oversubscribed. The affidavit did not specify the companies with which those contracts had been or would be concluded.[30]

Any transfer of ownership would require Commission approval.[31] We will await the filing of an application for a license amendment to consider the issue whether future applicants are financially qualified. In the event that the Connecticut PUC issues a further order related to the two utilities,

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its rulemaking proceeding on construction work in progress, the FPC explained "severe financial stress" as follows: "The financial circumstances that we contemplate are those in which it would be clearly detrimental to utility wholesale customers if some amount of CWIP were not permitted in rates base.... Such a circumstance might arise, for example, where the exigencies of the utility's construction program are such as to reduce its interest coverage to such an extent that additional capital cannot be raised at reasonable rates and that to attract capital would require a rate of return on equity substantially in excess of the cost of equity capital to otherwise similar electric utilities. Under such circumstances, it would be to the benefit of the consumer if the additional earnings necessary to attract capital were permitted by way of a return on CWIP rather than by way of an inflated return on the traditional rate base since the former treatment would eventually be reflected in a lower rate base ... while the latter would not." Docket No. RM 75-13.

[29]Docket No. 770319 at 32.

[30]Under Section 23.1 of the Joint Ownership Agreement, before any interest in the facility may be offered for sale, PSCO and United Illuminating "must have first been afforded in writing an opportunity to purchase the interest involved separately or in the aggregate on equal or better terms than those of the offer of sale and have declined such opportunity." The affidavit does not indicate the terms of the offer to the New England utilities generally or of the offer presumably first made to PSCO and UI.

[31]See Section 184 of the Atomic Energy Act, 42 U.S.C. 2234.

or that either utility independently withdraws from the project without disposing of its shares, the lead applicant shall advise the Commission's staff of its plans for dealing with the changed circumstances.[32]

As described above, there is pending before the New Hampshire PUC a PSCO request for a rate increase and for the inclusion of construction work in progress in the rate base. The company has made it clear that it views the PUC's action on its request as critical to its plans for constructing Seabrook. Accordingly, we also direct the lead applicant to report promptly to the staff all orders entered by the PUC with regard to this rate proceeding, indicating any changes in financial planning to which the PUC's action may give rise. The staff shall duly report to the Commission on its findings and proposed course of action with regard to any such change in circumstances.

II. EFFECT OF EPA DETERMINATIONS OF AQUATIC IMPACTS

The second issue on which we granted review was the Appeal Board's decision to give binding effect to certain findings of EPA made pursuant to Section 316 of the Federal Water Pollution Control Act ("FWPCA"). The EPA Administrator found that the once-through cooling system he approved for Seabrook was, as required by the FWPCA, adequate to "assure the protection and propagation of a blanced, indigenous population of fish, shellfish, and wildlife in and on" the ocean waters near Seabrook. June 17, 1977, Decision at 35. The Appeal Board read this conclusion as a finding that "the marine environment impacts of once-through cooling are small." 6 NRC at 71. The Board accepted those findings "without independent inquiry of our own into their record foundation," *id.*, and without itself resolving the conflict on precisely this issue between the Licensing Board's majority and dissent, *id.* The Appeal Board then concluded that this "small" effect of the once-through cooling system was not enough either to tilt the ultimate cost-benefit balance against the facility or to require the choice of an alternative site. *Id.*

The narrow question presented is whether the Commission may accept and use without independent inquiry EPA's determination of the magnitude of the marine environmental impacts from the cooling system in

[32]Appendix C specifically contemplates that:

> The Commission may, from time to time, request the applicant or licensee ... to submit additional or more detailed information respecting its financial arrangements and status of funds if such information is deemed necessary to determine an applicant's financial qualifications for a license or a licensee's financial qualifications to continue the conduct of the activities authorized by the licensee ....

striking an overall cost-benefit balance for the facility. Our conclusion is that we may and in this case should. The alternative suggested by the intervenors would be for the Commission to allow relitigation of an issue already ventilated before the EPA, possibly leading to different determinations concerning aquatic impacts, even though we are bound to accept the cooling system prescribed by EPA with which those impacts are associated. We cannot believe that Congress contemplated such a procedure. In its brief to us, the NRC staff seemed to argue that if the Appeal Board relied solely on EPA's determination of the magnitude of the aquatic impacts, it should be affirmed. Staff brief at 24. During oral argument staff espoused a somewhat different position, stating that the Board's decision could be affirmed either because the Board had independently evaluated the magnitude of the aquatic impacts,[33] or because the independent evaluation that was done by staff and by the Licensing Board was adequate to satisfy our NEPA obligation despite the Appeal Board's failure to make that analysis itself.[34] The explicit language of ALAB-422 cited above refutes the first contention staff raised in argument; the second contention, that staff and Licensing Board environmental analysis alone without final adjudicatory consideration and review satisfies our NEPA obligations, is one we need not decide in view of our decision herein to rely on the EPA findings.

Since an understanding of the statutory framework governing the relationship between the Commission and EPA in the area of nuclear power plant cooling systems is central to consideration of this issue, it is helpful to restate part of the Appeal Board's discussion of this subject in ALAB-366.[35] By virtue of NEPA and the FWPCA, both this Commission and EPA have significant roles to play in the overall effort to regulate the impact of nuclear generating facilities on the aquatic environment. The 1972 amendments to the FWPCA gave EPA a more expansive role in protecting water quality than any Federal agency previously had. At the same time, in furtherance of the expressed policy of the FWPCA to reduce "needless duplication and unnecessary delays at all levels of government,"[36] they significantly reduced the scope of obligations this Commission had been discharging under NEPA.

Under Section 402 of the FWPCA, EPA may issue a permit allowing discharge of a pollutant if the discharge complies with certain standards. Heat is included as a pollutant under the FWPCA. The most important EPA heat standards are set pursuant to Section 301, under which, by 1983,

[33]Transcript at 105-06, 108.
[34]Transcript at 117, 118-19.
[35]See 5 NRC 39 at 48-58.
[36]Section 101(f) of the FWPCA, 33 U.S.C. 1251(f).

EPA must set effluent limitations based on the "best available technology economically achievable."[37] With respect to thermal pollution, EPA also has authority to insure that intake locations reflect the best technology available for minimizing adverse environmental impact.[38]

Congress recognized that EPA's general standards governing heat discharges might be more restrictive than necessary in particular cases. Accordingly, Section 316(a) of the Act permits the Administrator to grant an exemption from Section 301 standards if an applicant has shown to his satisfaction that the 301 standards are more stringent than necessary to assure the protection and propagation of a balanced indigenous population of shellfish, and wildlife at the site. EPA's current policy is that unless a 316(a) exemption is obtained, there may be essentially no discharge of heat from cooling water condensers, thus requiring closed-cycle cooling and the use of cooling towers for plants such as Seabrook.

The major change the FWPCA made in this Commission's NEPA responsibilities is contained in Section 511(c). As the Appeal Board said in ALAB-366, 5 NRC 39, *supra,* at 51-52 (footnotes omitted):

> In order to establish a different role for this Commission with respect to water pollution matters than that mandated by *Calvert Cliffs,* Congress provided that nothing in NEPA was to be deemed to authorize this Commission either (1) "to review an effluent limitation or other requirement established pursuant to" the FWPCA or "the adequacy of any certification under Section 401 of" the FWPCA; or (2) "to impose ... any effluent limitation other than any such limitation established pursuant to the FWPCA...."
>
> The meaning of section 511(c)(2) can perhaps best be understood by examining how, in light of it and in ideal circumstances, the responsibilities of the two agencies are to mesh in passing upon an applicant's proposal. As Senator Baker explained in introducing the floor amendment which was the forerunner of section 511(c)(2), duplication was to be avoided by leaving to EPA and the states the decision as to the water pollution control criteria to which a facility's cooling system would be held. This Commission would not then be free to ignore considerations of aquatic impact; it would have to consider them, but only as part of its overall "balancing judgment" on whether "it is in the public interest" to grant the requested permit. In other words, this Commission still must consider any adverse environmental impact that would accrue from operation of the facility in compliance with EPA-imposed stand-

[37] Section 301(b)(2)(A), 33 U.S.C. 1311(b)(2)(A).
[38] Section 316(b), 33 U.S.C. 1326(b).

ards; but it cannot go behind either those standards or the determination by EPA or the state that the facility would comply with them.[39]

The relationship of EPA and this Commission in the present setting may be summarized thus: EPA determines what cooling system a nuclear power facility may use and NRC factors the impacts resulting from use of that system into the NEPA cost-benefit analysis.

Viewed against the statutory framework, the board's reliance on the EPA findings was clearly correct. The FWPCA reflects a Congressional judgment that the primary repository of expertise on water pollution questions generally, and on the environmental impacts of heat specifically, should be the EPA. Indeed, the legislative history of the FWPCA indicates that agencies such as NRC should *not* develop expertise "with respect to water quality considerations." Legislative History of the FWPCA Amendments of 1972 at 139 (Remarks of Senator Baker).[40]

When this case was last before us, we emphasized that a finding of environmental acceptability made by a competent State authority after environmentally sensitive hearings was entitled to "substantial weight" in the conduct of our NEPA analysis. 5 NRC 503, *supra,* at 527. Here the justification for reliance on the EPA findings is much stronger. EPA is a sister Federal agency with expertise in the subject area, and it is being relied on for determination of a single entirely factual issue which Congress has specifically entrusted to it.

But perhaps the strongest reason for accepting as conclusive the EPA determinations of aquatic impact is to avoid protracted relitigation of these factual issues. Where litigants have one full and fair opportunity to contest a particular issue, they need not be given a second opportunity to reopen the whole matter before another tribunal where the same issue is relevant.[41] The

[39]See also 5 NRC 39, *supra,* at 52, n. 20.

Massachusetts argues that the position taken on this issue by the Appeal Board and affirmed by us is inconsistent with the analysis of the Commission's NEPA obligations the Board outlined in the above-cited portions of ALAB-366. The Board explicitly did "consider any adverse environmental impact that would accrue from operation ...," but, since it properly accepted EPA's determination that the magnitude of that impact was slight, its consideration of that impact did not lead it to reject the Seabrook application. 6 NRC 33, *supra,* at 71.

[40]*Cf. U.S. Energy Research and Development Administration* (Clinch River Breeder Reactor Plant), CLI-76-13, 4 NRC 67, 83-84 (1976).

[41]Our position on this issue is consistent with the approach recently taken by the Civil Aeronautics Board (CAB) in a similar situation. The Department of Transportation had conducted a full NEPA analysis of a proposal to permit a limited number of Concorde flights to this country and had approved the proposal. Thereafter, the CAB was asked to undertake a second environmental analysis of those flights. The CAB noted that all environmental issues

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Board quoted *United States* v. *Utah Construction and Mining Company,* 384 U.S. 394, 421-22 (1966), for the proposition that where another agency has acted

> "in a judicial capacity and resolve[d] disputed issues of fact properly before it which the parties have had an adequate opportunity to litigate," we will not hesitate to give *res judicata* or collateral estoppel effect to its findings "to enforce repose." ALAB-422 at 75.

As we recently noted, "[a]lthough these judicially developed doctrines are not fully applicable in administrative proceedings ... the considerations of fairness to parties and conservation of resources embodied in them are relevant here." *Houston Lighting and Power Company, et al.* (South Texas Project, Units 1 and 2), CLI-77-13, 5 NRC 1303, 1321 (1977). See K. Davis, Administrative Law Treatise, § 18.02 at 360 (3rd ed. 1972).

The EPA regulations provide for a formal adjudicatory hearing before the Regional Administrator on the issue of aquatic impact. SAPL-Audubon, the intervenor seeking to litigate such impact questions here, requested and received such a hearing. EPA's regulation gave SAPL-Audubon the right to raise contentions, to present witnesses, and to cross-examine witnesses presented by EPA and by the applicant. See 40 CFR §125.36 (1976). Apart from these familiar procedural rights, where one agency has given collateral estoppel effect to the findings of another agency, the courts have focused on the nature and purpose of the two proceedings, the relative expertise of the agencies involved, and other relevant policy considerations. See generally *Utah Construction, supra* at 422; *FTC* v. *Texaco,* 555 F.2d 862, 879-81, 893-94, 923-35 (D.C. Cir. 1977)(*en banc*)(majority, concurring and dissenting opinions); *Safir v. Gibson,* 432 F.2d 137, 148 (2nd Cir.)(Friendly, Ch. J.), *certiorari denied,* 400 U.S. 942 (1970). Here the aquatic impacts were crucial to EPA's Section 316 determination. Under that provision, EPA had to approve a cooling intake system which would reflect the "best technology available for minimizing adverse environmental impact," and a discharge system that would not imbalance the marine populations. EPA's cooling system decision therefore not only is sensitive

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relating to the Concorde flights had previously been fully considered by DOT. Expressing the view that for it to conduct further duplicative proceedings "would serve no useful purpose," the Board held that such a proceeding was not required by NEPA. *Petition of Environmental Defense Fund, Inc.*, CAB Order 76-4-21 at 3 (April 6, 1976). Like the EPA decision on which we rely here, the Department of Transportation decision relied on by the CAB was under judicial review at the time.

to aquatic impacts, it is controlled by them. In these circumstances, we should not go behind EPA's determinations unless compelled to do so.[42]

SAPL-Audubon is appealing aspects of the EPA Administrator's review of the Regional Administrator's decision. For the reasons already set forth, we will nevertheless rely on determinations reached in that proceeding subject to possible reconsideration following its judicial review.

SAPL-Audubon argues that the Appeal Board's reliance on the EPA decision, without circulation for comment of a supplement to the impact statement discussing changed locations of the seawater intakes, violates NEPA. There is no reason in this case why a supplement should have been recirculated after the EPA decision. The CEQ guidelines provide that an agency may "at any time" supplement or amend an EIS and that recirculation for comment depends on the particular circumstances. 40 CFR §1500.11(b). In our view, the change from the inshore to the offshore location for the cooling system intakes does not present an appropriate case for recirculating for further comments. First, since the decision as to intake location is solely within EPA's jurisdiction, and since as discussed above the Commission is bound by EPA's determination of the magnitude of the associated impacts, any comments could not have been used by the Commission either as a basis for considering possible changes in the location or as a basis for reevaluating the magnitude of those impacts. Moreover, the Administrator found that the effect of moving the intake from the inshore to the offshore location "... will further minimize any potential environmental effects." EPA Administrator's June 17 Decision at 24. While circulation of a supplement may well be appropriate or necessary where the change in the proposed action has significant aggravating environmental impacts, there is no reason for a supplement when, as here, the change

[42]Intervenors argue that our action here—accepting EPA's determination of the magnitude of aquatic impacts instead of ourselves determining it—is in conflict with the spirit if not the letter of *Calvert Cliffs' Coordinating Committee* v. *AEC*, 449 F.2d 1109 (D.C. Cir. 1971). We reject that argument for two reasons. First, the "spirit" of the *Calvert Cliffs'* decision means to us that we must consider all environmental factors in the course of making our own environmentally sensitive decision on licensing a proposed facility. *See* 449 F.2d *supra* at 1122. This the Appeal Board did. Neither the spirit nor the letter of *Calvert Cliffs'* demands that the magnitude of each of those impacts be measured or determined solely by NRC personnel as long as they are fairly and accurately determined. The second reason is that the only language in *Calvert Cliffs'* that contemplated the Commission's rejecting an EPA decision—by imposing a stricter effluent limitation—has been specifically overruled by Congress in Section 511(c)(2) of the FWPCA.

Our action in this case rests on the nature and extent of the EPA proceedings. In future cases where EPA has made the necessary factual findings for approval of a specific once-through cooling system for a facility after full administrative proceedings, we expect our adjudicatory boards to do as we have done today. There is no question before us as to how to treat other EPA actions reached through other proceedings, and we express no view in that regard.

mitigates such impact.[43] *Cf. Environmental Defense Fund* v. *Froehlke,* 368 F. Supp. 231, 237 (W.D. Mo. 1973), *aff'd.* 497 F.2d 1340 (8th Cir. 1974).

III. ALLEGED APPEAL BOARD DISTORTIONS OF THE RECORD

In its petition for review, NECNP asserted that the Appeal Board "distort[ed] the meaning of the testimony, and thus, its rulings are in error." In our Order granting review we invited NECNP to provide us with "specific instances where testimony distorted by the Appeal Board resulted in erroneous rulings ...." With one possible exception relating to the seismic issue, NECNP's response does not provide any specific instances to support its claim. Indeed, although NECNP repeats its "distortion" claims and adds charges of "stretching" and "skew[ing]," the section of its brief devoted to this issue offers no citation to the record made before the Licensing Board. Without such citations we cannot test the validity of NECNP's claims.

The Commission's regulations explicitly provide that the Commission or the Appeal Board has authority to modify or set aside findings made by the Licensing Board. 10 CFR §§2.740(b), 2.785. This accords with well-established principles of administrative law. 5 U.S.C. 558; Attorney General's Manual on the Administrative Procedure Act (1947) at 83. None of the distortions offered by NECNP involves issues as to the credibility of witnesses, the one area where the reviewing body's fact-finding power may be somewhat limited. In the absence of specific explanations of how the record was allegedly distorted and of record citations from the NECNP in support of its distortion claims, both of which were contemplated by our Order granting review, further consideration of those claims is unwarranted.

We leave aside the extensive discussion of the Appeal Board's treatment of Dr. Chinnery's seismic testimony. Since we do not yet have before us Mr. Farrar's dissenting opinion on the seismic issue, we have decided to reserve judgment until we are able to consider that issue with the views of the entire Appeal Board before us. We note in that regard that Mr. Farrar has assured us resolution of his concerns will not be foreclosed by construction taking place in the near future. 6 NRC 33, *supra,* at 106.

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[43] In the course of its argument SAPL implies that 10 CFR §51.52(b)(3), providing that the FES is deemed modified by subsequent decisions of our adjudicatory tribunals, violates NEPA. Two courts of appeal have approved of that rule. The Court of Appeals for the District of Columbia Circuit has approved of our practice as not departing "from either the letter or the spirit of [NEPA]." *Citizens for Safe Power* v. *NRC,* 524 F.2d 1291, 1294 n. 5 (D.C. Cir. 1975). See also *Ecology Action* v. *AEC,* 492 F.2 998, 1001-02 (2nd Cir. 1974), where Judge Friendly recognized that omissions from an FES can be cured by subsequent consideration of the issue in an agency hearing.

IV. PRESUMPTIVE VALIDITY OF THE SUPPLEMENTAL INITIAL DECISION

We also asked the parties to discuss whether the Appeal Board erred in treating the July 7, 1977, Supplemental Initial Decision ("SID") of the Licensing Board as presumptively valid. Both NECNP and SAPL raise arguments similar to those made by Mr. Farrar in his dissent to ALAB-423; namely, that when viewed against the background of the original Initial Decision and in light of alleged weaknesses in it, the SID is a "fit candidate for reversal" and should not have been relied upon in lifting the stay at Seabrook.

When we granted review of this issue, it was central to the resumption of construction at Seabrook. In ALAB-416, 5 NRC 1438, 1440 (June 29, 1977), decided before the SID, the Appeal Board held that the permits had to remain suspended at least until the Licensing Board ruled on the issues presented in the SID. In ALAB-423, 6 NRC 115, *supra,* at 117, decided after the SID, the Appeal Board majority cited issuance of the SID as one of the recent developments supporting reinstatement of the permits. Subsequent to our grant of review, however, we directly addressed the resumption of construction issue in the context of NECNP's stay motion[4] and the presumptive validity issue thereby lost its significance.

The decision of the Appeal Board is affirmed. The Commission staff is directed to prepare and present to us a proposal which can serve as the basis for initiating the rulemaking described above.

It is so ORDERED.

By the Commission

Samuel J. Chilk
Secretary of the Commission

Dated at Washington, D.C.,
this 6th day of January 1978.

[4]Under our recently adopted certiorari and stay rules, 10 CFR §§2.786 and 2.788, if a party is aggrieved by an Appeal Board decision denying a stay, that party should file stay papers with us pursuant to 10 CFR §2.788(a) rather than seeking review of the Board decision under §2.786(b). If the Board makes a decision on the merits and also rules on a stay in the same decision, both procedures should be employed if a party seeks both a stay and review.

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From: Chazell, Russell
To: Freeman, Stanley
Subject: ADAMS Upload
Date: Wednesday, April 03, 2013 10:03:00 AM
Attachments: Private Fuel Storage, LLC (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23 (2000).docx
52NRC23.pdf

Hi Stan,

Please upload the attached document to ADAMS. It will be going into the FQ SECY paper references package we discussed yesterday. (665P to follow).

Thanks,
Russ

Russell E. Chazell
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