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ACRS-2228

PDR 080585

9/2/84

Meeting Minutes

ACRS Subcommittee Meeting on Class 9 Accidents

July 23, 1984 - Washington, DC

The ACRS Subcommittee on Class-9 Accidents held a meeting on July 23, 1984, in Room 1046, 1717 H Street, N.W., Washington, D.C. The purpose of the meeting was to meet with New York Power Authority (NYPA) to discuss their recent source term analyses for the Indian Point (IP-3) nuclear power plant. Notice of this meeting was published in the Federal Register on Friday, July 6, 1984. There were no oral or written statements from members of the public at this meeting. A complete set of meeting handouts is available at the ACRS headquarters in the ACRS Files. Included with these minutes are: Attachment A - Federal Register Notice; Attachment B - Meeting Schedule; Attachment C - Attendance List; and Attachment D - Reference List.

Meeting Highlights, Agreements, and Requests

1. W. Kerr opened the meeting by stating he commended NYPA for the initiative and energy they have shown in addressing the source term issue. He stated he encourages the industry to take this type of initiatives and looked forward to reviewing NYPA calculations and results.
2. H. Specter gave a brief introduction. He stated that the risk dominant sequence for latent fatalities is a slow overpressurization accident and the risk dominant sequence for early fatalities was the Event V scenario. NYPA did the source term analysis only for the overpressurization accident. For the Event V scenario they looked for ways to decrease the probability of the event.

He noted that their sensitivity studies indicated that a factor of ten reduction in WASH-1400 type source terms with the current evacuation model led to a 400 factor reduction in early fatalities.

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- If the factor were 15 with evacuation, there would be no early fatalities and if the factor was 45, there would be no early fatalities assuming the worst weather conditions and no evacuation.
3. H. Specter said they assumed that the containment failed at 141 psia. For their source term calculations they assumed a .1% per day leakage before failure and that the containment failed at 24 hours after the accident.
 4. C. Siess inquired if NYPA had considered other containment failure models such as a pressure-temperature time dependent leakage rate. He noted some studies have indicated the level of leakage may be large enough to preclude the failure of the containment structure. C. Siess stated NYPA should review the recent NRC investigation of containment failure modes. He thought it would be useful in their work.
 5. P. Davis stated that the NYPA report addresses only four of the fission products. He asked how did NYPA assure themselves that the other fission products were not of risk significance.
 6. W. Kerr asked if any of this source term analysis was available during the IP-3 hearings. H. Specter stated almost all this analysis was performed after the hearing. W. Kerr asked where does NYPA feel they are with respect to source term calculation for IP-3. H. Specter stated NYPA beleives they have sufficient analyses to make a decision. If they can demonstrate that the containment does not fail early, they will get very low release fractions.
 7. W. Kerr noted a good base case for their codes might be a TMI-2 like scenario. H. Specter stated this might be interesting but NYPA has no plans to perform such a calculation.

8. P. Bieniarz stated they have made the following code modifications:

- a. Combining of MERGE, CORSOR, and TRAP-MELT into one code.
- b. Synchronization of event timing in all codes.
- c. Inclusion of model to account for heat losses from primary system.
- d. Inclusion of a rigorous fission product heating model.
- e. Implemented a resuspension model.
- f. General coding modifications to improve running efficiency (vectorization) and minimize manual input.

Their conclusions are as follows:

- a. The source terms they now calculate are a small fraction of the source term calculated in the previous studies (IPPSS and WASH-1400).
- b. The mode and exact time of late containment failure is not critical due to processes which remove fission products from the atmosphere within 6 to 8 hours after the accident.
- c. The need for further research into primary system retention of fission products appears to be questionable.
- d. The fission products released from the primary system and from the melt by core-concrete interaction are readily removed by natural processes occurring in the containment. Condensation

of volatiles onto aerosols, agglomeration, and gravitational settling dominate the removal processes.

- e. Iodine and cesium are still the major contributors to early and latent fatality risks. Environmental releases are not sensitive to primary system phenomena model (e.g., presence of insulation, fission product heating, log normal or "bin" aerosol model).
- f. Fission product heating of structural surfaces in the primary plays an important role.
- g. This heating probably leads to system failure and subsequent primary system depressurization prior to lower reactor head failure.

P. Bieniarz said they do not want to duplicate NRC efforts. They expect to capitalize on the work being done elsewhere. They did not validate the codes. M. Bender stated NYPA needed to study the phenomena more rather than depending on the NRC Staff to verify it.

- 9. M. Bender, M. Corradini and W. Kerr stressed that NYPA needed to validate the models in the codes. For instance, M. Corradini inquired if NYPA verified that the codes balance mass and energy. W. Kerr asked what confidence NYPA had that the codes could predict core behavior. He is concerned about the industry's propensity to verify codes with another code. He agreed that it is important to know that codes predict the same results, however, he stressed codes can only be verified by studying the phenomena. He noted the logic of picking the "conservative" model is questionable. He stated that to be conservative one must know the answer, ignorance is not a synonym for conservatism.

10. C. Siess asked could the code handle a pressure-temperature time dependent leakage rate. P. Bieniarz answered yes.
11. W. Kerr asked whether NYPA has decided what is the correct source term to be used for decisions. H. Specter stated for IP-3 the source term is relatively code independent. That is the magnitude of the source term that NYPA is calculating for early fatalities is low enough that they feel they can tolerate a fair amount of uncertainty and still be below an early fatality threshold. P. Bieniarz stated they will incorporate new data as it appears but they believe with calculated releases so low even an increase by a factor of 1000 in the source term would not increase consequences significantly.
12. W. Kerr stated he was concerned that the conclusions reached today seem reasonable but the uncertainties are still large and we may have neglected something, as examples he mentioned:
 - a. 10 to 15 years ago the assumption was that given the amount of water available, given the fact that the iodine plates out, the likelihood of a large release out of containment is very low. Today we go through sophisticated codes, determine that iodine is readily dissolved in water, absorbed on surfaces, and readily plates out however, the confidence in the calculated release fractions are no better than they were. The uncertainties need to be addressed.
 - b. The current concensus is that large dry containments don't leak much and not much is going to be released. About ten years ago the consensus was if you could resolve the large LOCA problem, reactors would be safe. Today no one is worried about large LOCA's but everybody is looking at small LOCA's. Could we have missed something that 5 years from now is going to change our perspective of reactor safety.

13. R. Deem stated that NYPA did not do the source term analysis for the Event V scenario. Rather they performed various analyses to determine what could be done to decrease the probability of the event. Based on their analyses, by strengthening the one overstressed support outside the containment building and given that their design allows time (hours) for operator actions, the Event V has negligible risk production potential at IP-3.

Meeting Adjournment.

NOTE: ADDITIONAL MEETING DETAILS CAN BE OBTAINED FROM A TRANSCRIPT OF THIS MEETING AVAILABLE IN THE NRC PUBLIC DOCUMENT ROOM, 1717-H STREET, N.W., WASHINGTON, D.C., OR ONE CAN BE PURCHASED FROM FREE STATE REPORTING, 99 CATHEDRAL STREET, ANNAPOLIS, MD. 21404 MD OFFICE (301) 268-0232 OR DC OFFICE (202) 261-1902.

ATTACHMENT A

AW

packaging and transportation of low-level radioactive waste. In the exercise of this responsibility, the Commission regularly conducts a review of the transportation programs of its licensees including the licensees' procedures for quality assurance, packaging, marking, labeling and loading of vehicles. This transportation program review usually has been found adequate to ensure licensee compliance with the Commission's regulations regarding low-level radioactive waste packaging and transportation without the need for Commission inspection of each individual shipment.

Under Section 274b. of the Atomic Energy Act of 1954, as amended, the Commission in carrying out its licensing and regulatory responsibilities under the Act is authorized to enter into Memoranda of Understanding (agreements) with any State to perform inspections or other functions on a cooperative basis as the Commission deems appropriate. While the Commission does not conduct on-site inspections of every low-level waste shipment of its licensees, it desires to foster the goals of the Waste Policy Act and the State of Illinois.

Accordingly, this Memorandum of Understanding between the State of Illinois and the NRC establishes mutually agreeable procedures whereby the State may perform inspection functions for and on behalf of the Commission at certain NRC reactor and materials licensees' facilities which generate low-level radioactive waste.

It is hereby agreed between the Commission and the State as follows:

1. The Commission hereby authorizes the State to perform, for and on behalf of the commission, the following functions with respect to low-level radioactive waste, as defined in Section 2(16) of the Nuclear Waste Policy Act of 1982, in the possession of Commission licensees located within the State:

(a) Inspections to determine compliance with the Commission's rules and regulations regarding the packaging and transportation of low-level waste destined for disposal at a commercial low-level radioactive waste disposal site, and

(b) Notification of Commission licensees and the Commission in writing of any violation of Commission regulations disclosed by such inspections. All enforcement action pursuant to this Subagreement resulting from such inspections will be undertaken by the Commission.

The Commission does not normally evaluate the State's ability to perform such functions, however, the State agrees to utilize personnel

knowledgeable in radiation safety, waste packaging requirements and packaging and transportation regulations. Such functions as are performed by the State pursuant to hereto shall be performed without cost or expense to the Commission, except for situations where NRC finds it appropriate to provide training to the State.

2. The authority to inspect NRC licensees pursuant to the preceding paragraph is limited to the licensee's low-level waste packaging and transportation procedures.

3. In taking any action authorized hereunder, the State shall call undertake to amend or revoke Commission licenses. This Memorandum, however, shall not be construed to preclude the State from exercising any authority lawfully available to it under its own laws.

4. Efforts will be made by both parties to avoid duplicative enforcement action against an NRC licensee for the same violation. However, this is not meant to preclude appropriate complementary actions for the same violation, such as termination of a user permit by the State and NRC enforcement action.

5. Nothing herein shall be deemed to authorize the State to inspect or otherwise enter the premises of any licensee of the Commission which is a Federal instrumentality without the prior consent of licensee.

6. Nothing herein shall be deemed to preclude or affect in any manner the authority of the Commission to perform any or all of the functions described herein.

7. Nothing herein is intended to restrict or expand the statutory authority of NRC or the State or to affect or vary the terms of any agreement in effect under the authority of Section 274b. of the Atomic Energy Act of 1954, as amended.

8. Nothing herein shall be deemed to permit the State to impose packaging or transport standards beyond those contained in Federal regulations.

9. The principal NRC contact under this Memorandum of Understanding shall be the Emergency Preparedness and Radiological Safety Branch Chief for reactor licensees and the Materials and Safeguards Branch Chief for materials licensees. The principal State contact shall be the Manager, Office of Waste and Transportation Management.

10. This MOU shall become effective upon signing by the Director, Department of Nuclear Safety, State of Illinois, and the Regional Administrator, Region III, Nuclear Regulatory Commission and shall remain in effect

permanently unless terminated by either party on thirty days prior written notice.

Date this 7th day of June 1984 at Glen Ellyn, IL.

James G. Keppler,

Regional Administrator.

For the State of Illinois:
Don Etchison.

Dated this 11th day of June 1984 at Springfield, IL.

(FR Doc. 84-17081 Filed 7-4-84; 8:43 am)

BILLING CODE 7590-01-M

Advisory Committee on Reactor Safeguards, Subcommittees on Class-9 Accidents and Indian Point; Meeting

The ACRS Subcommittees on Class-9 Accidents and Indian Point will hold a combined meeting on July 23, 1984, in Room 1046, at 1717 H Street NW, Washington, DC.

The entire meeting will be open to public attendance.

The agenda for subject meeting shall be as follows:

Monday, July 23, 1984—8:30 a.m. Until the Conclusion of Business

The Subcommittees will discuss New York Power Authority's developments in the source term area and the Indian Point PRA with regard to the severe accident policy.

Oral statements may be presented by members of the public with concurrence of the Subcommittee Chairman; written statements will be accepted and made available to the Committee. Recordings will be permitted only during those portions of the meeting when a transcript is being kept, and questions may be asked only by members of the Subcommittees, their consultants, and Staff. Persons desiring to make oral statements should notify the ACRS staff member named below as far in advance as practicable so that appropriate arrangements can be made.

During the initial portion of the meeting, the Subcommittees, along with any of their consultants who may be present, will exchange preliminary views regarding matters to be considered during the balance of the meeting.

The Subcommittees will then hear presentations by and hold discussions with representatives of the NRC Staff, their consultants, and other interested persons regarding this review.

Further information regarding topics to be discussed, whether the meeting has been cancelled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements

and the time allotted therefore can be obtained by a prepaid telephone call to the cognizant ACRS staff member, Mr. Alan B. Wang (telephone 202/634-3267) between 8:15 a.m. and 5:00 p.m., edt.

Dated: July 2, 1984.

Morton W. Libarkin,

Assistant Executive Director for Project Review.

[FR Doc 84-1790 Filed 7-5-84; 8:45 am]

BILLING CODE 7590-01-M

[Docket No. 40-2061-SC; ASLBP No. 84-502-01 SC]

**Kerr-McGee Chemical Corp.;
Establishment of Atomic Safety and
Licensing Board**

Pursuant to delegation by the Commission dated December 29, 1972, published in the Federal Register, 37 FR 28710 (1972), and §§ 2.105, 2.700, 2.702, 2.714, 2.714a, 2.717 and 2.721 of the Commission's Regulations, all as amended, an Atomic Safety and Licensing Board is being established in the following proceedings to consider and decide an Answer and Demand for Hearing filed in answer to an Order To Show Cause.

Kerr-McGee Chemical Corporation

*West Chicago Rare Earths Facility;
Source Material License No. STA 380
(Kress Creek Decontamination)*

This Board is being established pursuant to a Commission Order, dated June 28, 1984, concerning an Order To Show Cause issued on March 2, 1984, by the Director of the Office of Nuclear Material Safety and Safeguards, which ordered the Kerr-McGee Chemical Corporation to show cause why it should not be required to take certain actions with respect to the cleanup of radiologically contaminated areas in and along Kress Creek and the DuPage River, West Chicago, Illinois. 49 FR 9289 (March 12, 1984).

The Board is comprised of the following administrative judges:

**John H. Frye, III, Chairman, Atomic Safety and Licensing Board Panel,
U.S. Nuclear Regulatory Commission,
Washington, D.C. 20555**
Dr. Peter A. Morris, Atomic Safety and Licensing Board Panel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555
Dr. James H. Carpenter, Atomic Safety and Licensing Board Panel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555

Issued at Bethesda, Maryland, this 29th day of June, 1984.

Robert M. Lazo,

Acting Chief Administrative Judge, Atomic Safety and Licensing Board Panel.

[FR Doc 84-1790 Filed 7-5-84; 8:45 am]

BILLING CODE 7590-01-M

OFFICE OF MANAGEMENT AND BUDGET

Office of Federal Procurement Policy

Proposed Policy Letter on the Federal Acquisition Regulations System

AGENCY: Office of Management and Budget.

ACTION: Notice for comment.

SUMMARY: The purpose of this notice is to solicit the views of Federal agencies and the private sector on a proposed OFPP policy letter on the Federal Acquisition Regulations System.

DATE: Comments are due on or before August 17, 1984.

FOR FURTHER INFORMATION CONTACT: William Maraist, Office of Federal Procurement Policy, OMB, (202-395-3300).

SUPPLEMENTARY INFORMATION: The Office of Federal Procurement Policy Act (Pub. L. 93-400 as amended by Pub. L. 98-83 and Pub. L. 98-191) provides, in part, the following:

Section 3(4) the term "single system of Government-wide procurement regulations" means (A) a single Government-wide procurement regulation issued and maintained jointly by the General Services Administration, the Department of Defense, and the National Aeronautics and Space Administration * * * and (B) agency acquisition regulations implementing and supplementing the Government-wide procurement regulation * * *.

Section 6(a). The Administrator shall provide overall direction of procurement policy and leadership in the development of procurement systems of the executive agencies.

Section 6(d). The functions of the Administrator shall include—(1) providing leadership and ensuring action by the executive agencies in the establishment, development and maintenance of the single system of simplified Government-wide procurement regulations and resolving differences among the executive agencies in the development of simplified Government-wide procurement regulations, procedures and forms.

Section 6(b). In any instance in which the Administrator determines that the DOD, NASA and the GSA are unable to agree on or fail to issue Government-wide regulations, procedures and forms in a timely manner, the Administrator may * * * prescribe Government-wide regulations, procedures

and forms which shall be followed by executive agencies * * *.

The proposed policy letter: (a) Designates the Federal Acquisition Regulations System as the single system or Government-wide procurement regulations referred to in the OFPP Act; (b) requires certain information flow in the FAR System; (c) requires that issues on which DOD, GSA and NASA are unable to agree be referred to the Administrator for resolution; and (d) requires that decisions not to develop FAR coverage on issues affecting members of both the Defense Acquisition Regulatory Council and the Civil Agency Acquisition Council (leaving such issues to be covered in agency supplementing regulations) shall be referred to the Administrator.

Public Meeting: A public meeting, for the purpose of providing an opportunity for interested parties to present their views in person, is scheduled to be held in Room 2008, of the New Executive Office Building, on August 2, 1984, at 10:00 a.m. Anyone interested in making a presentation or in attending the meeting should contact Margaret Davis (202-395-3300) by August 1, 1984, for clearance to the building.

Comments: Agencies and interested parties are invited to comment on this proposed policy letter. Comments should be forwarded to William Maraist, Office of Federal Procurement Policy, OMB, 726 Jackson Place, N.W., Washington, DC 20503 on or before August 17, 1984. Mr. Maraist may be contacted by phone on (202) 395-3300.

Dated: June 29, 1984.

LeRoy J. Haugh,

Associate Administrator for Policy Development.

OFPP Policy Letter 84—

To the Heads of Executive Departments and Establishments

Subject: Federal Acquisition Regulations System

1. Purpose: The purpose of this Policy Letter is to implement certain requirements of the Office of Federal Procurement Policy Act (Pub. L. 93-400 as amended by Pub. L. 98-83 and Pub. L. 98-191) concerning the establishment, development and maintenance of the single system of simplified Government-wide procurement regulations. It also rescinds and replaces Policy Letter 80-5 dated July 10, 1980.

2. Authority: This Policy Letter is issued pursuant to Section 6 of the Office of Federal Procurement Policy Act, as amended, 41 U.S.C. 405 *et seq.* (the Act).

3. Background: Pub. L. 93-400, August 30, 1974, which established the Office of

ATTACHMENT B

ACRS CLASS-9 ACCIDENTS SUBCOMMITTEE MEETING

JULY 23, 1984 - WASHINGTON, D.C.

*** TENTATIVE SCHEDULE ***

	<u>SPEAKER</u>	<u>PRESENTATION TIME</u>	<u>ACTUAL TIME</u>
1. Chairman's Opening Statement	W. Kerr	10 Min.	8:30 am
2. Introduction	H. Specter NYPA	20 Min.	8:40 am
a. Historical Background			
b. Identification of Risk Dominant Sequences			
c. Earlier Source Term Efforts			
d. Other Organization's Involvements			
3. Present NYPA's Source Term Efforts		135 Min.	9:00 am
a. Identification of Codes Used			
b. Improvements Made to Codes			
c. Analysis of TMLB Sequence			
d. Analysis of Pump Seal Sequence			
***** BREAK *****		15 Min.	10:30 am
3. Continue			10:45 am
4. Health and Economic Consequences		15 Min.	11:30 am
5. Interfacing Systems LOCA		45 Min.	11:45 am
6. Conclusion		30 Min.	12:30 pm
***** LUNCH *****		60 Min.	1:00 pm
7. Discussions with the NPC Staff on Indian Point PRA Review.	F. Rowsome	180 Min.	2:00 pm
***** BREAK *****		15 Min.	3:30 pm
7. Continue			3:45 pm
***** ADJOURNMENT *****			5:00 pm

ATTACHMENT C

THE 5:30 a.m.
DATE 7-23-84

MEETING ROOM

1046

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MEETING

Class-9 Accidents

ATTENDEES PLEASE SIGN BELOW

(PLEASE PRINT)
NAME

BADGE NO.

AFFILIATION

1 W. Kerr		ACRS Chairman
2 R. Artmann		ACRS Member
3 C. Sipes		"
4 D. Wood		"
5 D. Mueller		"
6 P. Davis		HCRS Consultant
7 M. Conradson		"
8 M. Bowder		"
9 K. Bernier		NRC/RES
10 O. Merrill		ACRS STAFF
11 S. Seth		ACRS Senior Fellow
12 Raj Tripathi		ACRS Senior Fellow
13 S. Masciulli		New York Power Authority
14 T. V. Brannetti		N.Y.P.A.
15 R. DEEM		N.Y.P.A.
16 J. F. DAVIS		NYPA
17 J. S. IVER		NYPA
18 P. P. Bieniarz		RMA (NYPA)
19 Doug Gaynor		Con Edison
20 Pete Kokolakos		NYPA

ME 8:30am

MEETING ROOM 1046

DATE 7-23-84

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MEETING

Class 9 Accidents

ATTENDEES PLEASE SIGN BELOW

(PLEASE PRINT)
NAME

BADGE NO.

AFFILIATION

1	JENN LAMMERS	E-0154	NYPA
2	CARL PATRICK	E-0110	NYPA
3	Steve Sholly	E-0249	U.C.S.
4	Walt Tice	E-0174	BECC
5	Steve Blazo	E-0176	Bechtel Power Corp.
6	Deborah Bunkle		Morgan Assoc.
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DATE 8:30 am
7-84

MEETING ROOM 1046

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
 MEETING

Class-9 Accidents

ATTENDEES PLEASE SIGN BELOW

PLEASE PRINT) NAME	BADGE NO.	AFFILIATION
BIENIARZ	E 0256	Risk Management Associates
BRINKER	E 0151	" "
Kelly Hall	E 0152	
P. B. Dallis	E 0214	Consultant
R. Deen	E 0215	New York Power Authority
S. Marshall	E 0146	New York Power Authority
J. F. Davis	E 0221	New York Power Authority
S. S. Iyer	E 0237	New York Power Authority
MARTIN T. F.	E 0176	FUTURE VIEW
D. Gagnier	E 0173	Consolidated Edison
J. H. H. H.	E 0173	FIRE
	E 0173	Union Insurance Co.
	E - 0126	New York Power Authority
	E - 0147	N.Y.P.A.
John V. K. K.	E - 0242	N.Y.P.A.
J. V. BRUNETTI	E - 0174	BOSTON ED.
L. C. Lebe	E - 0247	Longman Center
R. B. B.	E - 0249	U.S.
S. S. S.	E - 0110	N.Y.P.A.
Carl P. P.	E - 0176	Bechtel
S. R. BLAZO		

THE System
DATE 7-23-84

MEETING ROOM

1046

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
MEETING

Class-9 Accidents

ATTENDEES PLEASE SIGN BELOW

(PLEASE PRINT)
NAME

BADGE NO.

AFFILIATION

1	JOHN LAMBERSKI	E-0150	NEW YORK POWER AUTHORITY
2	BRENT L. KRANDENBURG	E-0148	CON EDISON, NY
3	Charles M. Pruitt	E-0182	NYPA
4	E. ASSETT	E-0122	PLG
5	M. TYLER	E-0174	FUTURE VIEW
6	I. Schoolcraft	E-0182	Future View
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ATTACHMENT D

Reference List:

1. Memorandum from A. Wang to W. Kerr, "Project Status Report for the ACRS Class-9 Accidents Subcommittee Meeting, July 23, 1984, Washington, D.C.," dated July 13, 1984.
2. "Source Term Safety Assessment," New York Power Authority and Risk Management Associates, dated July 1983.
3. Memorandum from M. Bender to W. Kerr, "Commentary on IP-3 "Source Term Safety Assessment", " dated July 27, 1984.
4. Memorandum from M. Corradini to W. Kerr, "Comments on the ACRS Class-9 Committee Meeting - July 23rd", dated July 31, 1984.