



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

October 30, 1986

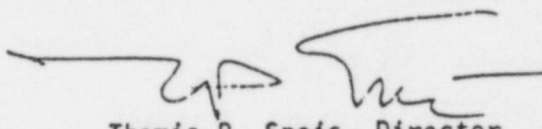
MEMORANDUM FOR: Raymond Fraley, Executive Director
Advisory Committee on Reactor Safeguards

FROM: Themis P. Speis, Director
Division of Safety Review and Oversight
Office of Nuclear Reactor Regulation

SUBJECT: CHERNOBYL INFORMATION FOR SUBCOMMITTEE REVIEW

As discussed with Richard Savio, of the ACRS Staff, we enclose draft write-ups on the various Chernobyl candidate issues, as background for the review by the Subcommittee on Safety Philosophy, Technology, and Criteria, scheduled for November 5. The write-ups are preliminary, but they have reached a stage at which they should be suitable as background for the scheduled Subcommittee review.

Because of the preliminary, pre-decisional nature of the write-ups, they are not intended for public release at this time.


Themis P. Speis, Director
Division of Safety Review and Oversight
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc: V. Stello	R. Savio
E. Beckjord	R. Lobel
H. Denton	S. Acharya
J. Taylor	B. Boger
R. Vollmer	F. Congel
E. Jordan	O. Lynch
R. Bernero	B. Morris
F. Miraglia	H. Richings
T. Novak	S. Schwartz
W. Russell	G. Sege
E. Rossi	B. Sheron
R. Hernan	L. Soffer
	J. Stang

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10/30/86

Jane Dawdy called about 3 meetings - I gave her locations - told her they were general topics - basically in preparation for draft report - and if she or anyone else is planning on attending to cell and make sure they're still being held, since they might be cancelled.

She asked when the report was to come out - I said we estimated - end of November - Steve was getting some info from BNL on November 7, then we would have to add at least 2-3 weeks for NEC review.

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11/3/86

Beth,

The attached materials were provided to Vince by PSNH in response to Vince's oral questions. I have the originals, now. They include the following oversized figures which are not included in the attachment:

Intake Tunnel Chlorination & Distribution System

P&I Diagram 9763-F-202484

Circulating Water System - Marine Work General
Arrangement Intake and Discharge Shafts

9763-F-103000

Steve Long

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IV. EMERGENCY PLANNING

1. ADEQUACY OF EMERGENCY PLANNING ZONE
- 2.A LONG-TERM RELOCATION
- 2.B DECONTAMINATION
3. USE OF POTASSIUM IODIDE
4. DATA ACQUISITION AND REPORTING
5. INGESTION PATHWAY MONITORING AND INGESTION OF FOODSTUFFS
6. MEDICAL SERVICES
7. ACCIDENT RECOVERY

1. ADEQUACY OF EPZ DISTANCES

CONCLUSIONS:

- ° ASSESSMENT OF U.S. EPZ DISTANCES ONLY IN TERMS OF CHERNOBYL IS UNWARRANTED.
- ° STAGED OR PHASED (DISTANCE AND TIME) ACTIONS LIKELY
- ° NOTHING IN CHERNOBYL ACCIDENT IMPLIES 10-MILE PLUME EXPOSURE PATHWAY IS ADEQUATE.

RECOMMENDATIONS:

- ° FURTHER EXPLORE OPTION OF SHELTERING VS. EVACUATION AT CLOSE DISTANCES
- ° RE-ASSESS ROLE OF 50 MILE INGESTION EXPOSURE EPZ

2.A LONG-TERM RELOCATION

CONCLUSION:

- ° IT APPEARS THAT THE U.S.S.R, CIVIL DEFENSE PROGRAM PROVIDED THE UNDERPINNINGS FOR THE CHERNOBYL RELOCATION EFFORT.

RECOMMENDATION:

- ° FRPCC SHOULD REVIEW THE ISSUE AND PROVIDE RECOMMENDATIONS.

2.B DECONTAMINATION

CONCLUSION:

- ° U.S.S.R MILITARY CBR PROGRAM PROVIDED THE UNDERPINNINGS FOR THE CHERNOBYL DECONTAMINATION AND STABILIZATION EFFORT.

RECOMMENDATION:

- ° FRPCC SHOULD REVIEW THE ISSUE AND PROVIDE RECOMMENDATIONS INCLUDING DISPOSAL OF THE RADIOACTIVE WASTE GENERATED BY DECONTAMINATION.

3. USE OF POTASSIUM IODIDE

CONCLUSION:

- ° APPEARS THAT U.S.S.R STOCKPILED KI FOR DISTRIBUTION

RECOMMENDATION:

- ° FRPCC SHOULD RE-EXAMINE FEDERAL POLICY

4. DATA ACQUISITION AND REPORTING

CONCLUSION:

- ° USE OF SI UNITS DIDN'T PRESENT A PROBLEM

RECOMMENDATION:

- ° FRPCC IS REVIEWING U.S. RESPONSE TO CHERNOBYL TYPE EVENT.

5. INGESTION PATHWAY MONITORING AND INGESTION OF FOODSTUFFS

CONCLUSION:

- LARGE LAND AREAS AND GREAT AMOUNTS OF FOODSTUFFS WERE AFFECTED BY THE CHERNOBYL ACCIDENT.

RECOMMENDATION:

- FRPCC SHOULD REVIEW THIS ISSUE

6. MEDICAL SERVICES

CONCLUSIONS:

- ° THERE WAS A MASSIVE U.S.S.R MEDICAL RESPONSE TO THE CHERNOBYL ACCIDENT
- ° IT APPEARS THAT U.S. CAPABILITIES ARE ADEQUATE.

RECOMMENDATION:

- ° FEMA SHOULD CONTINUE TO MONITOR IMPLEMENTATION OF THE ARRANGEMENTS FOR LOCAL MEDICAL SERVICES

7. ACCIDENT RECOVERY

CONCLUSION:

- ° U.S.S.R ACCIDENT MITIGATION WAS AD HOC AND DICTATED RECOVERY PATH (ENTOMBMENT)

RECOMMENDATION:

- ° NRC REVIEW OF ACCIDENT RECOVERY ISSUE IS NECESSARY

11/5/86

CHRONOLOGY OF PROTECTIVE ACTIONS

- 1:23 A.M. APRIL 26 - INHABITANTS OF PRIPYAT (45,000) PEOPLE ORDERED TO MINIMIZE THE TIME SPENT OUTSIDE AND KEEP WINDOWS CLOSED.
- 8:00 A.M. APRIL 26 - OUTDOOR ACTIVITIES IN PRIPYAT WERE BANNED AND KI WAS ADMINISTERED TO SCHOOL CHILDREN.
- MORNING APRIL 27 - INHABITANTS OF PRIPYAT GIVEN KI
- 2:00 P.M. APRIL 27 - INHABITANTS OF PRIPYAT EVACUATED BY 5:00 P.M. (APPROXIMATELY 39 HOURS FROM THE TIME OF THE ACCIDENT) VIA 4000 BUSES AND TRUCKS.
- OVER THE NEXT FEW DAYS ABOUT 90,000 INHABITANTS OF CHERNOBYL AND OTHER TOWNS AND VILLAGES WITHIN 30K. DISTANCE WERE EVACUATED ALONG WITH 10,000-15,000 FARM ANIMALS.

IV. EMERGENCY PLANNING

1. ADEQUACY OF EMERGENCY PLANNING ZONES
2. RELOCATION AND DECONTAMINATION
3. INGESTION PATHWAY MONITORING
4. MEDICAL SERVICES

CONCLUSIONS/RECOMMENDATIONS

1. MEDICAL SERVICES ARE ADEQUATE.
2. STUDY CHERNOBYL ACCIDENT IN COMBINATION WITH NRC SOURCE TERM WORK FOR LESSONS FOR BASIS OF RELOCATION, DECONTAMINATION, AND INGESTION PATHWAY MEASURES.

QUESTION 1.

AS NRC STAFF ARE AWARE, PUBLIC SERVICE OF NEW HAMPSHIRE CONTRACTED FOR, HAS RECEIVED, AND IS CIRCULATING A PROBABILISTIC SAFETY ASSESSMENT UPDATE WHICH THE STAFF INFORMS SUBCOMMITTEE STAFF THAT IT REFERS TO AS THE "SEABROOK STATION PROBABILISTIC SAFETY ANALYSIS UPDATE" (SSPSA UPDATE). ACCORDING TO SUBCOMMITTEE STAFF DISCUSSIONS WITH NRC STAFF, THE SSPSA UPDATE IS COMPOSED OF TWO DOCUMENTS: "SEABROOK STATION RISK MANAGEMENT AND EMERGENCY PLANNING STUDY" AND "SEABROOK STATION EMERGENCY PLANNING SENSITIVITY STUDY." FOR THE PURPOSES OF THIS REQUEST, THE "SSPSA UPDATE" REFERS TO THESE LATTER DOCUMENTS, ANY OTHER DOCUMENTS IDENTIFIED IN SUBSECTION (A) BELOW, AND ANY DOCUMENTS PERTAINING TO ANALYSES OF THE STRENGTH AND FAILURE RATES OF THE SEABROOK CONTAINMENT SHELL AND RELATED SUBSYSTEMS, AND ANY DOCUMENTS RELATED TO OFF-SITE EFFECTS AND CONSEQUENCES IN THE EVENT OF A REACTOR ACCIDENT AND BREACH OF THE CONTAINMENT AT SEABROOK:

(A) IF THERE ARE ANY OTHER DOCUMENTS PREPARED BY PUBLIC SERVICE OF NEW HAMPSHIRE OR ITS CONTRACTOR(S) SINCE JANUARY 1, 1984 THAT PUBLIC SERVICE OF NEW HAMPSHIRE HAS PROVIDED OR SHOWN TO THE NRC STAFF

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THAT ARE MATERIAL OR SUBSTANTIVELY RELEVANT TO THE SSPSA UPDATE OR THAT STAFF HAS REFERRED TO OR UTILIZED IN THE COURSE OF ITS REVIEW OF THE SSPSA UPDATE, PLEASE IDENTIFY THEM AND PROVIDE THEM TO THE SUBCOMMITTEE. RELEVANT SUBJECTS INCLUDE BUT ARE NOT LIMITED TO ANALYSES OF STRENGTH, FAILURE PRESSURES, AND FAILURE MODES OF THE CONTAINMENT AND RELATED SUBSYSTEMS, PROBABILISTIC RISK ASSESSMENT STUDIES FOR SEABROOK SYSTEMS AND SUBSYSTEMS, OFFSITE EFFECTS IN THE EVENT OF AN ACCIDENT AND BREACH OF THE CONTAINMENT, AND SO FORTH.

ANSWER.

ADDITIONAL DOCUMENTS PREPARED BY PUBLIC SERVICE OF NEW HAMPSHIRE RELEVANT TO THE SSPSA UPDATE WHICH WERE NOT PROVIDED TO CONGRESSMAN MARKEY BY OR BEFORE OUR LETTER OF OCTOBER 2, 1986:

DOCUMENTS PROVIDED ON THE DOCKET: (ENCLOSED)

1. LETTER FROM G. THOMAS TO V. NOONAN, DATED 9/29/86, PROVIDING ADDITIONAL INFORMATION ON SSPSA UPDATE.

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QUESTION 1(A) (CONTINUED)

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2. LETTER FROM J. DEVINCENTIS TO S. LONG, DATED 10/31/86, PROVIDING RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION.
3. "SEISMIC FRAGILITIES OF STRUCTURES AND COMPONENTS AT THE SEABROOK GENERATING STATION, UNITS 1 AND 2," JUNE 1986.

DOCUMENTS NOT YET PLACED ON THE DOCKET:

1. LOCATION OF INTAKE AND DISCHARGE STRUCTURES - (11/3/86).
2. LETTER FROM C. FLMEING TO D. MAIDRAND, "KEY FACTORS INFLUENCING UPDATED ANALYSIS OF INTERFACING LOCA" (10/4/86).
3. DRAFT ANSWER TO NRC'S CONCERNS RELATIVE TO CONTAINMENT LEAKAGE GREATER THAN TECHNICAL SPECIFICATION LIMITS.
4. "ABOUT THE RESPECTIVE ROLES OF RMEPS AND THE SENSITIVITY STUDY."
5. DRAWING OF MODEL No. 45162-SR-60 VALVE.

[Nos. 1-4 PROVIDED AS ENCLOSURE TO QUESTION 17; No. 5 ENCLOSED]

ADDITIONAL DOCUMENTS PREPARED BY PSNH AFTER JANUARY 1984 ARE PROVIDED IN RESPONSE TO QUESTION 5 SINCE THEY WERE NOT UTILIZED IN THE COURSE OF THE REVIEW OF THE SSPSA UPDATE.

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QUESTION 1 (B).

FOR HOW MANY PLANTS HAVE PSAs BEEN COMPLETED?
PLEASE PROVIDE A LIST OF THE PLANTS AND THE
DATES OF COMPLETION OF THE RELEVANT PSA.

ANSWER.

10 INDUSTRY SPONSORED PSAs SUBMITTED TO NRC

<u>PLANT</u>	<u>PUBLICATION DATE</u>
BIG ROCK POINT	1981
ZION 1 & 2	1981
INDIAN POINT 2 & 3	1982
YANKEE POWE	1982
SHOREHAM	1983
LIMERICK 1 & 2	1983
MILLSTONE 3	1983
SEABROOK	1983
MIDLAND	1984
OCONEE 3	1984

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11. NPC SPONSORED PSAs

<u>PLANT</u>	<u>PUBLICATION DATE</u>	<u>PROGRAM</u>
SURRY 1	1975	RSS (WASH-1400)*
PEACH BOTTOM 2	1975	RSS (WASH-1400)
OCONEE 3	1981	RSSMAP**
SEQUOYAH 1	1981	RSSMAP
GRAND GULF 1	1981	RSSMAP
CALVERT CLIFFS 2	1982	RSSMAP
CRYSTAL RIVER 3	1981	IREP***
BROWNS FERRY 1	1982	IREP
ARKANSAS 1	1982	IREP
MILLSTONE 1	1983	IREP
CALVERT CLIFFS 1	1984	IREP

*REACTOR SAFETY STUDY

**REACTOR SAFETY STUDY METHODOLOGY APPLICATION PROGRAM

***INTERIM RELIABILITY EVALUATION PROGRAM

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PSAs, OF WHICH WE ARE AWARE, THAT ARE COMPLETED OR UNDERWAY BUT
HAVE NOT BEEN SUBMITTED TO NRC:

PLANTS

SUSQUEHANNA

OYSTER CREEK

BROWNS FERRY 1 (INDUSTRY SPONSORED)

DIABLO CANYON

THREE MILE ISLAND

SEQUOYAH (INDUSTRY SPONSORED)

QUESTION 1 (c).

FOR HOW MANY PLANTS HAVE REVISIONS OR UPDATES TO PSAs BEEN CONDUCTED? PLEASE PROVIDE A LIST OF THE PLANTS AND THE DATES OF THE COMPLETION OF THE RELATED REVISION OR UPDATE.

ANSWER.

OTHER THAN THE SUBJECT "SSPSA UPDATE," THERE HAVE BEEN NO INSTANCES WHERE A REVISION OR UPDATE TO A PSA HAS BEEN SUBMITTED TO NPC AFTER THE REVIEW WAS TERMINATED. HOWEVER, IT IS COMMON THAT REVISIONS ARE MADE DURING THE PERFORMANCE OF THE PSA ITSELF AND DURING THE REVIEW PROCESS OR THAT THE PSA IS CONDUCTED AND SUBMITTED IN PHASES. FOR EXAMPLE, THE LIMERICK PSA WAS PERFORMED IN PHASES, INTERNAL EVENTS AND EXTERNAL EVENTS BEING TWO MAJOR PORTIONS, AND SUBMITTED TO NPC BETWEEN MARCH 1981 AND NOVEMBER 1983. THE REVIEW EXTENDED OVER THIS TIME PERIOD AND WAS COMPLETED IN 1984.

IN THE CASE OF MILLSTONE 3, AS ANOTHER SAMPLE, A REVISION OF THEIR SEISMIC ANALYSIS WAS PERFORMED DURING THE COURSE OF THE OVERALL PSA REVIEW AND WAS REVIEWED AS PART OF THE COMPLETE PSA.

IN SUMMARY RESPONSE, THERE HAVE BEEN NO CASES OTHER THAN SEABROOK WHERE A PSA WAS SUBMITTED AND REVIEWED WITH A SUBSEQUENT SUBMITTAL RESULTING IN THE INITIATION OF A SECOND, SEPARATE REVIEW PROCESS.

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QUESTION 1 (D).

IF THE ANSWER TO 1(C) IS GREATER THAN ZERO,
FOR HOW MANY OF THOSE REVISED STUDIES DID NPC
PARTICIPATE IN CRITICAL REVIEWS OF THE WORK
PRODUCTS WITH THE LICENSEE AND/OR ITS
CONTRACTOR(S)?

FOR EACH SUCH PLANT STUDY, PLEASE SUPPLY THE
NUMBER OF PERSON-YEARS OF NRC STAFF TIME
EXPENDED IN THE REVIEW, THE COST OF THE REVIEW,
AND THE TIME SPAN OVER WHICH THE REVIEW
OCCURRED.

ANSWER.

NO RESPONSE IS APPLICABLE SINCE THE ANSWER TO QUESTION 1(C) IS
ZERO.

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QUESTION 2.

WHEN DID NPC STAFF AND PUBLIC SERVICE OF NEW HAMPSHIRE FIRST COMMUNICATE REGARDING THE CONCEPT OR SUBSTANCE OF A PSA UPDATE FOR THE SEABROOK NUCLEAR POWER PLANT, INCLUDING BUT NOT LIMITED TO REANALYSIS OF THE PSA, REANALYSIS OF THE STRENGTH OF THE CONTAINMENT, REDUCING THE SIZE OF THE EPZ, AND ASSESSING ALTERNATIVES IN THE EVENT THAT THE COMMONWEALTH OF MASSACHUSETTS DETERMINED IT WOULD NOT PARTICIPATE IN EMERGENCY PLANNING? PLEASE PROVIDE A CHRONOLOGY OF SUCH COMMUNICATIONS (INCLUDING BUT NOT LIMITED TO MEETINGS AND TELEPHONE CALLS), A LIST OF THE PARTICIPANTS IN EACH, THE PURPOSE, SUBJECT, AND SUBSTANCE OF THE COMMUNICATIONS, AND THE CIRCUMSTANCES AS TO WHY THE DISCUSSION TOOK PLACE. PLEASE PROVIDE ALL RECORDS PERTAINING TO SUCH COMMUNICATIONS, MEETINGS OR DISCUSSIONS.

ANSWER.

IN OUR SEPTEMBER 29, 1986 RESPONSE TO QUESTION 8.D) OF YOUR SEPTEMBER 15, 1986 LETTER CONCERNING EMERGENCY PLANNING ISSUES AT SEABROOK NUCLEAR POWER STATION, IT WAS NOTED THAT THERE HAVE BEEN SOME DISCUSSIONS OF RISK AND EMERGENCY PREPAREDNESS BETWEEN MANAGEMENT OF PSNH AND ROBERT BERNERO, DIRECTOR OF BWR LICENSING

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QUESTION 2. (CONTINUED)

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AT NRC. THESE DISCUSSIONS WERE PROBABLY WHEN THE NRC STAFF FIRST COMMUNICATED REGARDING THE CONCEPT OR SUBSTANCE OF A PSA UPDATE. THE CHRONOLOGY ON SUCH COMMUNICATIONS WOULD BE THE SAME AS THE ONE PROVIDED IN THE NRC'S RESPONSE TO THE SUBCOMMITTEE DATED SEPTEMBER 10, 1986.

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QUESTION 3.

IN RESPONSE TO THE SUBCOMMITTEE'S LETTER OF AUGUST 28, 1986, THE NRC HAS PROVIDED A LIST OF MEETINGS BETWEEN NRC STAFF AND PUBLIC SERVICE OF NEW HAMPSHIRE AND/OR ITS CONTRACTORS AND/OR NRC CONTRACTORS REGARDING EMERGENCY PLANNING AT SEABROOK. WERE THE PARTIES TO THE SEABROOK PROCEEDINGS AND/OR THE PUBLIC NOTIFIED OF SUCH MEETINGS? IF SO, FOR EACH MEETING LISTED, PLEASE INFORM THE SUBCOMMITTEE REGARDING (A) THE FORM OF NOTICE GIVEN, (B) THE DATE THAT NOTICE WAS GIVEN, I.E., THE DATE NOTICE WAS MAILED OR POSTED OR TELEPHONED, AND (C) PRECISELY WHO WAS NOTIFIED, E.G., THE PARTIES ONLY, OR THE PARTIES AND THE PUBLIC. IF THE TIMING AND FORM OF THE NOTICE WERE DIFFERENT FOR THE PUBLIC AND THE PARTIES, PLEASE SPECIFY THE TIMING AND FORM FOR EACH, FOR EACH MEETING.

PLEASE PROVIDE TO THE COMMITTEE THE INSTRUCTIONS GIVEN TO NRC STAFF REGARDING NOTICING SUCH MEETINGS, I.E., ENUMERATION OF THEIR RESPONSIBILITIES, REQUIRED FORM(S) OF NOTICE, WHOM SHOULD BE NOTICED, ETC.

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QUESTION 3. (CONTINUED)

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ANSWER.

FOR THOSE MEETINGS LISTED IN ENCLOSURE 1 TO THE SEPTEMBER 10, 1986 NRC LETTER TO THE SUBCOMMITTEE HELD ON AUGUST 6, 1986 AND AUGUST 27, 1986, PARTIES TO THE SEABROOK PROCEEDINGS WERE NOTIFIED BY A MEETING NOTICE SENT TO THEM PRIOR TO THE MEETING. A COPY OF EACH NOTICE WITH A SERVICE LIST ATTACHED IS HEREWITH PROVIDED. ADDITIONALLY, FIVE PARTIES IN THE PROCEEDINGS WERE TELEPHONED TO CONFIRM THAT THEY WERE AWARE OF THE MEETING ARRANGEMENTS. AS INDICATED IN ENCLOSURE 1 TO OUR SEPTEMBER 10, 1986 LETTER, THESE PARTIES WERE:

- AHRENS (MAINE ATTORNEY GENERAL)
- CURRAN (NECN)
- BISBEE (NEW HAMPSHIRE ATTORNEY GENERAL)
- DOUGHTY (SAPL)
- SNEIDER (MASSACHUSETTS ATTORNEY GENERAL)

THEY WERE TELEPHONED ON JULY 30, 1986, AUGUST 4, 1986 AND AUGUST 25, 1986 AS SHOWN IN ENCLOSURE 1.

MEMBERS OF THE PUBLIC WHO CALLED THE NRC AT VARIOUS TIMES WERE GIVEN INFORMATION ABOUT THE MEETING ARRANGEMENTS.

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INSTRUCTIONS REGARDING NOTICING OF FORMAL MEETINGS ARE CONTAINED IN THE PROJECT MANAGER'S HANDBOOK (PMH). THIS HANDBOOK PROVIDES A DESCRIPTION OF THE RESPONSIBILITIES OF THE NRC LICENSING PROJECT MANAGER IN MANAGING THE TECHNICAL REVIEW. WITHIN THE PMH ARE PROCEDURES FOR HOLDING TECHNICAL MEETINGS WITH UTILITIES. THE PMH STATES:

THE LPM CONTACTS THE APPLICANT TO AGREE ON THE TIME AND PLACE FOR THE MEETING AND THE SUBJECTS TO BE DISCUSSED. AT ALL MEETINGS BETWEEN THE STAFF AND THE APPLICANT, A MEETING NOTICE IS ISSUED APPROXIMATELY 2 WEEKS BEFORE THE MEETING (IF POSSIBLE), AND THE MEETING IS OPEN TO THE PUBLIC TO OBSERVE, BUT NOT PARTICIPATE. THE MEETING NOTICE IS SENT TO THE SERVICE LIST.

ADDITIONALLY, IN A LETTER FROM VICTOR NERSES (NRC) TO PHILIPS AHRENS, ESQ. DATED MAY 8, 1985 (COPY ENCLOSED), IT WAS STATED THAT WHEN A MEETING IS SCHEDULED LESS THAN A CALENDAR WEEK AWAY FROM THE DATE ON THE MEETING NOTICE, THE NECESSARY ACTIONS WILL BE TAKEN TO ADVISE THE OFFICE OF THE STATE OF MAINE ATTORNEY GENERAL AS WELL AS OTHER PARTIES TO THE SEABROOK PROCEEDINGS OF THE SCHEDULED MEETING.

ENCLOSURES:

- 1: MEETING NOTICE DTD 7/29/86
- 2: LTR TO P. AHRENS DTD 5/8/85

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QUESTION 4.

REGAPDING THE AUGUST 11, 1986 MEMORANDUM FROM SPEIS TO NOVAK (ATTACHED). PLEASE PROVIDE ANSWERS TO THE QUESTIONS POSED IN THE MEMORANDUM. HAVE ANY NRC STAFF PROVIDED ANSWERS VERRALLY OR IN WRITING? IF SO, PLEASE PPOVIDE COPIES OF ALL RECORDS TO THE SUBCOMMITTEE AND PREPARE AND FORWARD SUMMARIES OF ANY VERBAL REPORTS OR MEETINGS.

- (A) WHAT WOULD BE THE PROCEDURE IF AN APPLICANT WANTED TO SEEK A REDUCTION IN THE SIZE OF THE EPZ? COULD THE APPLICANT SEEK A LICENSE AMENDMENT OR AN EXEMPTION FROM THE EMERGENCY PLANNING REGULATIONS, FILE A PETITION FOR RULEMAKING, OR PURSUE ANOTHER ROUTE? WHAT ARE THE NRC'S LEGAL AND TECHNICAL REQUIREMENTS FOR EACH? PLEASE IDENTIFY ALL POSSIBLE ROUTES AND EXPLAIN IN DETAIL WHAT WOULD BE INVOLVED IN PURSUING EACH.

ANSWER

IF AN APPLICANT WANTED TO SEEK A REDUCTION IN THE SIZE OF ITS EPZ, THE COMMISSION PRESUMES THAT IT WOULD FILE AN APPLICATION FOR EXEMPTION UNDER § 50.12 OR A REQUEST FOR WAIVER UNDER § 2.758.

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A PETITION FOR WAIVER OR EXCEPTION UNDER 10 C.F.R. § 2.758(B) IS REQUIRED TO DEMONSTRATE THAT "SPECIAL CIRCUMSTANCES WITH RESPECT TO THE SUBJECT MATTER OF THE PARTICULAR PROCEEDING ARE SUCH THAT APPLICATION OF THE RULE OR REGULATION (OR PROVISION THEREOF) WOULD NOT SERVE THE PURPOSES FOR WHICH THE RULE OR REGULATION WAS ADOPTED.

APPLICATIONS FOR AN EXEMPTION UNDER 10 C.F.R. § 50.12 MAY BE GRANTED BY THE COMMISSION, UPON FINDING THAT THE EXEMPTIONS ARE "AUTHORIZED BY LAW, WILL NOT PRESENT AN UNDUE RISK TO THE PUBLIC HEALTH AND SAFETY, AND ARE CONSISTENT WITH THE COMMON DEFENSE AND SECURITY." THE COMMISSION WILL NOT CONSIDER GRANTING AN EXEMPTION UNLESS "SPECIAL CIRCUMSTANCES" ARE PRESENT; SUCH SPECIAL CIRCUMSTANCES ARE FURTHER DEFINED (AND THE TESTS FOR ESTABLISHING SPECIAL CIRCUMSTANCES ARE SET FORTH) IN 10 C.F.R. § 50.12(A)(?).

IN ADDITION, AN APPLICANT COULD ALWAYS FILE A PETITION FOR RULEMAKING UNDER 10 C.F.R. § 2.800 ET SEQ., SHOULD IT SEEK A GENERIC REVISION OF THE COMMISSION'S EMERGENCY PLANNING REGULATIONS.

THE COMMISSION HAS DISCRETIONARY AUTHORITY TO GRANT A REQUEST FOR WAIVER UNDER 10 C.F.R. § 2.758, EITHER WITH OR WITHOUT A HEARING. A PETITION FOR WAIVER IS REQUIRED TO BE ACCOMPANIED BY AN AFFIDAVIT WHICH MUST, INTER ALIA, "SET FORTH WITH PARTICULARITY THE SPECIAL

CIRCUMSTANCES ALLEGED TO JUSTIFY THE WAIVER OR EXCEPTION REQUESTED." OTHER PARTIES MAY FILE WRITTEN RESPONSES TO THE PETITION. IF THE LICENSING BOARD FINDS THAT A PRIMA FACIE SHOWING FOR A WAIVER HAS BEEN MADE, THE BOARD THEN CERTIFIES THE MATTER TO THE COMMISSION FOR A FINAL DETERMINATION AS TO WHETHER THE RULE SHOULD BE WAIVED IN THE PARTICULAR PROCEEDING. UNDER § 2.758(D), THE COMMISSION COULD ORDER THAT FURTHER FILINGS BE MADE OR RULE ON THE BASIS OF THE FILINGS MADE BEFORE THE LICENSING BOARD, OR IT COULD "DIRECT SUCH FURTHER PROCEEDINGS AS IT DEEMS APPROPRIATE TO AID ITS DETERMINATION." THUS, IF THE COMMISSION DETERMINED THAT AN EVIDENTIARY HEARING ON THE REQUEST FOR WAIVER IS APPROPRIATE, IT WOULD HAVE THE DISCRETION TO DETERMINE THE NATURE AND SCOPE OF THE HEARING.

THE COMMISSION IS NOT IN A POSITION AT PRESENT TO STATE WHETHER A HEARING WOULD BE NECESSARY ON A SEABROOK APPLICATION FOR EXEMPTION FROM THE EPZ REQUIREMENTS, UNDER 10 C.F.R. § 50.12. THERE IS NO GENERIC REQUIREMENT UNDER EITHER SECTION 189A OF THE ATOMIC ENERGY ACT OR THE COMMISSION'S REGULATIONS, WHICH WOULD MANDATE THAT A HEARING BE HELD ON A REQUEST FOR EXEMPTION FROM THESE REQUIREMENTS. THE COMMISSION, IN ITS DISCRETION, COULD DETERMINE TO HOLD A HEARING ON AN EXEMPTION REQUEST IN A PARTICULAR INSTANCE. IN THAT EVENT, THE COMMISSION'S DETERMINATION AS TO WHETHER A HEARING SHOULD BE HELD

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WOULD DEPEND, IN PART, ON WHETHER HEARINGS WERE THEN IN PROGRESS ON THE LICENSE APPLICATION, AND THE NATURE OF THE ISSUES RAISED IN THAT PROCEEDING. PRESUMABLY, IF THE SEABROOK APPLICANTS FILE A REQUEST FOR EXEMPTION UNDER § 50.12, THE COMMISSION WILL BE IN A BETTER POSITION AT THAT TIME TO CONSIDER THE VIEWS OF THE PARTICIPANTS IN THE SEABROOK PROCEEDING AS TO WHETHER A HEARING SHOULD BE REQUIRED ON THE EXEMPTION REQUEST. IN SO DOING, THE COMMISSION COULD ALSO CONSIDER THE VIEWS OF STATE AND LOCAL AUTHORITIES PARTICIPATING IN THE PROCEEDING AS A PARTY UNDER 10 C.F.R. § 2.714 AS AN INTERESTED STATE UNDER 10 C.F.R. § 2.715(c).

A REQUEST FOR RULEMAKING WOULD BE GOVERNED BY THE PROCEDURES SET FORTH IN 10 C.F.R. § 2.800 ET SEQ. UNDER 10 C.F.R. § 2.802, "ANY INTERESTED PERSON MAY PETITION THE COMMISSION TO ISSUE, AMEND OR RESCIND ANY REGULATION"; THE REQUIRED CONTENTS OF SUCH A PETITION ARE SET FORTH IN § 2.802(c). 10 C.F.R. § 2.803 PROVIDES THAT "[N]O HEARING WILL BE HELD ON THE PETITION UNLESS THE COMMISSION DEEMS IT ADVISABLE." IF THE COMMISSION DETERMINES THAT SUFFICIENT REASON EXISTS, IT WILL PUBLISH A NOTICE OF PROPOSED RULE MAKING; OTHERWISE IT MAY SIMPLY DENY THE PETITION. WHERE THE COMMISSION PROPOSES TO ADOPT, AMEND OR REPEAL A REGULATION, IT GENERALLY WILL PUBLISH A NOTICE OF PROPOSED RULE MAKING IN THE FEDERAL REGISTER CONTAINING SUCH INFORMATION AS IS REQUIRED UNDER 10 C.F.R. § 2.804, INCLUDING

QUESTION 4 (A). (CONTINUED)

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INFORMATION AS TO THE MANNER AND TIME IN WHICH INTERESTED MEMBERS OF THE PUBLIC MAY COMMENT. FURTHER PROVISIONS GOVERNING THE PARTICIPATION IN A RULE MAKING PROCEEDING BY INTERESTED PERSONS AND MEMBERS OF THE PUBLIC ARE SET FORTH IN §§ 2.804 AND 2.805.

QUESTION 4 (B)

IF A LICENSEE SOUGHT AN EXEMPTION, WOULD THE REQUIREMENTS OF 10 CFR SEC. 50.12(A) APPLY TO THE REQUEST? IF SO, WHAT TESTS WOULD AN EXEMPTION REQUEST HAVE TO MEET?

ANSWER.

IF AN EXEMPTION UNDER § 50.12 IS SOUGHT BY A LICENSEE, THE REQUIREMENTS OF § 50.12(A), AS SET FORTH ABOVE, WOULD APPLY.

QUESTION 4 (C).

WHAT WOULD BE THE REQUIREMENTS FOR A PUBLIC HEARING, AND/OR PUBLIC COMMENT, AND/OR PARTICIPATION BY STATE AND/OR LOCAL AUTHORITIES IN EACH OF THE POSSIBLE ROUTES FOR REQUESTING A CHANGE IN THE SIZE OF THE EPZ?

ANSWER.

THE REQUIREMENTS FOR A PUBLIC HEARING ON AN EXEMPTION REQUEST, WAIVER REQUEST, OR REQUEST FOR RULEMAKING ARE SET FORTH IN RESPONSE TO QUESTION 4(A) ABOVE.

QUESTION 5.

THE SUBCOMMITTEE IS AWARE THAT IN JUNE, 1984, THE NRC CONTRACTED WITH LAWRENCE LIVERMOPE NATIONAL LABORATORIES TO PERFORM A REVIEW OF THE SEABROOK STATION PSA. ON APRIL 4, 1985, THE NRC ISSUED THE DRAFT LLNL REPORT AS WELL AS AN NRC DRAFT STAFF SUMMARY REPORT. PLEASE PROVIDE COPIES OF THESE DOCUMENTS AND ALL SUBSEQUENT CORRESPONDENCE ON THE MATTER OF THE LLNL REVIEW.

ANSWER.

ENCLOSED ARE THE REQUESTED DOCUMENTS (DRAFT LLNL REPORT, STAFF SUMMARY) AND THE SUBSEQUENT RESPONSE FROM PSNH:

"RESPONSE TO REVIEW OF SEABROOK STATION PROBABILISTIC SAFETY ASSESSMENT," MARCH, 1986.

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QUESTION 6. IN THE OCTOBER 2, 1986 RESPONSE TO SUBCOMMITTEE QUESTION 13, NRC PROVIDED AN UNDATED "NOTE ON ISSUES TO BE RESOLVED BEFORE THE ISSUANCE OF A LOW POWER LICENSE." PLEASE IDENTIFY THE ORIGIN OF THIS NOTE AND ALL ORAL OR WRITTEN COMMUNICATIONS RELATED TO THE NOTE. PROVIDE ALL DOCUMENTS AND RECORDS RELATED TO THIS NOTE.

ANSWER.

THE "NOTE ON ISSUES TO BE RESOLVED BEFORE THE ISSUANCE OF A LOW POWER LICENSE," REFERRED TO IN THIS QUESTION, WAS PREPARED BY EDWARD S. CHRISTENBURY, ESQ., ASSISTANT GENERAL COUNSEL FOR HEARINGS, OGC, SOME TIME IN THE LATTER PART OF JULY 1986. TO THE BEST OF HIS RECOLLECTION, MR. CHRISTENBURY PREPARED THIS NOTE FOR HIS PERSONAL USE, IN PREPARATION FOR A MEETING BETWEEN SENIOR STAFF MANAGEMENT AND NEW HAMPSHIRE GOVERNOR SUNUNU HELD ON JULY 30, 1986. MR. CHRISTENBURY ORALLY DISCUSSED MANY OF THE ITEMS ON THIS LIST AT THAT MEETING; TO THE BEST OF HIS KNOWLEDGE, NO RECORD WAS MADE OF THIS MEETING.

WHILE THE SUBCOMMITTEE'S QUESTION 6 REFERS TO A "NOTE ON ISSUES TO BE RESOLVED BEFORE THE ISSUANCE OF A LOW POWER LICENSE," A DIFFERENT NOTE IS ATTACHED TO THE SUBCOMMITTEE'S LETTER OF NOVEMBER 3, 1986. THIS LATTER NOTE IS ENTITLED "QUESTIONS" AND BEARS A HANDWRITTEN

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QUESTION 6. (CONTINUED)

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NOTATION READING "QUESTION 6". THIS NOTE, ALSO, WAS PREPARED BY MR. CHRISTENBURY, FOLLOWING THE MEETING OF JULY 30, 1986, REFERRED TO ABOVE. DRAFT ANSWERS TO THE QUESTIONS LISTED ON THIS NOTE WERE PREPARED BY ROBERT PERLIS, A SEABROOK CASE ATTORNEY (OGC-BETHESDA), AND WERE UTILIZED BY MR. CHRISTENBURY IN A SUBSEQUENT MEETING WITH MR. STELLO HELD ON AUGUST 6, 1986. A COPY OF THESE ANSWERS IS ENCLOSED HERewith.

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QUESTION 7.

ON AUGUST 6, 1986, JOE SCINTO WROTE A NOTE TO "ED REIS AND THE SEABROOK CASE LAWYERS" CONCERNING, IN PART, THE SUPPORTABILITY OF A 2 MILE EMERGENCY PLANNING ZONE AS A MATTER OF LAW (ATTACHED). TO WHICH MEETING OR DISCUSSION IS MR. SCINTO REFERRING WHEN HE SAYS "AS I LISTENED TO OUR FRIENDS TODAY"? WHO PARTICIPATED IN THE MEETING AND WHO INITIATED IT? PLEASE PROVIDE ALL WRITTEN OR ORAL RESPONSES TO THIS NOTE. IF THE NRC'S SEABROOK CASE LAWYERS HAVE PARTICIPATED IN MEETINGS TO DISCUSS THIS ISSUE, PROVIDE A CHRONOLOGY OF ALL SUCH MEETINGS AND PROVIDE ALL RECORDS FOR ALL SUCH MEETINGS.

ANSWER.

THE AUGUST 6, 1986 NOTE FROM JOE SCINTO TO "ED REIS AND THE SEABROOK CASE LAWYERS" REFERS TO A MEETING HELD BETWEEN THE NRC STAFF AND THE SEABROOK APPLICANTS ON AUGUST 6, 1986 AT THE NRC OFFICES IN BETHESDA, MD. A SUMMARY OF THIS MEETING, DATED SEPTEMBER 8, 1986 ("SUMMARY OF MEETING WITH PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE TO DISCUSS SEABROOK RISK MANAGEMENT AND EMERGENCY PLANNING STUDY"), IS ENCLOSED HEREWITH. A LIST OF THE ATTENDEES AT THIS MEETING IS PROVIDED IN ENCLOSURE J TO THE MEETING SUMMARY ("ATTENDANCE/ SEABROOK PSA MEETING/ 8/6/86").

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QUESTION 8. IN YOUR RESPONSE TO MY REQUEST OF AUGUST 28, 1986, THE LAST ITEM INCLUDED WAS A "SEABROOK EPZ SENSITIVITY STUDY REVIEW PLAN" DATED 8/28/86 (COPY ATTACHED). WHO PREPARED THIS DOCUMENT AND FOR WHAT PURPOSE? IS THIS THE AGENDA FOR THE MEETING ON 9/2/86?

ANSWER.

THE DOCUMENT TITLED "SEABROOK EPZ SENSITIVITY STUDY REVIEW PLAN," DATED 8/28/86, WAS PREPARED BY S. M. LONG AS A BEGINNING POINT FOR THE PLANNING DISCUSSIONS HELD IN THE TECHNICAL REVIEW GROUP MEETING ON 9/2/86. IT IS NOT PRECISELY THE AGENDA, BUT WAS DISTRIBUTED AHEAD OF TIME TO HELP FOCUS THE DISCUSSIONS.

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QUESTION 9. ACCORDING TO THE NOTES OF ONE OF THE PARTICIPANTS IN AN OCTOBER 27, 1985 MEETING BETWEEN FEMA, THE APPLICANT, AND NEW HAMPSHIRE AND MASSACHUSETTS STATE OFFICIALS, BROOKHAVEN WAS AT THAT TIME REVIEWING THE CONTAINMENT AND "TIME-TO-FAILURE" ASPECTS OF THE SEABROOK PRA. PLEASE EXPLAIN IN DETAIL THE REVIEW TO WHICH THIS STATEMENT PERTAINS -- WHO AT BROOKHAVEN WAS ASKED TO CONDUCT THE REVIEW AND BY WHOM, WHAT DOCUMENTS WERE UNDER CONSIDERATION IN THE REVIEW, WHY THE REVIEW WAS UNDERTAKEN, AND THE OBJECTIVES AND/OR WORK PRODUCTS SOUGHT. PROVIDE ALL DOCUMENTS RELATED TO THIS BROOKHAVEN REVIEW.

ANSWER.

THE REFERENCED REVIEW WAS INITIATED BY THE STAFF IN RESPONSE TO THE APPLICANT'S VOLUNTARY SUBMITTAL OF A PROBABILISTIC RISK ASSESSMENT (PRA) FOR SEABROOK STATION (REFERENCES 1 AND 2). TWO REVIEWS WERE CONDUCTED; ONE AT BROOKHAVEN NATIONAL LABORATORY (BNL), AND ONE AT LAWRENCE LIVERMORE LABORATORY (LLL). RESPONSIBILITY FOR THE "FRONT END" [NUCLEAR STEAM SUPPLY SYSTEM (NSSS) RESPONSE AND ACCIDENT INITIATORS] WAS ASSIGNED TO LLL, AND "BACK END" [CONTAINMENT RESPONSE, RELEASES, RISK] WAS ASSIGNED TO BNL. SARAH DAVIS WAS ASSIGNED AS THE NRC PROJECT MANAGER (PM) FOR THE

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QUESTION 9. (CONTINUED)

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LLL REVIEW, AND WAPREN LYON WAS ASSIGNED FOR THE BNL REVIEW. SINCE THE REQUEST IS SPECIFIC TO THE BNL REVIEW, THE REMAINDER OF THIS RESPONSE WILL BE CONFINED TO THAT SUBJECT.

THE REVIEW OBJECTIVE WAS "TO PROVIDE A LIMITED REVIEW OF THOSE ASPECTS OF THE SEABROOK PRA LEADING TO ESTIMATES OF RISK CORRESPONDING TO VARIOUS PLANT DAMAGE STATES TO DETERMINE THE ACCURACY OF THE ESTIMATES" (REFERENCE 3). THE REVIEW WAS INITIATED IN APPROXIMATELY JULY 1984, AND CONCLUDED BY SUBMITTAL OF A REPORT TO THE NPC IN MARCH 1986 (REFERENCE 4).

THE REVIEW AT BNL WAS CONDUCTED UNDER THE SUPERVISION OF W. T. PRATT, THE PRINCIPAL INVESTIGATOR WAS M. KHATIB-RAHBAR, AND TECHNICAL ASSISTANCE WAS PROVIDED BY A. K. AGRAWAL AND H. LUDEWIG, ALL BNL PERSONNEL.

COPIES OF ALL DOCUMENTS IN W. LYON'S FILES PERTINENT TO THE REVIEW ARE ATTACHED, WITH THE EXCEPTION OF REFERENCE 1 AND 2, WHICH ARE PUBLICLY AVAILABLE. COMPLETE INFORMATION PERTINENT TO THE TECHNICAL REVIEW IS CONTAINED IN REFERENCE 4. (NOTE THE INCLUDED FEBRUARY "PRE-PUBLICATION COPY" IS BELIEVED IDENTICAL TO REFERENCE 4. THE MARCH PUBLICATION IS NOT IN MR. LYON'S FILES.)

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REFERENCES

1. "SEABROOK STATION PROBABILISTIC SAFETY ASSESSMENT," PICKARD, LOWE AND GARRICK, INC., PLG-0300, DECEMBER 1983.
2. GARRICK, B. JOHN, KARL N. FLEMING, AND ALFRED TOPPI, "SEABROOK STATION PROBABILISTIC SAFETY ASSESSMENT, TECHNICAL SUMMARY REPORT," PICKARD, LOWE AND GARRICK, PLG-0365, JUNE 1984.
3. GRAHN, H. C., LETTER FROM BNL TRANSMITTING THE BNL PROPOSAL TITLED "REVIEW OF THE PRA FOR THE SEABROOK NUCLEAR POWER PLANT," FIN NUMBER A-3778, PROPOSAL DATED SEPTEMBER 21, 1984, LETTER ADDRESSED TO DAVID SCHWELLER, BNL AREA OFFICE, U.S. DEPT. OF ENERGY, SEPTEMBER 26, 1984.
4. KHATIB-RAHBAR, M., A. K. AGRAWAL, H. LUDEWIG, AND W. T. PRATT, "A REVIEW OF THE SEABROOK STATION PROBABILISTIC SAFETY ASSESSMENT: CONTAINMENT FAILURE MODES AND RADIOLOGICAL SOURCE TERMS," BROOKHAVEN NATIONAL LABORATORY, NUREG/CR-4540, BNL/NUREG-51961, MARCH 1986.

QUESTION 10. PLEASE EXPLAIN IN DETAIL THE ROLE OF THE OGC AND
ELD STAFF IN THE REVIEW OF THE SSPSA UPDATE.

ANSWER.

OGC AND OELD STAFF HAVE NO ROLE IN THE TECHNICAL REVIEW OF THE
SSPSA UPDATE. HOWEVER, THE OGC BETHESDA ATTORNEYS (FORMERLY OELD)
MAY BE ASKED TO PROVIDE LEGAL ADVICE TO NRC STAFF MEMBERS CONCERNING
ONE OR ANOTHER ASPECT OF THE SSPSA AND THE STAFF'S REVIEW THEREOF,
WHILE OGC ATTORNEYS MAY BE ASKED TO PROVIDE LEGAL ADVICE TO THE
COMMISSION CONCERNING THE SSPSA UPON REQUEST BY THE COMMISSION.

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QUESTION 11. IN ITS SEPTEMBER 29, 1986 RESPONSE TO SUBCOMMITTEE QUESTION 8, NPC INDICATED THAT ROBERT BERNERO, DIRECTOR OF BWR LICENSING, HAD DISCUSSED THE POSSIBILITY OF REDUCING SEABROOK'S EMERGENCY PLANNING ZONE WITH WILLIAM DERRICKSON AND OTHER PSNH PERSONNEL. THESE MEETINGS TOOK PLACE ON JULY 30, 1985 AND ONE "A FEW MONTHS LATER." PLEASE HAVE MR. BERNERO PREPARE DETAILED SUMMARIES OF THESE MEETINGS (AND ANY OTHERS ON THE SUBJECT THAT HE MAY RECALL), AS WELL AS ANY OTHER RELATED COMMUNICATIONS ON THIS MATTER, AND PROVIDE THESE SUMMARIES TO THE SUBCOMMITTEE.

ANSWER.

AS INDICATED IN OUR PREVIOUS RESPONSE TO YOU, MR. BERNERO DISCUSSED THE GENERAL SUBJECT OF RISK AND EMERGENCY PREPAREDNESS, NOT THE SPECIFIC POSSIBILITY OF REDUCING SEABROOK'S EMERGENCY PLANNING ZONE, WITH REPRESENTATIVES OF PSNH ON THE TWO OCCASIONS IN 1985 WHICH WERE PREVIOUSLY MENTIONED. MR. BERNERO HAS NO RECORDS OR NOTES OF THESE MEETINGS OTHER THAN HIS JULY 30 CALENDAR NOTE. HE RECALLS THAT THE MEETINGS WERE AT PSNH REQUEST AND WERE TO SEEK FURTHER DISCUSSION OF A SPEECH MR. BERNERO GAVE ON THIS SUBJECT ON MARCH 12, 1985, AT A TECHNICAL CONFERENCE IN CHARLESTON, SOUTH CAROLINA. A COPY OF THIS SPEECH IS ATTACHED FOR THE COMMITTEE'S

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QUESTION 11. (CONTINUED)

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USE. YOU MAY NOTE THAT THE ATTACHED PAPER, WHICH WAS THE BASIS FOR DISCUSSION, EMPHASIZES THE GENERIC POSSIBILITY OF USING NEW SOURCE TERM INFORMATION AS THE BASIS FOR REGULATORY CHANGE IN EMERGENCY PLANNING (P. 9FF).

ENCLOSURE:

PAPER, R. M. BERNERO,

DTD 3/12/85

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QUESTION 12. PLEASE INFORM THE SUBCOMMITTEE OF ALL COMMUNICATIONS REGARDING (A) REDUCING THE SIZE OF THE SEABROOK EPZ, AND/OR (B) EXPEDITING THE LICENSING OF SEABROOK, AND/OR (C) ALTERNATIVES IN THE EVENT THAT THE COMMONWEALTH OF MASSACHUSETTS DETERMINED IT COULD NOT PARTICIPATE IN THE EMERGENCY PLANNING PROCESS FOR SEABROOK, BETWEEN ANY NRC COMMISSIONER, MEMBER OF THE COMMISSIONERS' STAFF(S), AND/OR NRC STAFF, AND ANY EMPLOYEE OF:

- o THE WHITE HOUSE;
- o DEPARTMENT OF ENERGY; AND
- o FEMA.

ANSWER.

TO THE BEST OF OUR KNOWLEDGE MEMBERS OF THE NRC STAFF HAVE NOT COMMUNICATED WITH ANY EMPLOYEE OF THE WHITE HOUSE, OR DEPARTMENT OF ENERGY REGARDING (A) REDUCING THE SIZE OF THE SEABROOK EPZ, AND/OR (B) EXPEDITING THE LICENSING OF SEABROOK, AND/OR (C) ALTERNATIVES IN THE EVENT THAT THE COMMONWEALTH OF MASSACHUSETTS DETERMINED IT COULD NOT PARTICIPATE IN THE EMERGENCY PLANNING PROCESS FOR SEABROOK.

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MEMBERS OF THE NRC STAFF HAVE COMMUNICATED WITH FEMA REGARDING EXPEDITING THE SCHEDULE FOR FEMA'S REVIEW OF OFFSITE PREPAREDNESS FOR SEABROOK.

IN ADDITION TO THE MEETINGS IDENTIFIED IN PRIOR SUBMITTALS TO THE SUBCOMMITTEE DATED SEPTEMBER 10, SEPTEMBER 29, AND OCTOBER 2, 1986, IE PERSONNEL (D. MATTHEWS AND E. JORDAN) ATTENDED A MEETING WITH SEVERAL FEMA PERSONNEL ON MARCH 25, 1986 TO DISCUSS EXPEDITING THE SCHEDULE FOR FEMA'S REVIEW OF OFFSITE PREPAREDNESS FOR SEABROOK. THE STATUS OF FEMA'S REVIEW OF OFFSITE PLANS FOR SEABROOK IS ROUTINELY DISCUSSED AT FEMA/NRC STEERING COMMITTEE MEETINGS AS WELL AS IN INFORMAL DISCUSSIONS BETWEEN FEMA AND NRC STAFF. ALSO, THE FOLLOWING DOCUMENTS CONCERNING THE FEBRUARY 26, 1986 EXERCISE HAVE BEEN COMMUNICATED BETWEEN THE NRC AND FEMA.

01/29/86 MEMO FOR W. LAZARUS, NRC RI, FROM E. THOMAS, FEMA,
SUBJECT: SEABROOK SCENARIO AND PLAN REVIEWS.

02/14/86 LETTER FOR V. STELLO, NRC, FROM S. SPECK, FEMA,
REGARDING INFORMATION RELATED TO THE EXERCISE.

02/21/86 LETTER FOR S. SPECK, FEMA, FROM V. STELLO, NRC,
REGARDING THE CONDUCT OF THE EXERCISE.

04/29/86 MEMO FOR E. THOMAS, FEMA FROM W. LAZARUS, NRC RI,
CLARIFICATION OF REQUIREMENTS FOR INGESTION EXPOSURE
PATHWAY PARTICIPATION IN EMERGENCY EXERCISES.

Insert →

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SIMILARLY, MR. CHRISTENBURY HAS NOT HAD ANY CONTACT WITH THE WHITE HOUSE, DOE, OR FEMA CONCERNING THESE MATTERS. HOWEVER, MR. CHRISTENBURY AND THE SEABROOK CASE LAWYERS MAY HAVE HAD GENERAL DISCUSSIONS WITH FEMA REGARDING THE POSSIBILITY THAT THE SEABROOK APPLICANTS MIGHT SEEK AN EXEMPTION TO REDUCE THE SIZE OF THE SEABROOK EPZ. IN ADDITION, THE NAMED INDIVIDUALS HAVE HAD GENERAL DISCUSSIONS WITH FEMA ATTORNEYS, FROM TIME TO TIME, CONCERNING HEARING SCHEDULES IN THE SEABROOK PROCEEDING.

QUESTION 13. WHEN WERE THE "SEABROOK STATION RISK MANAGEMENT AND EMERGENCY PLANNING STUDY" AND THE "SEABROOK STATION EMERGENCY PLANNING SENSITIVITY STUDY" TRANSMITTED TO THE NRC PUBLIC DOCUMENT ROOMS, AND SPECIFICALLY TO THE LOCAL PUBLIC DOCUMENT ROOM IN EXETER, NEW HAMPSHIRE? PLEASE PROVIDE THE LETTER OF TRANSMITTAL.

ANSWER.

THE "SEABROOK STATION RISK MANAGEMENT AND EMERGENCY PLANNING STUDY" AND THE "SEABROOK STATION EMERGENCY PLANNING SENSITIVITY STUDY" WERE PLACED IN THE NRC PUBLIC DOCUMENT ROOM LOCATED IN WASHINGTON, D.C. ON AUGUST 5, 1986. THE DOCUMENTS WERE TRANSMITTED TO THE NRC BY PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE LETTER, DATED JULY 21, 1986, SUBJECT: SEABROOK STATION PROBABILISTIC SAFETY STUDY ASSESSMENT UPDATE (ACCESSION #8607240181). THESE DOCUMENTS WERE ALSO SENT TO THE LOCAL PUBLIC DOCUMENT ROOM IN EXETER, NEW HAMPSHIRE ON AUGUST 5, 1986. IN A TELEPHONE CALL WITH THE LIBRARIAN AT THE EXETER LIBRARY ON NOVEMBER 7, 1986, THE STAFF CONFIRMED THAT THESE DOCUMENTS WERE IN THE LOCAL PUBLIC DOCUMENT ROOM.

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QUESTION 14. ON OCTOBER 2, 1986, NRC PROVIDED THE SUBCOMMITTEE WITH A CHRONOLOGY OF LICENSING RELATED EVENTS. BEGINNING WITH THE JANUARY 7, 1985 LETTER, PLEASE PROVIDE A COPY OF EACH OF THE LETTERS IDENTIFIED IN THIS CHRONOLOGY.

ANSWER.

A COPY OF EACH OF THE LETTERS IDENTIFIED IN THE OCTOBER 2, 1986 CHRONOLOGY OF LICENSING RELATED EVENTS IS ENCLOSED.

ENCLOSURES:

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QUESTION 15. THE OCTOBER 2, 1985 CHRONOLOGY OF LICENSING RELATED EVENTS NOTES THAT "DURING THE PERIOD 1/2/86 TO 9/24/86 THERE WERE APPROXIMATELY 25 TELEPHONE CALLS BETWEEN D. PERROTTI AND UTILITY PERSONNEL, NRC PERSONNEL, AND NPC'S CONTRACTOR (PACIFIC NORTHWEST LABORATORIES) REGARDING THE REVIEW OF SEABROOK'S EMERGENCY PLAN." PLEASE DESCRIBE IN DETAIL THE ISSUES DISCUSSED IN EACH OF THESE CALLS.

ANSWER.

THE ISSUES DISCUSSED DURING THE PHONE CALLS ON 1/2/86 TO 9/24/86 PERTAINED TO EMERGENCY PLANNING ISSUES RELATED TO THE LICENSING OF SEABROOK UNIT 1, IN GENERAL. ITEMS THAT WERE DISCUSSED INCLUDED, FOR EXAMPLE, CURRENT STATUS OF SEABROOK EMERGENCY PREPAREDNESS PROGRAM, REQUEST FOR UPDATED VERSION OF EMERGENCY PLAN AND PROCEDURES, EMERGENCY CLASSIFICATION AND ACTION LEVEL SCHEME, DETAILS OF SEABROOK EXERCISE, FOLLOWUP ONSITE APPRAISALS, STATUS OF FEMA REVIEW OF OFFSITE PLANS, FSAR AMENDMENTS, AND HEARING BOARD ISSUES. A REVIEW OF THE PHONE CALLS SHOWED THAT THERE WERE NO DISCUSSIONS BETWEEN MR. PERROTTI AND OTHER PARTIES WITH REGARD TO THE SEABROOK STATION EMERGENCY PLANNING SENSITIVITY STUDY.

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QUESTION 16. ON OCTOBER 2, 1986, NRC PROVIDED THE SUBCOMMITTEE WITH A CHRONOLOGY OF INSPECTION RELATED EVENTS. PLEASE PROVIDE ALL DOCUMENTS AND RECORDS RELATED TO EACH STARRED (*) ITEM IN THE ATTACHED COPY OF THE CHRONOLOGY.

ANSWER.

ALL DOCUMENTS AND RECORDS RELATED TO EACH STARRED (*) ITEM IN THE OCTOBER 2, 1986 CHRONOLOGY OF INSPECTION RELATED EVENTS IS PROVIDED HERewith.

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QUESTION 17. IN RESPONSE TO THE SUBCOMMITTEE'S AUGUST 28, 1986 REQUEST FOR INFORMATION, NRC PROVIDED TWO MEETING CHRONOLOGIES AND TWO LISTS OF INTERNAL AND PUBLIC DOCUMENTS (ENCLOSURES 1 - 4). PLEASE PROVIDE UPDATES OF THESE CHRONOLOGIES FOR THE SUBCOMMITTEE WHICH INCLUDE ALL COMMUNICATIONS, INCLUDING BUT NOT LIMITED TO MEETINGS, TELEPHONE CALLS, AND RECORDS, SINCE THE LAST COMMUNICATIONS AND RECORDS ENUMERATED IN YOUR PREVIOUS ANSWER.

ANSWER.

ENCLOSED ARE UPDATES OF TWO MEETING CHRONOLOGIES AND TWO LISTS OF INTERNAL AND PUBLIC DOCUMENTS INCLUDED AS ENCLOSURES 1 - 4 TO THE STAFF'S SEPTEMBER 10, 1986 LETTER TO THE SUBCOMMITTEE. ALSO ENCLOSED ARE COPIES OF THE INFORMATION LISTED IN ENCLOSURES 3 AND 4.

ENCLOSURES:

AS STATED (4)

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ENCLOSURE 1

CHRONOLOGY OF MEETINGS AND DISCUSSIONS WITH
UTILITY AND OTHER GROUPS - SEABROOK

UPDATE

09/08-09/86 SITE VISIT BY NRC AND BNL PERSONNEL (SEE MEETING SUMMARY).

09/10/86 CONFERENCE CALL WITH NRC, BNL AND PSNH PERSONNEL TO DISCUSS POSSIBLE SITE SIMULATOR VISIT.

09/25/86 TELEPHONE CALL BETWEEN E. DOOLITTLE AND M. HAYES (HAVERHILL GAZETTE) TO DISCUSS ACRS MEETING.

09/26/86 JOINT MEETING OF THE ACRS SUBCOMMITTEES ON OCCUPATIONAL AND ENVIRONMENTAL PROTECTION SYSTEMS AND SEVERE (CLASS 9) ACCIDENTS.

10/10/86 SEABROOK ACRS FULL COMMITTEE MEETING.

10/15-17/86 SEABROOK SITE VISIT (S. LONG, G. BAGCHI, D. HICKMAN, W. LYON, R. YOUNGBLOOD, C. HOFMAYER, D. WESLEY, J. MOODY).

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ENCLOSURE 1

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10/29/86 TWO CONFERENCE CALLS WITH NRC AND PSNH
 - LONG, BAGCHI, LYON, MAIDRAND
 - LONG, LYON, MOODY

10/30/86 TELEPHONE CALL BETWEEN E. DOOLITTLE AND J. DOUGHTY
 TO DISCUSS UPCOMING MEETINGS ON NOV. 6, 12 AND 19.

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ENCLOSURE ?

CHRONOLOGY OF INTERNAL MEETINGS - SEABROOK

UPDATE

- 09/03/86 MEETING WITH LONG, MATTHEWS, PERROTTI, PERLIS, SOFFER
TO DISCUSS CRITERIA FOR COMPARISON WITH NUREG 0396.
- 09/04/86 MEETING WITH NOONAN, LONG, DOOLITTLE, BAGCHI TO DISCUSS
REVIEW STATUS.
- 09/11/86 MEETING WITH NOONAN, LONG, DOOLITTLE TO DISCUSS REVIEW
STATUS.
- 09/12/86 CONFERENCE CALL WITH NPC AND BNL.
- 09/16/86 MEETING WITH NOVAK, NOONAN, LONG, DOOLITTLE TO DISCUSS
UPCOMING ACRS MEETING.
- 09/22/86 MEETING WITH NOVAK, NOONAN, LONG AND OTHERS TO DISCUSS
REVIEW STATUS.
- 09/23/86 MEETING WITH NOONAN, DOOLITTLE, LONG TO DISCUSS REVIEW
STATUS.

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ENCLOSURE ?

- ? -

09/24/86 MEETING WITH NOONAN, DOOLITTLE, LONG TO DISCUSS REVIEW
SCOPE AND OBJECTIVES.

10/07/86 MEETING WITH ROSSI, BAGCHI, NOONAN, LONG TO DISCUSS
REVIEW STATUS.

10/08/86 MEETING WITH NOONAN, NERSES, DOOLITTLE, LONG TO DISCUSS
REVIEW STATUS.

10/22/86 MEETING WITH NOVAK, NOONAN, ROSSI, LONG, DOOLITTLE,
BAGCHI TO DISCUSS REVIEW STATUS.

10/23/86 CONFERENCE CALL WITH NRC AND BNL (LONG, LYON, BAGCHI,
PRATT).

10/30/86 MEETING WITH NRC AND BNL (NOVAK, NOONAN, LONG, BAGCHI,
ROSSI, PRATT, BARRY).

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ENCLOSURE 3

LIST OF PUBLIC DOCUMENTS - SEABROOK

- 09/26/86 TRANSCRIPT OF ACRS SUBCOMMITTEE MEETING.
- 09/29/86 LETTER FROM G. THOMAS TO V. NOONAN PROVIDING
ADDITIONAL INFORMATION.
- 10/08/86 LETTER FROM S. LONG TO R. HARPISON REQUESTING
ADDITIONAL INFORMATION.
- 10/10/86 TRANSCRIPT OF ACRS FULL COMMITTEE MEETING.
- 10/23/86 LETTER FROM S. LONG TO R. HARRISON REQUESTING
ADDITIONAL INFORMATION G. THOMAS TO V. NOONAN.
- 10/27/86 LETTER FROM V. STELLO TO J. SUNUNU REGARDING STATE
LIAISON OFFICER RICHARD STROME.
- 10/31/86 LETTER FROM J. DEVINCENTIS TO S. LONG PROVIDING
RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION.

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ENCLOSURE 4

LIST OF INTERNAL DOCUMENTS - SEABROOK

09/03/86 NOTES FROM MEETING WITH MATTHEWS, KANTOP, PERLIS, SOFFER,
PERROTTI, LONG CONCERNING CRITERIA FOR RISK COMPARISONS.

09/04/86 NOTES ON MEETING WITH NOONAN, DOOLITTLE, LONG, BAGCHI
- REVIEW STATUS.

09/09/86 NOTES ON SEABROOK SITE VISIT BY NRC/BNL.

09/11/86 NOTES ON MEETING WITH NOONAN, LONG, DOOLITTLE - REVIEW
STATUS.

09/15/86 MEMO FROM SPEIS TO NOVAK CONCERNING SCOPE OF BNL REVIEW.

09/16/86 NOTES ON MEETING WITH NOVAK, NOONAN, LONG, DOOLITTLE
- ACRS MEETING.

09/19/86 FACSIMILE TRANSMISSION FROM R. YOUNGBLOOD TO S. LONG -
PAGES FROM NSAC-84 (ZION NUCLEAR PLANT RESIDUAL HEAT
REMOVAL PRA).

09/22/86 MEMO FROM JORDAN TO NOVAK - CRITERIA TO EVALUATE SEA-
BROOK EPZ SENSITIVITY STUDY.

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ENCLOSURE II

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- 09/22/86 ROUTING SLIP FROM NOVAK TO PAGCHI, NOONAN, LONG COVERING
9/15/86 MEMO FROM SPEIS TO NOVAK.
- 09/23/86 NOTES ON MEETING WITH NOONAN, DOOLITTLE, LONG - REVIEW
STATUS.
- 09/23/86 NOTES FROM PUBLIC MEETING AMONG NRC, BNL AND PSNH TO
EXCHANGE TECHNICAL INFORMATION.
- 09/24/86 NOTES ON MEETING WITH NOONAN, DOOLITTLE, LONG - REVIEW
STATUS.
- 09/25/86 MEMO FROM SPEIS TO NOVAK - ADDITIONAL COMMENTS ON THE
BNL REVIEW OF SEABROOK EMERGENCY PLANNING STUDY.
- 09/25/86 NOTES ON CALL WITH DOOLITTLE AND HAYES.
- 09/26/86 NOTES ON SEABROOK ACRS SUBCOMMITTEE MEETING.
- 09/29/86 MEMO FROM HERNAN TO NRR DIVISION DIRECTORS - AIF PAPER
ON EPZ VS SOURCE TERM.

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ENCLOSURE 4

- 3 -

- 10/01/86 LETTER FROM R. E. WHITE TO BNL - SEABROOK PSA STUDY -
PIPING ISOMETRICS.
- 10/06/86 MEMO FROM LYON TO BERLINGER - REVIEW OF SEABROOK
DOCUMENTS PERTAINING TO CHANGE IN EMERGENCY PLANNING
ZONE SIZE.
- 10/07/86 SEISMIC FRAGILITY UPDATE.
- 10/08/86 NOTES ON MEETING WITH MOONAN, NERSES, DOOLITTLE, LONG -
REVIEW STATUS.
- 10/09/86 LETTER FROM FLEMING TO MAIDPAND - KEY FACTORS INFLUENCING
UPDATED ANALYSIS OF INTERFACING LOCA.
- 10/10/86 NOTES FROM ACPS FULL COMMITTEE MEETING.
- 10/15/86 PURPOSE AND AGENDA, TRIP TO SEABROOK STATION AND TO
BROOKHAVEN NATIONAL LABORATORY.
- 10/21/86 MEMO FROM BERLINGER TO NERSES - SEABROOK STATION RISK
EVALUATION PERTINENT TO EMERGENCY PLANNING.

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ENCLOSURE 4

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- 10/22/86 NOTES FROM BRIEFING FOR NOVAK ON REVIEW STATUS.
- 10/23/86 NOTES FROM TELECON BETWEEN NRC AND BNL CONCERNING
CONTAINMENT EVENT TREES.
- 10/22/86 AGENDA FOR BRIEFING ON REVIEW OF SEABROOK EPZ STUDY.
- 10/24/86 MEMO FROM LONG TO NOONAN - STATUS OF NRC REVIEW OF
SEABROOK EMERGENCY PLANNING SENSITIVITY STUDY.
- 10/29/86 NOTES ON CONFERENCE CALL WITH MAIDRAND, SANCHEZ, LYON,
BAGCHI, LONG.
- 10/30/86 NOTES ON TELEPHONE CALL WITH DOUGHTY AND DOOLITTLE.
- 11/03/86 DISTANCE OF INTAKE AND DISCHARGE STRUCTURES FROM MASS.
COAST.

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QUESTION 19. PLEASE PROVIDE ALL DOCUMENTS AND RECORDS PREPARED BY THE NRC STAFF WHICH PREVIOUSLY HAVE NOT BEEN PROVIDED TO THE SUBCOMMITTEE CONCERNING EMERGENCY PREPAREDNESS AND EVACUATION ISSUES AT CHERNOBYL AND THEIR IMPLICATIONS FOR EMERGENCY PLANNING AT U.S. NUCLEAR POWER PLANTS.

ANSWER.

DOCUMENTS AND RECORDS PREPARED BY THE NRC STAFF CONCERNING EMERGENCY PREPAREDNESS AND EVACUATION ISSUES AT CHERNOBYL AND THEIR IMPLICATIONS FOR EMERGENCY PLANNING AT U.S. NUCLEAR POWER PLANTS AND NOT PREVIOUSLY PROVIDED TO THE SUBCOMMITTEE ARE HERewith PROVIDED,

ENCLOSURES:

1. A PRELIMINARY DRAFT OF THE PERTINENT WRITEUP FOR THE NRC CHERNOBYL IMPLICATIONS ASSESSMENT REPORT ENTITLED "IV, EMERGENCY PLANNING," AS SUBMITTED TO THE ACRS ON OCTOBER 30, FOR REVIEW BY ITS SUBCOMMITTEE ON SAFETY PHILOSOPHY, TECHNOLOGY, AND CRITERIA.
2. TRANSMITTAL MEMORANDUM, T. SPEIS TO R. FRALEY, DATED OCTOBER 30, 1986, TRANSMITTING THE ABOVE ALONG WITH OTHER MATERIAL THAT IS NOT RELATED TO QUESTION 19 AND IS NOT HERE ENCLOSED.

PLEASE NOTE THAT THIS MATERIAL IS PRELIMINARY AND IS NOT INTENDED FOR PUBLIC RELEASE AT THIS TIME.

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QUESTION 19. (CONTINUED)

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3. 10/27/86 MEMO FROM SCHWARTZ TO SPEIS, "CHERNOBYL IMPLICATIONS ASSESSMENT REPORT."
4. 10/29/86 NOTE FROM SOFFER TO SCHWARTZ, "CHERNOBYL IMPLICATIONS ASSESSMENT REPORT: SECTION IV.1, ADEQUACY OF EPZ DISTANCES."
5. 11/3/86 COPIES OF 9 VIEWGRAPHS PREPARED FOR NRC SENIOR MANAGEMENT REVIEW GROUP MEETING ON 11/3/86.
6. 11/5/86 COPIES OF 3 VIEWGRAPHS PRESENTED TO ACRS ON 11/5/86 BY S. SCHWARTZ, IE.

ENCLOSURES:

AS STATED

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QUESTION 20.

IN A MEMORANDUM DATED JANUARY 26, 1986, MR. ROBERT MINOGUE, DIRECTOR OF THE OFFICE OF NUCLEAR REGULATORY RESEARCH WROTE TO HAROLD DENTON REGARDING THE PENDING BALTIMORE GAS & ELECTRIC COMPANY REQUEST FOR A REDUCTION IN THE SIZE OF THE EMERGENCY PLANNING ZONE FOR THE CALVERT CLIFFS NUCLEAR POWER PLANT. A COPY OF THE MEMORANDUM IS ATTACHED. MR. MINOGUE WROTE THAT "WE RECOMMEND THAT THE REQUESTED EXEMPTION BE EITHER DENIED AT THIS TIME OR THAT A DECISION BE POSTPONED UNTIL A GENERIC RULEMAKING ON THE SUBJECT IS COMPLETED IN FY 1987 OR FY 1988." PLEASE RESPOND TO THE POINTS RAISED BY MR. MINOGUE IN EACH OF THE BULLETED ITEMS. (SUBSTITUTE "PSNH" FOR "BG&E" AS APPROPRIATE.) WHAT IS THE CURRENT NRC POSITION REGARDING EACH OF THESE POINTS? FOR EXAMPLE, DOES STAFF CURRENTLY BELIEVE THAT "THE ORDERLY PROGRESSION OF GENERIC RULEMAKING ON THE EMERGENCY PLANNING ISSUE WILL SERVE THE PUBLIC BETTER THAN A PIECEMEAL, SITE-SPECIFIC APPROACH"?

ANSWER.

THE NRC RESPONSE TO THIS QUESTION WILL BE PROVIDED BY DECEMBER 1, 1986.

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QUESTION 21. PLEASE PROVIDE THE SUBCOMMITTEE WITH ALL RECORDS, INCLUDING BUT NOT LIMITED TO COPIES OF THE MINUTES, TRANSCRIPTS, NOTES, AND ALL OTHER DOCUMENTS, PERTAINING TO THE "LAST RES QUARTERLY REVIEW MEETING" REFERRED TO IN THE SECOND PARAGRAPH OF THE MINOGUE MEMORANDUM CITED ABOVE, AS WELL AS FOR ANY OTHER NRC STAFF MEETINGS ON THIS SUBJECT.

ANSWER.

ENCLOSED ARE THE FOLLOWING MEMORANDA PLUS THE AGENDA FOR THE DECEMBER 2, 1985 COMBINED THIRD AND FOURTH QUARTER PROGRAM REVIEW. THE ISSUE OF EMERGENCY PLANNING FOR CALVERT CLIFFS DOES NOT APPEAR ON THE PRINTED AGENDA. THIS ISSUE WAS APPARENTLY DISCUSSED IN CONNECTION WITH RULEMAKING SCHEDULE SLIPPAGE (ITEM 12 OF THE AGENDA).

ENCLOSURES:

1. MEMORANDUM G. MARCUS TO T. REHM "1985 COMBINED THIRD AND FOURTH QUARTER PROGRAM REVIEW: NOV. 12, 1985
2. MEMORANDUM T. REHM TO R. B. MINOGUE "RES 1985 COMBINED THIRD AND FOURTH QUARTER PROGRAM REVIEW" NOV. 21, 1985
3. RES 1985 COMBINED THIRD AND FOURTH QUARTER PROGRAM REVIEW AGENDA

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QUESTION 25. PLEASE EXPLAIN FOR THE SUBCOMMITTEE THE WAY IN WHICH THE FOLLOWING TOPICS AND/OR DOCUMENTS ARE RELATED IN ASSESSING THE SAFETY OF NUCLEAR POWER PLANTS IN GENERAL AND THE SAFETY OF ANY SPECIFIC PLANT:

- (A) SOUR TERM STUDIES
- (B) PROBABILISTIC RISK ASSESSMENTS
- (C) WASH-1400
- (D) NUREG-1150 AND NRC RISK REBASELINING WORK
- (E) NUREG-1050
- (F) PROBABILISTIC SAFETY ASSESSMENTS (PSA) FOR ANY GIVEN PLANT
- (G) ENVIRONMENTAL STATEMENT(S) WHICH INCLUDE ESTIMATES OF SEVEPE ACCIDENT CONSEQUENCES
- (H) SAFETY EVALUATION REPORTS
- (I) CRAC2/MACCS AND SIMILAR COMPUTER MODELS
- (J) SEVERE ACCIDENT RISK ASSESSMENTS
- (K) BASIC RESEARCH AND UNCEPTANTIES PEGARDING CORE PHENOMENA DURING ACCIDENT CONDITIONS

ANSWER.

THE NRC RESPONSE TO THIS QUESTION WILL BE PROVIDED BY DECEMBER 1, 1986.

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QUESTION 22. ON JUNE 18, 1986 MR. EDWARD CHRISTENBURY WROTE TO MR. SPENCE PEPPEY AT FEMA REGARDING A MEMORANDUM BY A MR. THOMAS DIGNAN ON THE SUBJECT OF EMERGENCY PLANNING, PARTICULARLY AS IT RELATED TO SEABROOK. IN HIS LETTER MR. CHRISTENBURY STATES THE FOLLOWING:

"THE DIGNAN MEMORANDUM IS INCORRECT, HOWEVER, IN ITS CONCLUSION THAT THE EMERGENCY PLANS ARE NOT REQUIRED TO BE DESIGNED TO COPE WITH AN EARLY RELEASE OF RADIOACTIVITY (DIGNAN MEMORANDUM AT 2-3). THIS ERROR APPEARS TO HAVE RESULTED BY CONFUSING THE "WORST POSSIBLE ACCIDENT" FOR ANY ACCIDENT INVOLVING AN EARLY RELEASE....THE STATEMENT OF CONSIDERATION, QUOTED ABOVE, CLEARLY RECOGNIZES THAT "EARLY RELEASES" MAY OCCUR....

THE FOLLOWING GUIDANCE IS PROVIDED IN NUREG-0654/FEMA-REP-1, REVISION 1 (AT 13-14):

"THE RANGE OF TIMES BETWEEN THE ONSET OF ACCIDENT CONDITIONS AND THE START OF A MAJOR RELEASE IS OF THE ORDER OF ONE-HALF TO SEVERAL HOURS. THE SUBSEQUENT TIME PERIOD OVER WHICH RADIOACTIVE MATERIAL MAY BE EXPECTED TO BE RELEASED IS OF

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THE ORDER OF ONE-HALF HOUR (SHORT TERM RELEASE) TO A FEW DAYS (CONTINUOUS RELEASE)....GUIDANCE ON THE TIME OF THE RELEASE...HAS BEEN USED IN DEVELOPING THE CRITERIA FOR NOTIFICATION CAPABILITIES...

EMERGENCY PLANNING FOR ACCIDENTS INVOLVING 'EARLY RELEASES' IS REQUIRED...."

IN DISCUSSIONS WITH NRC STAFF AND REVIEWING NRC AND PSNH MATERIAL AND THE TRANSCRIPTS OF ACRS MEETINGS ON THE SUBJECT, IT APPEARS THAT PSNH IS ARGUING THAT EARLY RELEASES CANNOT OCCUR GIVEN THE STRENGTH OF THE SEABROOK CONTAINMENT. HOWEVER, THE GUIDANCE REFERRED TO ABOVE APPLIES TO ALL PLANTS AND ALL LICENSEES. DOES THE NRC AGREE THAT EMERGENCY PLANNING FOR ACCIDENTS REQUIRING EARLY RELEASES IS REQUIRED AT SEABROOK? IF NOT, WHY NOT? PLEASE EXPLAIN IN DETAIL.

ANSWER.

NRC REGULATIONS REQUIRE THAT EMERGENCY PLANS MUST BE DESIGNED TO COPE WITH A SPECTRUM OF ACCIDENTS, INCLUDING THOSE INVOLVING EARLY

RELEASES. AS DISCUSSED IN THE JUNE 18, 1986 RESPONSE TO MR. DIGNAN, THE COMMISSION CLEARLY RECOGNIZED THAT EARLY RELEASES MAY OCCUR AND FOR THIS REASON ESTABLISHED PROMPT NOTIFICATION REQUIREMENTS IN THE REGULATIONS TO BE RESPONSIVE TO THE RANGE OF RELEASE TIMES DESCRIBED IN NUREG-0654/FEMA-REP-1. THE PROMPT NOTIFICATION REQUIREMENTS ARE INTENDED TO COVER NOT ONLY SEVERE ACCIDENTS BUT ALSO LESSER ACCIDENTS WITH FASTER MODERATE RELEASES. THE SEABROOK EMERGENCY PLANS, AS WELL AS THE PLANS FOR OTHER NUCLEAR POWER PLANTS, ARE REQUIRED TO INCLUDE THE POSSIBILITY OF EARLY RELEASES OF RADIOACTIVITY WITHIN THEIR PLANNING BASIS.

QUESTION 23. THERE ARE VARIOUS WAYS IN WHICH THE INTEGRITY OF THE CONTAINMENT MAY BE COMPROMISED AS A CONSEQUENCE OF HUMAN ERROR. PLEASE PROVIDE ANY MATERIAL REGARDING HOW THE CONTAINMENT AT SEABROOK MIGHT BE SO COMPROMISED, INCLUDING INFORMATION REGARDING THE SERIOUSNESS OF OFF-SITE CONSEQUENCES THAT COULD CONCEIVABLY RESULT IF THE CONTAINMENT ERROR OCCURRED IN CONJUNCTION WITH THE WORST POSSIBLE ACCIDENT CASE CONSIDERED POSSIBLE FOR THE SEABROOK PLANT (REGARDLESS OF PROBABILITY). PLEASE DESCRIBE 3 MOST SEVERE ACCIDENTS CONSIDERED POSSIBLE FOR THE PLANT AND THE ASSOCIATED MOST SEVERE CONSEQUENCES, AND ON WHAT THESE ACCIDENT SCENARIOS HAVE BEEN SELECTED AS THE MOST SEVERE.

ANSWER.

THE NRC STAFF IS CURRENTLY REVIEWING HOW INTEGRITY OF THE SEABROOK CONTAINMENT MIGHT BE COMPROMISED FROM A VARIETY OF CAUSES, INCLUDING HUMAN ERROR. HOWEVER, PRA ANALYSIS TECHNIQUES ARE NOT DESIGNED TO SPECIFICALLY PROVIDE "THE WORST POSSIBLE ACCIDENT CASE CONSIDERED POSSIBLE ... (REGARDLESS OF PROBABILITY)." RATHER, THEY ARE DESIGNED TO ESTIMATE THE TOTAL PUBLIC RISK BY IDENTIFYING THE SEQUENCES THAT HAVE A COMBINATION OF PROBABILITY AND CONSEQUENCES THAT CONSTITUTE THE MOST RISK. THEREFORE, OUR REVIEW IS SEEKING

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QUESTION 23. (CONTINUED)

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TO DETERMINE IF PREEXISTING COMPROMISES OF CONTAINMENT INTEGRITY COULD SUBSTANTIALLY INCREASE PUBLIC RISK, BASED UPON THE PROBABILITIES AND CONSEQUENCES OF VARIOUS LEAK SIZES.

WE HAVE REQUESTED ADDITIONAL INFORMATION FROM PSNH TO FACILITATE OUR REVIEW OF THIS ISSUE. QUESTION 22 IN THE LETTER FROM S. LONG TO R. HARRISON, DATED OCTOBER 8, 1986, REQUESTED THAT PSNH CONSIDER CONTAINMENT INTEGRITY VIOLATION EXPERIENCE CONTAINED IN NUREG/CP-4220. IN ADDITION, QUESTION 21 IN THE SAME LETTER AND QUESTION 48A IN THE LETTER FROM S. LONG TO R. HARRISON DATED OCTOBER 23, 1986, ARE PERTINENT TO THE ISSUE BECAUSE CONTAINMENT INTEGRITY IS NOT REQUIRED FOR SOME OPERATING MODES WHEN THE REACTOR IS SHUT DOWN. QUESTION 28 IS ALSO PERTINENT. PSNH RESPONSES TO QUESTION 21, 22, AND 28 WERE PROVIDED IN THE LETTER FROM J. DEVINCENTIS TO S. LONG, DATED OCTOBER 31, 1986. ENCLOSURE 8 TO THE LETTER FROM G. THOMAS TO V. NOONAN, DATED SEPTEMBER 29, 1986, IS ALSO RELEVANT TO CONTAINMENT INTEGRITY. WE ARE CURRENTLY EVALUATING THE INFORMATION RECEIVED AND AWAITING RESPONSE TO QUESTION 48A.

THE CONSEQUENCES OF ACCIDENTS WITH PREEXISTING CONTAINMENT LEAKAGE WOULD BE CALCULATED USING THE SAME RELEASE CATEGORIES ALREADY INCLUDED IN PLG-0465. RELEASE CATEGORY S6W REPRESENTS A CORE MELT

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ACCIDENT WITH AN OPENING OF 50 SQUARE INCHES (8" DIAMETER PIPE) EXISTING FROM THE BEGINNING OF THE EVENT. THIS IS THE SIZE OF THE ON-LINE CONTAINMENT PURGE, WHICH IS THE LARGEST OPENING PERMITTED (AUTOCLOSURE CAPABILITY REQUIRED) BY TECHNICAL SPECIFICATIONS WHILE THE REACTOR IS OPERATING AT POWER. LARGER OPENINGS INCLUDE THE EQUIPMENT HATCH (37'-5" DIA.), THE PERSONNEL AIRLOCK (7' DIA.) AND THE REFUELING PURGE LINE (36" DIA.). RELEASE CATEGORY S2W REPRESENTS A SMALLER LEAK (3" DIAMETER PIPE) THAT DOES NOT BEGIN UNTIL THE REACTOR VESSEL IS BREACHED BY A CORE MELT, AND CATEGORY S1W REPRESENTS A GROSS BREACH OF CONTAINMENT THAT OCCURS WHEN THE REACTOR VESSEL IS BREACHED. IF CONTAINMENT LEAKAGE WERE PREEXISTING RATHER THAN INDUCED FOR RELEASE CATEGORIES S1W AND S2W, THEN SOME RADIOACTIVITY COULD BEGIN ESCAPING EARLIER THAN MODELED FOR THESE CATEGORIES. THE EARLIER RELEASE TIMES WOULD HAVE NO EFFECT ON THE RESULTS OF THE CONSEQUENCES CALCULATIONS EXCEPT WHERE EVACUATION HAS BEEN TAKEN INTO ACCOUNT. THE APPROPRIATE CONSEQUENCE CURVES FOR THESE RELEASE CATEGORIES WITHOUT EVACUATION ARE FOUND IN APPENDICES A AND B OF PLG-0465. RELEASE CATEGORY S1W, WHICH IS THE SAME AS RELEASE CATEGORY PWR-1 IN WASH-1400, REPRESENTS THE MAXIMUM CONSEQUENCE RELEASE CATEGORY IN BOTH STUDIES. GROSS PREEXISTING VIOLATIONS OF CONTAINMENT INTEGRITY DURING A CORE MELT ACCIDENT WOULD PRODUCE CONSEQUENCES THAT ARE BOUNDED BY THE S1W RELEASE CATEGORY.

QUESTION 24.

IN JULY, 1986 THE COMMISSION RELEASED NUREG-0956, "REASSESSMENT OF TECHNICAL BASIS FOR ESTIMATING SOURCE TERMS." ACCORDING TO DISCUSSIONS THAT SUBCOMMITTEE STAFF HAVE HELD WITH NRC STAFF, THE SOURCE TERM MODELS IN THIS STUDY WILL BE UTILIZED IN COMBINATION WITH RISK ASSESSMENT WORK (NUREG-1150) INITIATED AFTER THE THREE MILE ISLAND ACCIDENT WHICH IS INTENDED TO IMPROVE ON THE PROBABILITY ESTIMATES OF WASH-1400. NRC STAFF HAVE INFORMED THE SUBCOMMITTEE THAT TAKEN TOGETHER, THESE TWO WORK PRODUCTS (NUREG-0956 AND NUREG-1150) MAY PROVIDE A BASIS FOR CHANGES IN VARIOUS REGULATIONS, INCLUDING EMERGENCY PLANNING REGULATIONS. WE UNDERSTAND THAT NRC STAFF HOPE TO RELEASE THE NEW STUDY FOR REVIEW AND COMMENT IN EARLY 1987, AND TO RELEASE THE FINAL VERSION IN LATE 1987 OR EARLY 1988.

- (A) TO WHAT REGULATORY ARENAS ARE THE ABOVE MENTIONED STUDIES RELEVANT, AND WHAT REGULATIONS IS THE NRC CONTEMPLATING REVISING IN LIGHT OF THE ABOVE-MENTIONED STUDY RESULTS?

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ANSWER.

THE ABOVE MENTIONED STUDIES ARE RELEVANT TO THE FOLLOWING REGULATORY AREAS:

1. STAFF ASSESSMENT OF ACCIDENT RISK IN ENVIRONMENTAL IMPACT STATEMENTS (EIS),
2. BWR SUPPRESSION POOLS AS A FISSION PRODUCT CLEANUP SYSTEM,
3. EMERGENCY PLANNING,
4. CONTAINMENT LEAK RATES AND INTEGRITY,
5. ENVIRONMENTAL QUALIFICATION OF EQUIPMENT,
6. SAFETY ISSUE EVALUATION,
7. CONTROL ROOM HABITABILITY AND AIR FILTRATION SYSTEMS,
8. SITING,
9. ACCIDENT MONITORING.

POTENTIAL REVISIONS IN MOST OF THESE AREAS ARE CONTEMPLATED WITHOUT CHANGES TO ANY COMMISSION REGULATIONS BY MODIFICATION TO EXISTING STAFF CRITERIA AND GUIDANCE, SUCH AS REGULATORY GUIDES OR APPROPRIATE SECTIONS OF THE STANDARD REVIEW PLAN. HOWEVER, THE NRC DOES CONTEMPLATE REVISING ITS REGULATIONS IN TWO AREAS, NAMELY, EMERGENCY PLANNING AND SITING.

QUESTION 24 (B). WHEN IS THE EARLIEST SUCH RULE CHANGES MIGHT BE OFFERED, AND WHY?

ANSWER.

REVISIONS TO THE EMERGENCY PLANNING REGULATIONS, 10CFR50.47 HAVE BEEN SCHEDULED FOR PUBLIC COMMENT BY JUNE 1987. THIS DATE IS CONSIDERED TO BE PRACTICABLE IN TERMS OF FACTORING IN CONCLUSIONS AND INSIGHTS FROM NUREG-1150 AS WELL AS ANY IMPLICATIONS OBTAINED FROM THE CHERNOBYL ACCIDENT. CHANGES TO THE NRC SITING CRITERIA, 10CFR PART 100, ARE SCHEDULED FOR OCTOBER, 1987, BASED ON A LOWER PRIORITY.

QUESTION 24 (C). SPECIFICALLY, HOW MIGHT EMERGENCY PLANNING RULES BE AFFECTED?

ANSWER.

THE NRC PRESENTLY HAS NO SPECIFIC INDICATIONS OF HOW THE EMERGENCY PLANNING RULES MIGHT BE AFFECTED.

QUESTION 24 (D). IS OUR UNDERSTANDING OF THE SCHEDULE OF THE RELEASE OF THESE STUDIES CORRECT? IF NOT, PLEASE PROVIDE US WITH THE CORRECT INFORMATION.

ANSWER.

YES.

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