



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

March 21, 1986

Docket No. 50-443/444

MEMORANDUM FOR: Thomas Essig, Section Manager  
Health Physics Technology Section  
Radiological Science Department, PNL

FROM: David B. Matthews, Chief  
Emergency Preparedness Branch  
Division of Emergency Preparedness  
and Engineering Response  
Office of Inspection and Enforcement

SUBJECT: REQUEST FOR TECHNICAL ASSISTANCE - NRC  
EMERGENCY PREPAREDNESS PROGRAM

PLANT NAME: Seabrook Units 1 & 2

LICENSEE/APPLICANT: Public Service of New Hampshire

EP REVIEWER: Don Perrotti, 492-4865

Please take action as indicated. If you have any questions regarding the information, activity or schedule, contact the reviewer whose name is shown above.

I. Area of Review

1. ( ) Emergency Plan
2. ( ) Dose calculation
3. (X) Evacuation time estimates
4. ( ) Prompt notification system
5. ( ) Emergency Response Facilities
6. ( ) Emergency Action Levels
7. ( ) Other: \_\_\_\_\_

- II.
1. ( ) Radiological emergency plan (Revision # )  
or applicable portions dated \_\_\_\_\_
  2. ( ) Implementing procedures Nos. \_\_\_\_\_
  3. ( ) (DRAFT) Emergency Planning Evaluation Report (EPER)  
sections \_\_\_\_\_
  4. ( ) Submittal from the licensee/applicant dated 3/5/86; 3/11/86  
(Accession No. 8603110050; 8603130065)
  5. ( ) Meeting announcement
  6. (X) Other Above mentioned sent to Dr. Urbanik on 3/20/86 under  
separate cover.

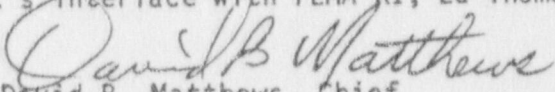
III. Scope of Activities:

1. ( ) Conduct review for deficiencies and submit questions for clarification.
2. ( ) Conduct review and submit evaluation for preparation of input to EPER.
3. ( ) Participate in implementation appraisal at the site.
4. ( ) Participate in exercise observation at the site.
5. ( ) Review EPER input and furnish comments.
6. ( ) Attend meeting.
7. (X) Other Conduct review for acceptability and monitor FEMA's review efforts; if revised ETE becomes an admitted contention, expert testimony may be required.

IV. Schedule

1. ( ) Urgent: Contact EP Reviewer upon receipt FEMA interface,
2. (X) Provide response by for acceptability by 4/30/86; as appropriate.
3. ( ) Initiate meeting to discuss findings (10 working days prior to response date)
4. ( ) Site implementation review on \_\_\_\_\_
5. ( ) Exercise on \_\_\_\_\_
6. (X) Other: Summary disposition motion 5/21/86. Hearing begins 7/21/86.

- V. Supplemental Information or Instructions: FEMA has the lead on ETE review. Dave Matthews will meet with FEMA on 3/25/86 to discuss overall ETE review effort. Clarification of Dr. Urbanik's interface with FEMA RI, Ed Thomas, will follow.

  
David B. Matthews, Chief  
Emergency Preparedness Branch  
Division of Emergency Preparedness  
and Engineering Response  
Office of Inspection and Enforcement

cc:EP Reviewer  
J. Martin, PNL  
M. McClain, PNL  
T. Urbanik, TTI  
S. Turk, ELD  
F. Kantor  
V. Nerses  
R. Van Niel



FACSIMILE REQUEST

Date January 17, 1986

MESSAGE TO: Sherwin Turk, ELD  
MNBB

TELECOPY NUMBER: \_\_\_\_\_

NUMBER OF PAGES: 4 INCLUDING THIS REQUEST FORM

MESSAGE FROM: Jay M. Gutierrez  
U.S.N.R.C. REGION I KING OF PRUSSIA, PENNA.

TRANSMITTED BY: \_\_\_\_\_

DATE & TIME: \_\_\_\_\_

VERIFIED BY: \_\_\_\_\_

S. Turk:

This was a hand-out at a recent T. Murley Press Conference at Seabrook.

Jay

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TEM  
1/6/86

### EMERGENCY PLANNING

In the wake of the March 1979 accident at TMI-2, the NRC undertook a formal reconsideration of the role of emergency planning in ensuring the continued protection of the public health and safety in areas around nuclear power plants. The Commission issued regulations requiring, prior to the issuance of an operating license, a finding of "reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency". The regulations set forth 16 emergency planning standards and define the areas of responsibility of the licensee and state and local organizations concerned with emergency responses.

A key feature of the regulations is the Emergency Planning Zone (EPZ) concept, which has been adopted as an added conservatism to the NRC's "defense in depth" safety philosophy. Briefly stated, this philosophy: (1) requires high quality in the design, construction and operation of nuclear plants to reduce the likelihood of malfunctions in the first instance; (2) recognizes that equipment can fail and operators can make mistakes, therefore requiring safety systems to reduce the chances that malfunctions will lead to accidents that release fission products from the fuel; and (3) recognizes that, in spite of these precautions, serious fuel damage accidents can happen, therefore requiring containment structures and other safety features to prevent the release of fission products offsite. The added feature of emergency planning

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to the defense in depth philosophy provides that, even in the unlikely event of an offsite fission product release, there is reasonable assurance that emergency protective actions can be taken to protect the population around nuclear power plants. The Commission, in order to bound the range of possible accident consequences, adopted a ten mile radius around a plant site as the EPZ.

The overall objective of emergency response plans is to provide a range of protective actions that could be taken to provide dose savings to the population within the EPZ for a spectrum of accidents. It is not the objective of emergency planning to assure evacuation of the EPZ in all possible accidents. For example, in a rapidly evolving accident with early offsite release, sheltering of the population within the EPZ during the passage of the radioactive plume (or cloud-like release) would provide a greater dose savings to the public than attempting to evacuate. After passage of the plume, evacuation may be appropriate to protect the public from continued exposure to the ground dose from radioactive particulate material deposited from the plume.

With respect to the adequacy of emergency plans, the standard of reasonable assurance requires the NRC staff to make a predictive finding that there are no undue risks to the public health and safety. It does not require a finding of zero risk. In particular, the standard of reasonable assurance does not require an absolute demonstration that the population within the EPZ can be



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evacuated within a specified time or that a specified radiation dose be prevented. There may, in fact, be circumstances (such as a severe ice storm) where sheltering rather than evacuation would be the appropriate protective action because evacuation could involve greater risk to the public than exposure to low levels of radiation. Therefore, what constitutes reasonable assurance in the area of emergency planning is a finding that adequate emergency plans are in place to permit a range of protective actions as dictated by conditions, that there are adequate staff and facilities to implement the plans and that the plans have been found to be workable in an emergency exercise.

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