

September 2, 1981

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD



In the Matter of
BOSTON EDISON COMPANY, ET AL.
(Pilgrim Nuclear Generating
Station, Unit 2)

Docket No. 50-471

NRC STAFF RESPONSE TO INTERVENOR CLEETONS' INTERROGATORIES
RELATIVE TO EMERGENCY PLANNING AND TMI-2 RELATED ISSUES

The Staff, reserving its right to Board rulings pursuant to 10 C.F.R. § 2.720(h)(2)(ii), voluntarily answers Intervenor Cleetons' interrogatories filed August 14, 1981 to the extent that it has no objection on other grounds. Instruction C of the interrogatories asking for documents which "pertain to" the interrogatories but not relied upon by the Staff in its answers, and Instruction E, asking for the names of Staff personnel who did not participate in the preparation of Staff's answers herein, are identical to Instructions C and E of the Commonwealth's July 5 interrogatories to the Staff. For the reasons explained in Staff's "Response Pursuant To 10 CFR § 2.720(h)(2)(ii) To The Commonwealth's First Set Of Interrogatories ..." at 2-3, filed July 10, 1981, Staff objects to these instructions.

Interrogatory No. 1

Question:

What was the state of emergency preparedness in the Harrisburg area and in the Commonwealth of Pennsylvania on March 28, 1979? Please explain fully and in detail.

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Answer:

Staff objects to this interrogatory because it does not ask for information relevant to the issues in this hearing, and is not reasonably calculated to lead to discovery of such information. Nonetheless, without waiving its objection, Staff voluntarily answers that the following documents describe the state of emergency preparedness in question:

Report of the Office of the Chief Counsel on Emergency Preparedness to the President's Commission on the Accident at Three Mile Island, October 1979; Staff Report to the President's Commission on the Accident at Three Mile Island, October 1979.

Interrogatory No. 2

Question:

Had Metropolitan Edison and the Commonwealth of Pennsylvania conducted any tests of emergency preparedness? Had they checked supplies, hospital readiness, traffic control plans and security troop emplacement for the protection of citizens and their property around the TMI complex? Please describe fully and give all bases for your answer.

Answer:

See answer to No. 1.

Interrogatory No. 3

Question:

In the opinion of Staff is the state of emergency preparedness in the immediate and extended area around the proposed Pilgrim II less adequate, equal to, or better than that around TMI-2 on March 28, 1979? Please detail all differences and similarities.

Answer:

Only preliminary emergency preparedness planning is required at the construction permit stage of the licensing process. In response to the Three Mile Island (TMI) accident the Commission upgraded its emergency preparedness requirements (see 45 Fed. Reg. 55403, August 19, 1980) and published specific criteria concerning these requirements (NUREG-0654). Once licensee and state and local emergency plans comply with these new requirements they will provide a level of emergency preparedness beyond that existing at TMI when the accident occurred. The differences and similarities cannot be detailed since the final emergency plans for Pilgrim II (which are required at the operating license stage) have not yet been prepared. The NUREG-0654 requirements can be compared with the TMI-2 emergency plans for any differences. The Staff has made no such comparison itself.

Interrogatory No. 4

Question:

To Staff's knowledge have any of the emergency planners spent more than a few hours inspecting specific problem areas described in the studies for evacuation at Pilgrim II? Please give full details of time spent, methods used, and qualifications of planners.

Answer:

Staff objects to this interrogatory pursuant to 10 C.F.R. § 2.720(h) (2)(ii) to the extent that it asks for information available from others such as BeCo and state and local officials. Staff also objects on the ground that it is unclear what "inspecting specific problem areas described

in the studies for evacuation ..." refers to. Staff, based on its understanding of the question says that detailed evacuation planning will be conducted by state and local officials, and their efforts will be reviewed by FEMA. Therefore, the majority of the work on evacuation planning at Pilgrim will be conducted by these organizations. The NRC and its consultants, however, have reviewed the studies prepared by the Applicant as described in NUREG-75/054, Supplement No. 5, and have themselves inspected the site and surrounding area. Staff does not know exactly how much time has been devoted to this effort, though it exceeds one man-week.

Interrogatory No. 5

Question:

If a thorough study has not been done, why has a matter so crucial to the health and safety of the public been ignored?

Answer:

Staff objects to this interrogatory because it does not request relevant information and is not reasonably calculated lead to such information. It is instead argumentative and ignores the requirements of 10 C.F.R. Part 50, Appendix E that only a "preliminary analysis" is necessary at the construction permit stage.

Interrogatory No. 6

Question:

We were told by Mr. Froelich, of the Environmental Protection Division of the NRC, that the NRC had an evacuation plan for Cape Cod. What is the evacuation plan? Please describe in detail.

Answer:

Staff knows of no NRC evacuation plan for Cape Cod.

Interrogatory No. 7

Question:

If the NRC has no plan for evacuating Cape Cod, does the Federal Emergency Management Agency have such a plan? Please describe fully.

Answer:

Staff is not aware of a FEMA evacuation plan.

Interrogatory No. 8

Question:

If there are no plans for evacuating Cape Cod, what are the reasons that a matter so essential to the health and safety preparedness of the public have been neglected? Please list all reasons.

Answer:

Evacuation planning is the responsibility of the licensee and state and local governments. NRC regulations do not require such planning beyond the 10-mile EPZ. The basis for the 10-mile EPZ can be found in NUREG-0396.

Interrogatory No. 9

Question:

Does Staff know whether any study of the voluntary, partial (pregnant women and small children), and general evacuation, which took place after the accident at TMI-2, has been done? Please give full results of such a study.

Answer:

NUREG/CR-1215 discusses the social and economic effects of the TMI accident, including evacuation. In addition, see Geographical Review (January 1981), which contained the article "Evacuation from a Nuclear Technological Disaster" discussing evacuation at TMI.

Interrogatory No. 10

Question:

If a study of these evacuations has not been done, why has this excellent opportunity to learn more about the health and safety needs, and the behavior, of the public in an actual emergency been overlooked? Please explain fully.

Answer:

Staff objects to this interrogatory because it is argumentative, and neither asks for nor is calculated to lead to the discovery of information relevant to the issues in this proceeding.

Interrogatory No. 11

Question:

What study has been conducted by the NRC, or by any agency or person(s) commissioned by the NRC, or by any other person(s), concerning the biological effects of ionizing radiation upon the general population in the immediate and extended areas surrounding MI-2? What are the detailed findings, to date, of this study? What future health problems are projected?

Answer:

See The Report of the President's Commission on the Accident at Three Mile Island (October 1979); NUREG-0558, Population Dose and Health Impact at Three Mile Island Nuclear Station-Preliminary Estimates Prepared by the Ad Hoc Inter-Agency Dose Assessment Group (May 1979).

Also, see answer to No. 9.

Interrogatory No. 12

Question:

If the study referred to in 11 has not been done, when is such a study planned? Why has a study so vital to the health and safety of the public been delayed? Please give a full explanation.

Answer:

See answer to No. 10.

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Interrogatory No. 13

Question:

Has the NRC, or any person(s) or organization, conducted a study of persons in the immediate and extended area around TMI-2, who are at special risk, like Mrs. Cleeton? (See attached letter) This would include persons with respiratory illness, extended irradiation through medical and dental x-rays, radiation therapy, and/or a family history of cancer. If so, what are the findings? Please give full detail.

Answer:

See answer to No. 9. None have been done by the NRC.

Interrogatory No. 14

Question:

If such a study has not been done, why has a matter which would necessarily involve the health and safety of a substantial percentage of the public been disregarded? Please explain fully.

Answer:

See answer to No. 10.

Interrogatory No. 15

Question:

Has a study been done of the psychological and economic effects of the accident at TMI-2? How many people have had to sell their homes at a loss, in order to leave the area? How many people have had to consult psychologists or psychiatrists due to their concerns about the health and safety of themselves and their families? Please list all findings of such a study.

Answer:

See answer to No. 9. In addition, during the past two-and-a-half years there have been numerous studies of the psychological and economic effects of the accident at TMI-2. The results of an NRC study covering the economic effects and general indicators of psychological effects are reported in:

- U.S.N.R.C., Three Mile Island Telephone Survey, NUREG/CR-1093 (October 1979), prepared by Mountain West Research, Inc.;
- U.S.N.R.C., The Social and Economic Effects of the Accident at Three Mile Island, NUREG/CR-1215 (January 1980), prepared by Mountain West Research, Inc.

The findings of these and other studies provided the basis for the environmental and socioeconomic impacts section of the Nuclear Regulatory Commission Special Inquiry Group, Three Mile Island: A Report to the Commissioners and to the Public, Vol. II, Part 2, January 1980.

A study of the effects on real estate is reported in U.S.N.R.C., Effects of the Accident at Three Mile Island on Residential Property Values and Sales, NUREG/CR-2063 (April 1981), prepared by Pennsylvania State University.

The Commonwealth of Pennsylvania has also studied the psychological and economic effects of the accident. The results of these studies are reported in Commonwealth of Pennsylvania, Report of the Governor's Commission on Three Mile Island (February 26, 1980). Greater detail on

the economic effects is provided in Commonwealth of Pennsylvania, Three Mile Island Socio-Economic Impact Study, December 14, 1979, prepared by the Governor's Office of Policy and Planning.

The mental health effects of the accident were extensively considered in Report of the President's Commission on the Accident at Three Mile Island, October 1979, and in the Technical Staff Analysis Report on Behavioral Effects to the President's Commission. Continuing studies of the behavioral effects are being supported by the Pennsylvania Department of Health and the U.S. Department of Health and Human Services, National Institute of Mental Health.

The NRC Staff is not aware of any specific data on how many people have had to sell their homes at a loss in order to leave the area; nor is it aware of data on how many people have had to consult psychologists or psychiatrists due to their concerns about the health and safety of themselves and their families. The findings of the various reports are clearly laid out in those reports but they are too numerous to present here.

Interrogatory No. 16

Question:

If such a study has not been done, can Staff explain why a matter deeply involving the health and safety of the public, as well as their economic welfare, has been omitted from consideration?

Answer:

See answer to No. 10.

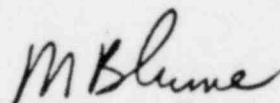
Interrogatory No. 17

Question:

In previous hearings an opportunity for limited appearance statements from local citizens was deferred until the hearings on emergency planning. In Staff's opinion, at what times and locations are these limited appearance statements likely to be authorized?

Answer:

See answer to No. 10. Staff also objects to this question because it asks for information available only from another source, i.e., the Board itself.


Michael B. Blume
Counsel for NRC Staff

Dated at Bethesda, Maryland,
this 2nd day of September, 1981.

September 2, 1981

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In the Matter of
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Docket No. 50-471

AFFIDAVIT OF DINO SCALETTI

I am Project Manager in the Nuclear Regulatory Commission Staff's
Division of Licensing.

The Responses to Intervenor Creetons' Interrogatories Relative to
Emergency Planning and TMI-2 Related Issues filed on August 14, 1981,
and numbered 11-13, 15 were prepared by me. The responses given are
true and accurate to the best of my knowledge.

I declare under penalty of perjury that the foregoing is true and
correct. Executed on 9/2/81.


Dino Scaletti

Dated at Bethesda, Maryland,
this 2nd day of September, 1981.

September 2, 1981

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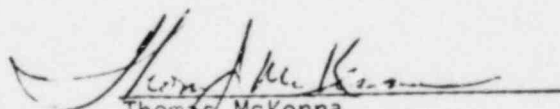
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Docket No. 50-471
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AFFIDAVIT OF THOMAS MCKENNA

I am Emergency Preparedness Analyst in the Nuclear Regulatory Commission Staff's Emergency Preparedness Licensing Branch.

The Responses to Intervenor Cleetons' Interrogatories Relative to Emergency Planning and TMI-2 Related Issues filed on August 14, 1981, and numbered 1-10, 15-16 were prepared by me. The responses given are true and accurate to the best of my knowledge.

I declare under penalty of perjury that the foregoing is true and correct. Executed on 9/2/81.


Thomas McKenna

Dated at Bethesda, Maryland,
this 2nd day of September, 1981.

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CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO INTERVENOR CLEETONS' INTERROGATORIES RELATIVE TO EMERGENCY PLANNING AND TMI-2 RELATED ISSUES", "AFFIDAVIT OF THOMAS MCKENNA", and "AFFIDAVIT OF DINO SCALETTI" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class or as indicated by an asterisk by deposit in the Nuclear Regulatory Commission internal mail system, this 2nd day of September, 1981:

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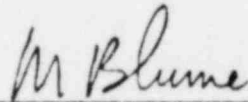
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