

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

May 31, 1979

MEMORANDUM FOR: Lee V. Gossick, Executive Director for Operations

Harold R. Denton, Director, NRR Saul Levine, Director, RES Robert B. Minogue, Director, SD

William J. Dircks, Director, NMSS James J. Cummings, Director, OIA Robert G. Ryan, Director, SP James R. Shea, Director, IP

FROM:

John G. Davis, Acting Director, IE

SUBJECT:

QUESTIONS AND INFORMATION NEEDS FROM IE THREE MILE

ISLAND INVESTIGATION

The Office of Inspection and Enforcement investigation of the Three Mile Island accident and the licensee's actions during the course of the accident has been underway approximately six weeks. I am enclosing a copy of a memorandum of April 20, 1979, from me to the Commissioners describing the IE investigation (please note the changes on page 1 of the Conceptual Outline). During the conduct of the investigation we have been asked by staff members of NRR to look into certain matters.

I request that should you or any member of your staff (including recipients of carbon copies) have questions which you believe should be pursued or information needs which you believe should be addressed within the IE investigation, that you promptly (by June 11, 1979) provide the questions or needs in writing to N. C. Moseley (x28160) of IE Headquarters. We request that the questions or needs be within the scope of the IE investigation as described in the attached April 20, 1979 memorandum. Your request may be directly from the staff member to Moseley and are acceptable in any understandable form -- draft, handwritten, etc.

I will appreciate wide distribution of this memorandum.

Acting Director

Office of Inspection and Enforcement

Enclosure: As stated

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cc: See page 2

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cc w/encl: Albert P. Kenneke, OPE Leonard Bickwit, OGC Samuel J. Chilk, SECY Joseph J. Fouchard, PA Carlton C. Kammerer, C.4 Daniel J. Donoghue, ADM Howard K. Shapar, ELD Learned W. Barry, CON Edward E. Tucker, EEO Norman M. Haller, MPA E. Kevin Cornell, EDO Norman C. Moseley, IE Harold D. Thornburg, IE E. Morris Howard, IE James H. Sniezek, IE Dudley Thompson, IE Leonard I. Cobb, IE Boyce H. Grier, RI James P. O'Reilly, RII James G. Keppler, RIII Karl V. Seyfrit, RIV Robert H. Engelken, RV



#### NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

April 20, 1979

MEMORANDUM FOR: Chairman Hendrie

Commissioner Gilinsky Commissioner Kennedy Commissioner Bradford Commissioner Ahearne

THRU:

Lee V. Gossick

Executive Director for Operations

FROM:

John G. Davis, Acting Director

Office of Inspection and Enforcement

SUBJECT:

INVESTIGATION OF THREE MILE ISLAND ACCIDENT BY THE

OFFICE OF INSPECTION AND ENFORCEMENT

This is to confirm our discussion of April 13, 1979, concerning the Three Mile Island accident investigation underway by the Office of Inspection and Enforcement (IE).

The investigation performed by IE has two basic goals:

- To establish, in a comprehensive manner, the facts concerning the Three Mile Island accident. The parameters of this effort are further described in Attachment A.
- To evaluate the performance of the licensee in association with the Three Mile Island accident as a basis for corrective action or enforcement action as appropriate.

The Office of Inspection and Enforcement investigation does not include, under our current plans, the following:

- Any evaluation of the actions of the NRC or any of its organizational components during the course of this accident or recovery period.
- Any evaluation of the actions of other agencies during the course of the accident, or during the recovery period of the accident.

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- 3. Any review and evaluation of the NRC regulatory process as it relates to the Three Mile Island accident for "lessons learned." IE is not collecting information concerning nor evaluating:
  - Legislative authority of the NRC
  - ° Rules and regulations of the NRC
  - ° Safety research
  - Licensing process
  - Inspection and enforcement process

The Office of Inspection and Enforcement will expand its investigation as directed by the Commission or the EDO. In the absence of such direction, IE is proceeding with its investigation as outlined in this memorandum.

Do'n G. Davis
Acting Director
Office of Inspection
and Enforcement

Enclosure: IE/TMI Conceptual Outline

# OFFICE OF INSPECTION AND ENFORCEMENT THREE MILE ISLAND ACCIDENT INVESTIGATION

#### Conceptual Outline

- The IE investigation of the Three Mile Island accident is directed toward:
  - a. Within the time period of the investigation, establishing the facts concerning the immediate causes of the accident and the actions of the plant and the licensee staff during the course of the accident.
  - b. Within the time period of the investigation, establishing the facts concerning the actions of the licensee, the NRC, other Federal agencies, and appropriate state agencies.
  - c. Evaluating the performance of the licensee during and in response to the Three Mile Island accident as a basis for corrective action or enforcement action as appropriate.
- 2. The investigation consists of two parts conducted in parallel:
  - a. Operational The inplant, reactor operations situation. This will cover the time period from the closing of the auxiliary Feedwater System valves (or other earlier immediate cause of the accident) to the restart of reactor coolant pump 1A (about 8:00 p.m., March 28, 1979).
  - b. Radiological The inplant and environmental radiological conditions. This will cover the time period from the beginning of the accident until about midnight on March 31, 1979.2/
- 3. The Office of Inspection and Enforcement will develop factual information concerning the condition of the plant and the environment and the performance of the licensee for the time periods subsequent to those described in Item 2, above. However, this information will not be included in the IE Three Mile Island Accident Investigation. (Note that this does not include development of information concerning NRC activities. The information will include the licensee's reaction and response to NRC activities but will not develop, for example, how an NRC position or recommendation was formulated.)

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<sup>1/</sup> The IE investigation concerning the actions of the NRC, other Federal agencies, and appropriate state agencies will only establish facts (within the time periods of the IE investigation) and only insofar as those actions influenced the actions of the licensee.

<sup>2/</sup> This time may be changed to "... about midnight on March 30, 1979."

### 4. The investigation will include:

a. Sequence of Events

### (1) Operational

Identify the sequence of events in relation to facility operation. Determine licensee actions or lack of actions related to operation of the facility within licensed parameters, constraints and limits. Determine the participation of licensee supervision, management and engineering support. Determine causes of the event.

### (2) Radiological

Identify the sequence of events in relation to licensee activities in radiation control on site and off site. Determine licensee actions or lack of actions related to controlling and monitoring on site exposures, protection of workers, and control and monitoring of off site releases.

b. Immediate Cause of Accident

#### (1) Equipment

Trace the performance and maintenance history of important equipment which malfunctioned at the beginning or during the early phases of the incident. Define the signals or other intelligence provided to operators concerning serviceability and availability of equipment. Identify the serviceability of equipment required for operation.

## (2) Procedures

Determine the requirements contained in surveillance and maintenance procedures and the appropriateness of procedures. Identify failures to follow procedures. Determine appropriateness of communications between plant groups on plant and equipment status. Determine whether emergency operating procedures were appropriate and were followed.

# (3) Staff Performance

Describe the performance of the operators and other licensee personnel during the accident. Review training of operators particularly training concerning response to off-normal limits.

c. Licensee Management of Accident

Describe the response of the licensee from the standpoint of management and supervision of the accident. Identify the engineering and radiological support requested and received and its source. Determine the licensee's reaction to and analysis of the accident as it unfolded with particular emphasis on engineering analysis of alternative modes of accident recovery.

d. Emergency Plan Activation

Examine the licensee's emergency plan implementation to include preplanning and tests. Develop a detailed chronology of the implementation of the emergency plan with particular emphasis on timeliness of notification.

 This investigation is being managed by the NRC Region I Office.