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United States Senate

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

WASHINGTON, D.C. 20510

September 10, 1980

Honorable John F. Ahearne
Acting Chairman
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chairman:

Now that the Subcommittee on Nuclear Regulation has completed the report of its special investigation of the Three Mile Island accident, we would like to bring to your attention certain matters that our inquiry was unable to pursue to the fullest extent possible, either because of a lack of resources and time or because of new documents that became available too late to be utilized.

These matters pertain to the utility's response during the first day of the accident, particularly to the question of whether vital information on plant conditions was known to key utility personnel and was communicated promptly to NRC and to State officials. Inasmuch as the Office of Inspection and Enforcement is now conducting an investigation at the direction of the Commission into related matters raised by Congressman Udall, we would appreciate it if this investigation also would pursue the following matters that are an outgrowth of the Senate Special Investigation.

1. According to the so-called "Key People Meeting" Tape of April 14, 1979, the head of the utility's Emergency Command Team was told that the incore thermocouples might have melted and was given this information as the basis for considering them unreliable. When the head of the utility's Emergency Command Team discussed the readings from the incore thermocouples as unreliable, did he consider the possibility that temperatures sufficient to knock out the thermocouples were also sufficient to indicate uncovering of the reactor core? Did he discuss this possibility with members of the Emergency Command Team? Was there any discussion of the need to communicate the possibility of such high temperatures to the NRC and the State? If not, what is the explanation?

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2. Our evidence and that of the other investigations indicate that the head of the utility's Emergency Command Team was informed by telephone at about 6:30 A.M. that the pressurizer relief valve (PORV) was closed. It is not known, however, whether he had been informed at that time, or at some time during the first day, that the PORV had been stuck open for 2½ hours before it was closed. If he had been aware of this information, he would have had a principal indicator that the core had been uncovered. Was he aware of this information during the first day? If so, why did he not communicate it to the NRC or to the State?

3. The utility's Superintendent of Technical Support told the Senate Special Investigation (p.116) that he and others had been concerned the core had been uncovered for a period of hours after 6:45 A.M. During this period the utility established contact with both the State and the NRC, but this information was not conveyed by the utility. Why was the information not conveyed?

4. There appears to be a conflict between what the Supervisor of Operations at TMI-1 communicated to the NRC at 10:15 A.M. of the first day, and what he later told I&E investigators (I&E Tape 226) as to whether he believed at that time that the core was covered. Can this apparent contradiction in the evidence be resolved?

5. The head of the utility's Emergency Command Team told the Senate Special Investigation that he had been unaware of the "hydrogen spike" during the afternoon of the first day of the accident. However, our evidence shows that utility personnel in the neighboring Unit-1 control room had knowledge of the hydrogen spike. How is this apparent difference between what was known by the top emergency official of the utility and by other utility personnel explained?

6. Can you provide information on what the head of the utility's Emergency Command Team and other key utility officials discussed on the way to the Lieutenant Governor's office shortly after the hydrogen spike? Also what did the head of the utility's Emergency Command Team discuss with the plant during lengthy telephone conversations from the Lieutenant Governor's office?

7. We learned, after completion of our investigation, of the transcript of a telephone conversation that took place at 9:30 A.M. the first day between the head of the utility's Emergency Command Team at the site and a representative of GPU at the Reading headquarters (the Miller-Troffer tape). The transcript suggests serious cooling problems in the core and the inadequacy of operating procedures for dealing

with them. What is the significance of this transcript regarding knowledge by utility personnel of the severity of the accident that was not communicated to the NRC or to the State? Was there any additional conversation on the tape that was not recorded in the transcript, or were there subsequent recorded conversations between the plant and Met Ed or GPU headquarters?

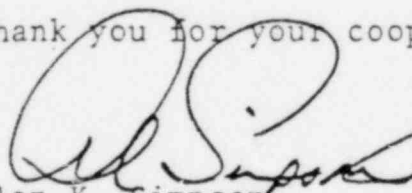
8. Similarly, a report dated June 21, 1979 by the reactor vendor's site operations manager to the company was not available to us during our investigation. This report indicates that the integrity of the containment was checked immediately after the hydrogen spike. What is the significance of this information regarding what was known by him and other key personnel at the plant about the existence and the significance of the hydrogen spike at the time it occurred?

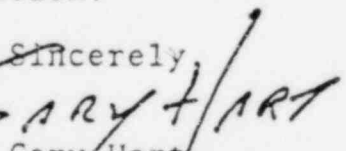
9. Assuming that the Miller-Troffer tape indicates acknowledgement by the utility that operating procedures were inadequate for coping with an unprecedented emergency situation, why did not the utility communicate to the NRC and the State the inadequacy of these procedures?

We would appreciate your pursuing these matters promptly by means of the I&E investigation. Please keep us and our staffs informed on the progress and the results of your interviews of the involved plant and utility personnel.

Finally, we understand that the I&E investigation is seeking to determine the need for upgrading NRC requirements on licensees for reporting on plant conditions and on the need for consideration of protective action during an accident. In this regard, please advise us on whether a key conclusion of our investigation -- that uncertainty itself is a plant condition that should be considered in determining the need for precautionary evacuation or other protective action during an accident -- is being considered as part of this review of NRC reporting requirements. Please keep us and our staffs advised on whether a utility will be required to promptly report any uncertainty as to whether a core is covered and on how uncertainty would be defined for use in such a requirement.

Thank you for your cooperation.


Alan K. Simpson
Ranking Minority Member
Subcommittee on Nuclear
Regulation

Sincerely,

Gary Hart
Chairman, Subcommittee
on Nuclear Regulation