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NOV 3 1980

Mr. Aldo Marchetti
2 Coldport Drive
Huntington, New York 11743

Dear Mr. Marchetti:

Your letter to Mr. Denton about the release of radioactive material from the Three Mile Island nuclear station was referred to me for response.

You asked why NRC has the authority to permit venting krypton into the atmosphere and why EPA was only an observer. NRC was created by Congress to regulate the commercial use of nuclear energy. EPA was designated by the President as the lead federal agency for conducting a comprehensive long-term environmental radiation surveillance program as a followup to the accident at TMI-2. EPA reviewed our draft "Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmospherē" and recommended purging. The licensee has the primary responsibility to physically carry out decontamination operations.

Metropolitan Edison Company submitted to NRC a "Safety Analysis and Environmental Report" (November 13, 1979) in which it evaluated alternative methods for the disposal of the krypton gases, such as purging and cryogenic processing, and selective absorption. NRC also evaluated alternative methods for disposal of the krypton gas to determine what effect decontamination would have on workers, on the public health and safety, and on the environment. Based on its evaluation, NRC issued an environmental assessment (NUREG-0662 and two addenda) for public comment on March 26, 1980, and received approximately 800 comments. These comments were considered in the staff's preparation of the "Final Environmental Assessment for Decontamination of the Three Mile Island Unit 2 Reactor Building Atmosphere" (NUREG-0662), vols. 1 and 2, copies of which are enclosed for your information.

From this process have emerged the following NRC staff conclusions:

- The potential physical health impact on the public of using any of the proposed strategies for removing the krypton-85 is negligible.
- The potential psychological impact is likely to grow the longer it takes to reach a decision, get started, and complete the process.
- The purging method is the quickest and the safest for the workers on Three Mile Island to accomplish.

OFFICE ➤	- Overall, no significant environmental impact would result from use of <u>any</u> of the alternatives discussed in the assessment.				
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Mr. Aldo Marchetti

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On June 12, 1980, the Commission issued an Order for Temporary Modification of License, authorizing controlled purging of the krypton-85 from the reactor building atmosphere. In a separate Memorandum and Order, also issued on June 12, 1980, the Commission discussed rationale for its decision. Actual purging operations began on June 28, 1980, and were completed on July 11, 1980. The doses resulting from the purge were well within those predicted in section 7.1 of volume 1 of NRC's final environmental assessment. Section 4.2 of NUREG-0662 discusses the radioactive decay that has taken place for the other contaminants you asked about. Copies of both Commission issuances are also enclosed.

There is no simple formula for converting curies to rads or rems. Many other variables must be taken into consideration. Therefore, rather than giving you a conversion, I am enclosing a copy of EPA's actual dose assessment of maximum exposure to the general population resulting from the purging of krypton-85.

I appreciate your concerns and assure you that every effort is being made to ensure the continued protection of the health and safety of the public, not only at Three Mile Island, but also at all nuclear power plants.

Sincerely,

BS

Bernard J. Snyder, Program Director
Three Mile Island Program Office
Office of Nuclear Reactor Regulation

- Enclosures:
1. NUREG-0662, vols. 1 & 2
 2. Order for Temporary Modification of License of June 12, 1980
 3. Memorandum and Order of June 12, 1980
 4. EPA Dose Assessment

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