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OCT 20 1980

Dennis Fried, Ph.D.
616 South West End Avenue
Apartment 10
Lancaster, Pennsylvania 17601

50-328

Dear Dr. Fried:

Your letter to Commissioner Hendrie regarding the release of radioactive material from the Three Mile Island nuclear station was referred to me for response. I regret that this answer has been delayed. The accident and its consequences have created a substantial increase in the agency's workload, which has prevented me from responding to you as promptly as I would have liked.

With regard to your statement about "how much radiation leakage there was in the early stages of the accident," the small dose of radiation that people in the area received came from radioactive gases that escaped from the auxiliary building. The average dose of radioactivity the population within 50 miles of TMI received was approximately 4 millirems. The maximum exposure to any individual was less than 100 millirems, which is less than the yearly dose each person receives as a result of natural background radiation. Doses at these levels result in less than one health effect over the lifetime of all people in this area. Natural background radiation people in the Harrisburg area receive is approximately 125 millirems per year. To put these doses into perspective, note that a traveler flying round trip by jet from New York to Los Angeles receives 5 millirems of cosmic radiation.

NRC has prepared a programmatic environmental impact statement (PEIS) for public comment on the decontamination and disposal of radioactive wastes resulting from the accident at Three Mile Island Unit 2. The PEIS, a copy of which is enclosed for your information, focuses on the environmental issues and alternative methods associated with the performance of these cleanup activities.

With regard to your concern about the release of contaminated water, except for releases to the Susquehanna River of liquids containing only low or nondetectable levels of radioactivity, such releases are not currently permitted. The Commission authorized use of the EPICOR-II water treatment system for processing the waste water stored in tanks in the auxiliary building. We do not currently permit the discharge of water processed by the EPICOR-II system. The disposal of the water processed by EPICOR-II is also addressed in the PEIS on the decontamination and disposal of radioactive waste at Three Mile Island.

As a result of releases containing only low or nondetectable levels of radioactivity, the levels of radioactivity in the Susquehanna are indistinguishable from existing background levels at public water supply intakes from the river.

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These levels have been confirmed by independent measurements made by the NRC, the Environmental Protection Agency, and the Commonwealth of Pennsylvania.

With regard to your concern about the purging of the radioactive krypton gas from the reactor building of TMI Unit 2, 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.
- Overall, no significant environmental impact would result from use of any of the alternatives discussed in the assessment.

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. Copies of both Commission issuances are also enclosed.

In response to your concern about who will pay for the cleanup, the Pennsylvania Public Utility Commission (PUC), in a decision and order of June 15, 1979, ruled that costs of damages caused by the accident at Three Mile Island would not be included in the present rate base for customers of Metropolitan Edison and the Pennsylvania Electric Company. These customers will, however, be responsible for costs associated with purchasing power to replace power that the TMI facility would have provided. The Pennsylvania PUC reaffirmed this decision in an order of May 23, 1980.

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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,

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

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

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