

TERA

OCT 20 1980

Mr. & Mrs. Arthur C. Stevenson
Spring Mill Road, RD #1
Chadds Ford, Pennsylvania 19317

Dear Mr. & Mrs. Stevenson:

Your letter to Mr. Denton about the release of krypton-85 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.

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

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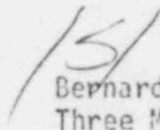
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operations began on June 28, 1980, and were completed on July 11, 1980. The doses resulting from the purge were well within those predicted in section 7.1 of volume 1 of NRC's final environmental assessment. Copies of both Commission issuances are also enclosed.

In response to your concern about "the hazard to the health of the people in that area," 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, Pennsylvania, 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.

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

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November 30, 1979

Mr. Harold Denton
Director, Nuclear Reactor Regulation
Nuclear Regulatory Commission
Washington, D.C.

Dear Mr. Denton:

We are writing regarding Commonwealth's request to vent radioactive Krypton into the atmosphere at Three Mile Island.

We are concerned about the hazard to the health of the people in that area, that are being repeatedly exposed to these so-called "very small amounts" of radioactive materials. There is real potential with each release, accidental or planned, of initiating some form of carcinoma in unsuspecting hosts, such as children.

We strongly urge you to stop permitting the releasing of the hazardous materials into the atmosphere, and to consider insisting that they be concentrated and sealed in suitable containers and buried safely in proper locations.

Sincerely,

M/M Arthur C. Stevenson
M/M Arthur C. Stevenson
Spring Mill Rd., R.D.1
Chadds Ford, PA 19317

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