

SEP 30 1980

Docket No. 50-320

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Ms. Helen Kunkel
R.D. 2, Box 145
Breinigsville, Pennsylvania 18031

Dear Ms. Kunkel:

I am writing in response to your letter regarding your son's illness and venting of krypton-85 from TMI-2.

With regard to your concern about the purging of the radioactive krypton gas from the reactor building, Metropolitan Edison Company submitted to NRC a "Safety Analysis and Environmental Report" (November 13, 1979) in which they 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 potential 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,

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1980, the Commission discussed rationale for their decision. Actual purging operations began on June 28, 1980, and were completed on July 11, 1980. Copies of both Commission issuances are also enclosed. The doses resulting from the purge were well within those predicted in Section 7.1 of Volume 1 of NRC's Final Environmental Assessment.

In addition, I am enclosing a copy of NUREG-0673, "Answers to Questions About Removing Krypton from the Three Mile Island, Unit 2 Reactor Building," which also discusses health effects of exposure to krypton-85.

Perhaps your son should visit his physician to determine the cause of his illness.

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 the Three Mile Island Station, 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
2. NUREG-0673
3. 6/12/80 Orders

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