

TERA

JAN 24 1980

Fangl James
212 E. Spruce St.
Norristown, PA 19401

Dear Fangl:

I appreciate receiving your letter on the accident at Three Mile Island. I am sorry that my answer to your letter has been delayed for so long. We have been very busy here because of the accident.

The accident had several contributing causes. These included human error, aspects of plant design, and equipment malfunction. I am enclosing a report summary that will give you a more detailed description of events before, during, and after the accident. The entire report is titled "Investigation into the March 28, 1979, Three Mile Island Accident by the Office of Inspection and Enforcement" (NUREG-0600).

A team of investigators from the Nuclear Regulatory Commission, the Environmental Protection Agency and the Department of Health, Education and Welfare calculated the doses to the people living within 50 miles of the Three Mile Island site and estimated the number of new cancers that would result from the exposure to the radioactivity that leaked out of the plant. The team published their work in a report entitled "Population Dose and Health Impact of the Accident at the Three Mile Island Nuclear Station" (NUREG-0558). They concluded that the offsite collective dose associated with radioactive material released from March 28, 1979, to April 7, 1979, represents minimal risks (that is, a very small number of additional health effects to the offsite population). A summary of NUREG-0558 is enclosed.

The preliminary findings indicate that the radioactive materials that were released were primarily radioactive gases. The radioactivity was almost entirely from xenon, which is a chemically inactive gas. As the gases leaked out, the winds diluted them. To determine if food grown in the area will be contaminated, the Department of Energy measured the amounts of radioactivity present in the samples of soil, water, air and vegetation.

Based on these samples and other information it was concluded that the principal isotopes in the escaped gases were xenon-133 and xenon-135. Although radioactive iodine was found in samples of some milk, the concentration was less than 1% of the concentration permitted by NRC regulations. Other food

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samples were tested by the U.S. Food and Drug Administration and none of the 377 food samples tested contained reactor-produced radioactivity. The ground is therefore not contaminated and there is no reason to believe the accident at Three Mile Island has affected the ground.

Several NRC staff task forces have been organized to identify and evaluate safety concerns, which originated from the Three Mile Island accident, that merit consideration in the licensing actions for presently operating reactors as well as those for which operating licenses and construction permits are pending.

The task forces' reviews have disclosed a number of actions in the areas of design and analysis and plant operations that will be required in the short term to provide substantial additional protection of the public health and safety. All nuclear power plants in operation or under construction will be affected to varying degrees by the specific recommendations.

The former Atomic Energy Commission (AEC) had a Congressional mandate to develop and promote nuclear energy. When the AEC was abolished in 1974, the NRC was created by Congress for the sole purpose of regulating the commercial production of nuclear energy. The U.S. Department of Energy (DOE) is now responsible for the Federal Government's nuclear research and development activities. Consequently, questions about the future of this energy source should be directed to that agency.

I hope this information will be helpful to you.

Sincerely,



Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. Summary of NUREG-0600
2. Summary of NUREG-0558

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Docket (w/orig inc ltr)	W01iu
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