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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

APR 3 1980

Mr. Joe Paquette 39 Julian St. Haverhill, MA 01830

Dear Mr. Paquette:

I am writing in response to your letter to the Commission regarding your request for information about the Three Mile Island accident. I regret that this answer to your letter has been delayed and is not in time for your reply to the radio talk show. 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 to.

You asked "how serious was the accident in terms of radiation contamination to residents of the area?" The small dose of radiation that was received by people in the area came from radioactive gases that escaped from the auxiliary building. The average dose of radioactivity received by the population within 50 miles of Three Mile Island 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 received by people in the Harrisburg, Pennsylvania, area is approximately 125 millirems per year. To put these doses into perspective, note that a traveler flying round trip in a jet between New York City and Los Angeles receives 5 millirems from cosmic rays in the natural background. I am enclosing here the summary of a report on "Population Dose and Health Impact" of the accident (NUREG-0558).

You asked what caused the accident. That is difficult to answer in a short space. The accident had several contributing causes. These included human error, aspects of plant design, and equipment malfunction. I am enclosing here the summary of a report 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).

You asked who was investigating the accident. 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.

> THIS DOCUMENT CONTAINS POOR QUALITY PAGES

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.

Enclosed are the two report summaries I mentioned. In addition, you may wish to obtain a copy of the report by NRC's Special Inquiry Group (also known as the Rogovin Report) by writing to:

GPO Sales Program
Division of Technical Information and
Document Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

We are pleased to provide you with this information.

Sincerely,

Harold R. Denton, Director Office of Nuclear Reactor Regulation

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