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

February 15, 1980

Mr. George Taleff
R.D. #1
Londonderry Manor
Middletown, PA 17057

Dear Mr. Taleff:

I am writing in response to your letter to Secretary Chilk regarding your concerns about Three Mile Island. I regret that this answer to your letter 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 to.

I understand your dissatisfaction with the terms "minimal release," "off-scale," etc., when they are applied to emissions of radioactive substances. Rather than try to explain how these terms can be misleading and confusing, let me simply present the findings of investigations by various agencies.

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).

The very small dose of radiation that was received by people in the area came from radioactive gases that escaped from the auxiliary building. 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

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125 millirems per year. To put these doses into perspective, it should be noted 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. These estimates of doses and assessment of effects are essentially the same as those arrived at by the President's Commission on the Three Mile Island accident. Enclosed for your information is a summary of a report, NUREG-0558, which discusses the population dose in more detail.

With regard to your concern about the release of radioactive gases from the reactor building of TMI Unit 2, such releases are not currently permitted. Before the gases are disposed of by any method, the impact will be evaluated by the NRC and the evaluation will be made available to the public. The Commission has also decided that concerned citizens should be given the opportunity to present their views orally at a public meeting prior to any approval of proposals to dispose of radioactive gases in the TMI Unit 2 reactor building. By this course of action, we will assure that a thorough assessment is completed prior to release of the contaminated gases and that the health and safety of the offsite population will be protected.

The emergency plans of all power reactor licensees have been reviewed by the staff in the past for their conformance with NRC regulations (Appendix E to 10 Code of Federal Regulations Part 50). However, the most recent guidance on emergency planning, primarily that given in Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," has not yet been fully implemented by most reactor licensees. Further, there are some additional areas where improvements in emergency planning have been highlighted as particularly significant by the Three Mile Island accident.

Proposed evacuation routes for citizens in Pennsylvania are currently being developed by the Pennsylvania Emergency Management Agency. Specific information about proposed evacuation routes can be obtained from the following source:

Colonel Orren K. Henderson
Pennsylvania Emergency
Management Agency
Harrisburg, PA 17120

The NRC has undertaken extensive effort to improve licensee emergency preparedness at all operating power reactors and at those reactors scheduled for an operating license decision within the next year. Meetings were held at our regional offices to discuss the recent impacts of emergency planning and current regulations. In addition, a team of NRC Emergency Planning Task Force members will visit every operating reactor site in the country to evaluate whether the site's emergency planning needs upgrading. These site visits will be completed by June 1980. This effort will be closely coordinated with a similar effort by NRC's Office of State Programs to improve State and local response plans through the concurrence process and NRC's Office of Inspection and Enforcement efforts to verify proper implementation of licensee emergency preparedness activities.

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With regard to your comments concerning the possible future operation of Three Mile Island, the Commission has ordered that a public hearing be conducted to determine whether the facility should be operated and, if so, under what conditions restart of Unit 1 would take place. Prior to start of the hearings, the NRC staff will conduct a review of technical information concerning the restart of Unit 1. As part of this review, the NRC staff will conduct meetings with the licensee in the presence of the public, and the public will be given the opportunity to raise questions and to make statements. During the hearing, the technical issues which are appropriate to assure the public health and safety will also be addressed. In addition, the Hearing Board may consider the psychological impact of future operation on the nearby communities. A copy of the Commission Order which outlines the issues to be considered is enclosed for your information.

As for Three Mile Island Unit 2, the licensee has not yet sent to the NRC a proposal for plant recovery, although the licensee is conducting feasibility studies. It is not possible at this time to determine when such proposals for recovery may be submitted or how much time will be needed for the required reviews and approvals in connection with Unit 2's recovery. I would note, however, that the licensee's authority to operate Unit 2, except for those actions necessary to keep the reactor shut down, was suspended by Order of July 20, 1979.

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,

Harold R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Encls: Summary of NUREG-0558
Commission Order, Docket No. 50-289

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DATE	1-30-80	1/31/80	1/31/80	2/4/80

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