Docket File

JAN 10 1980

Mr. Scott Bulfair
65-22 75th Pl.
Middlevillage, NY 11379

Dear Mr. Bulfair:

I am writing in response to your letter of April 12, 1979 to Commissioner Hendrie concerning the accident at 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.

There was some delay in making public the situation that existed in the Three Mile Island Facility. This was primarily due to the fact that there was a lack of information flow out from the Three Mile Island control room where the information is gathered and recorded. Without the necessary information it was very difficult to assess the condition of the facility. Therefore, there was a delay until sufficient information was available to ascertain the seriousness of the situation. Through the institution of new requirements of licensees we expect that such delays will be avoided in the future. Enclosed for your information is an account of how the accident happened.

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 was 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 on 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 samples were tested by the U.S. Food and Drug Administration, and none of the 377 food samples tested contained reactor-produced radioactivity.

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 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, 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.

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, Director
Office of Nuclear Reactor Regulation

Encl: Summary of NUREG-0600

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