William J. Petko 98 Kiester Road Slippery Rock, PA 16057

Dear Mr. Petko:

I am writing in response to your letter to Commissioner Hendrie regarding Iodine-131 emissions from 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.

The preliminary findings on the health effects of the radioactive materials released are contained in the interagency task force report, "Population Dose and Health impact of the Accident at the Three Mile Island Nuclear Station" (NUREG-0558). 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 samples were tested by the U.S. Food and Drug Administration and none of the 377 food samples tested contained reactor-produced radioactivity.

Enclosed for your information is a summary of "Population Dose and Health Impact of the Accident at the Three Mile Island Nuclear Station" (NUREG-0558), which includes a report of the health effects of iodine.

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,

Original signed by

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Harold R. Denton, Director Office of Nuclear Reactor Regulation

Encl:	Summary of	NUREG-0558		1	A A STATE OF THE S
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