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JAN 18 1980

Ms. Eunice Green  
4025 Inglewood Blvd.  
Los Angeles, CA 90066

Dear Ms. Green:

I am writing in response to your letters to President Carter, Senators Cranston and Hayakawa, and members of the Nuclear Regulatory Commission, regarding your views on the nuclear industry. 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. A summary of NUREG-0558 is enclosed.

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.

We have taken a number of actions with respect to all nuclear power plants as a result of the Three Mile Island incident. Specifically, full-time inspectors have been assigned to each operating plant utilizing Babcock and Wilcox (B&W) pressurized water reactors like those at Three Mile Island. In addition, all such plants were shut down and the licensees of each plant were instructed to provide us with additional information about their facilities in light of the Three Mile Island incident. After review of the information provided, orders were issued to the licensees that required them to make immediate plant modifications, to provide additional operator training, and to revise certain

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operating procedures. Additional long-term actions were ordered to further upgrade certain plant systems, and operator training, and procedures. All of these plants, except of course the Three Mile Island plant, have complied with the orders and have been permitted to resume operation.

In addition, licensees of all operating plants utilizing pressurized water reactors have been instructed to take specific actions with regard to the status of certain equipment, plant procedures, operator actions, and facility designs. Licensees of all operating plants, including those utilizing boiling water reactors, have been instructed to provide us with additional information with regard to their facilities in light of the Three Mile Island incident.

We are currently reviewing the information provided. As soon as our review is complete, orders for modifications, as appropriate, will be issued to provide additional protection to the health and safety of the public.

In addition to the actions outlined above, as a result of TMI-2, studies were initiated in the areas of emergency preparedness, operator licensing reassessment, loss of feedwater event, small-break loss of coolant accidents, and lessons learned from the incident. In a number of areas work has progressed to the point where additional license requirements have been recommended. A number of these recommendations have been approved and efforts have begun to implement them.

With regard to your comments on the Diablo Canyon power plant, stringent design requirements are applied to nuclear power plants to assure that they are capable of withstanding the effects of natural phenomena such as flooding, winds, tornadoes, and earthquakes. The Hosgri Fault was discovered in 1971, well after the construction of the Diablo Canyon plant had started; this fault is located 3.5 miles offshore from the Diablo Canyon plant site. As a result of this discovery, an intensive investigation of the Hosgri Fault was undertaken by the Pacific Gas & Electric Company, the U.S. Geological Survey (USGS) and the Nuclear Regulatory Commission. As a principal geology advisor for the Commission, the USGS in 1975 suggested that a magnitude of 7.5 be assigned as a potential seismic value for the Hosgri Fault, and the Commission adopted this value. Comprehensive public hearings on this matter were held by the Atomic Safety and Licensing Board over about a two-month period. These hearings were completed on February 15, 1979, and a Partial Initial Decision was rendered by the Atomic Safety and Licensing Board on September 27, 1979. A copy of that decision, which is an excellent synopsis of the seismic situation at Diablo Canyon, is available in the Public Documents Room in the Documents and Maps Department of the California Polytechnic Institute in San Luis Obispo.

The President of the United States appointed a committee composed of scientists, politicians, and laypersons (the Kemeny Commission) to study the Three Mile Island accident and the circumstances surrounding the accident. There is currently a pause in licensing until recommendations of the Kemeny Commission and the NRC staff investigations have been evaluated, and until those relevant to licensing are implemented. The "Report of the President's Commission on

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the Accident at Three Mile Island - The Need for Change: The Legacy of TMI" discusses some of the nontechnical problems which may have contributed to the accident.

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-0558

OFFICE	ANL/TMI	TMI task force	TMI task force	D/TMI/2	
SURNAME	P. Chee	W. Olin	S. Miner	R. Vollmer	
DATE	1-11-80	1/15/80	1/14/80	1/15/80	

