

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

MAR 2 9 1980

Mrs. Nancy B. Wenger 522 Antoine Street Harrisburg, Pennsylvania 17102 THIS DOCUMENT CONTAINS POOR QUALITY PAGES

Dear Mrs. Wenger:

This is in reply to your letter of June 13, 1979, which you sent to a number of people including the Chairman of the Nuclear Regulatory Commission and which expressed your opposition to nuclear power because of the release of radioactivity during the Three Mile Island accident. I am sorry for the delay in responding, but we have been very busy with the aftermath of that accident.

You may be interested in the enclosed excerpt from the Report of the President's Commission on the Accident at Three Mile Island. This gives the Commission's findings on health effects and includes the following statement:

"On the basis of present scientific knowledge, the radiation doses received by the general population as a result of exposure to the radioactivity released during the accident were so small that there will be no detectable additional cases of cancer, developmental abnormalities, or genetic ill-health as a consequence of the accident at TMI."

The Nuclear Regulatory Commission is committed to protect the public health and safety. The Three Mile Island accident resulted in a need for changes in the approach to safety. The Nuclear Regulatory Commission has found that actions recommended by its own staff and by the President's Commission on the Accident at Three Mile Island in the areas of human factors, operational safety, emergency planning, nuclear power plant design and siting, health effects, and public information are necessary and feasible. Interim measures have been taken, and other measures are being included in an Action Plan that will specify new or improved safety objectives, detailed criteria for their implementation, and various implementation deadlines.

Every effort is being made to ensure the safety of all nuclear power plants that are currently operating or that may start operating in the future.

Sincerely,

Harold R. Denton, Director Office of Nuclear Reactor Regulation

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Enclosure: As stated

Report Of The President's Commission On THE ACCIDENT AT THEREE MILLE ISLAND

EXCERPT

The Need For Change:
The Legacy Of TMI
October 1979 Washington, D.C.

The President's Commission On

ACCIDENT ATTIMI

John G. Kemeny, Chairman President, Dartmouth College

Bruce Babbitt

Governor of Arizona

Patrick E. Haggerty

Honorary Chairman and

General Director

Texas Instruments Incorporated

Carolyn Lewis

Associate Professor

Graduate School of Journalism

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and Frode Jensen Professor

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Professor of Sociology and

Afro-American Studies

University of Wisconsin-Madison

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United Steelworkers of America

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Partner

Verner, Liipfert,

Bernhard, and McPherson

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President

National Audubon Society

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Professor and Chairman

Department of Nuclear

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University of California at

Berkelev

Theodore B. Taylor

Visiting Lecturer

Department of Mechanical

and Aerospace Engineering

Princeton University

Anne D. Trunk

Resident

Middletown, Pennsylvania

B. HEALTH EFFECTS

- Based on available dosimetric and demographic information:
- a. It is estimated that between March 28 and April 15, the collective dose resulting from the radioactivity released to the population living within a 50-mile radius of the plant was approximately 2,000 person-rems. The estimated annual collective dose to this population from natural background radiation is about 240,000 person-rems. Thus, the increment of radiation dose to persons living within a 50-mile radius due to the accident was somewhat less than one percent of the annual background level. The average dose to a person living within 5 miles of the nuclear plant was calculated to be about 10 percent of annual background radiation and probably was less.
- b. The maximum estimated radiation dose received by any one individual in the off-site general population (excluding the plant workers) during the accident was 70 millirems. On the basis of present scientific knowledge, the radiation doses received by the general population as a result of exposure to the radioactivity released during the accident were so small that there will be no detectable additional cases of cancer, developmental abnormalities, or genetic ill-health as a consequence of the accident at TMI.
- c. During the period from March 28 to June 30, three TMI workers received radiation doses of about 3 to 4 rems; these levels exceeded the NRC maximum permissible quarterly dose of 3 rems.
- d. The process of recovery and cleanup presents additional sources of possible radiation exposure to the workers and the general population.
- 2. There were deficiencies in instrumentation for measuring the radioactivity released, particularly during the early stages of the accident. However, these deficiencies did not affect the Commission staff's ability to estimate the radiation doses or health effects resulting from the accident.

COMMISSION FINDINGS

- 3. The health effects of radiation dose levels of a few rems or less are not known. Estimates of the potential health effects of the TMI accident are based on extrapolations from the known health effects of higher levels of radiation.
- 4. The major health effect of the accident appears to have been on the mental health of the people living in the region of Three Mile Island and of the workers at TMI. There was immediate, short-lived mental distress produced by the accident among certain groups of the general population living within 20 miles of TMI. The highest levels of distress were found among adults a) living within 5 miles of TMI, or b) with preschool children; and among teenagers a) living within 5 miles of TMI, b) with preschool siblings, or c) whose families left the area. Workers at TMI experienced more distress than workers at another plant studied for comparison purposes. This distress was higher among the nonsupervisory employees and continued in the months following the accident.