



OFFICE OF THE  
CHAIRMAN

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

July 5, 1979

The Honorable Charles B. Rangel  
United States House of Representatives  
Washington, D.C. 20515

Dear Congressman Rangel:

I regret that I was unable to answer your mailgram of April 2, 1979, directly during or immediately after the accident at the Three Mile Island nuclear power plant. However, during this period, NRC representatives from the Office of State Programs, operating out of the Emergency Operations Center in Bethesda, were in close contact with the New York State Health Department, Bureau of Radiological Health. It was their responsibility to supply all pertinent information related to this accident to officials of the Bureau of Radiological Health of the State of New York.

For your information, we are providing the following data on radiation levels measured at various distances prior to the March 28 accident as well as subsequent to it and the potential health hazard posed by those levels.

Prior to the March 28 accident the normal background level in all directions from the site ranged from approximately 0.01-0.02 milliroentgens/hour. In the time frame immediately following the accident, the measured radiation levels were substantially higher with the highest readings being measured near the site boundary.

At the time of the accident, Metropolitan Edison had 20 thermoluminescent dosimeters (TLDs) deployed at various distances from the site (out to approximately 15 miles). These TLDs measure the integrated dose over a period of time. The TLDs were collected and replaced with new TLDs approximately 30 hours after the accident. Analysis of the TLDs indicated that the average dose rate in the environs (as measured by the TLDs) during the thirty hours immediately after the incident was generally in the range of 0.1-0.2 milliroentgens/hour above background. Two locations on uninhabited islands near the site indicated a significantly higher dose rate. The two islands and doses were Shelley Island (1.1 miles SSW of site), 1.3 milliroentgens/hour and Kohn Island (0.4 miles NNW of site), 25 milliroentgens/hour. During the period March 29-31, analysis of the results from the same TLD locations indicated that the dose rate was generally in the range of 0.02-0.2 milliroentgen/hour. The highest reading was 0.8 milliroentgen/hour 1/2 mile ENE of the site.

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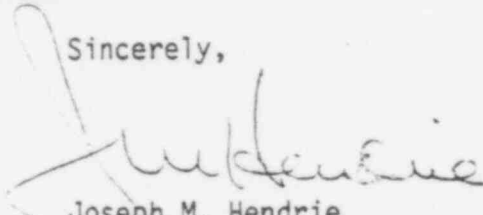
Analysis of the 37 TLDs deployed by the NRC out to 12 miles from the site indicated that most of the average dose rates on March 31-April 1 ranged from 0.01-0.05 milliroentgens/hour with the highest average dose rate of 1.4 milliroentgens/hour approximately 1/2 mile ENE of the site. During the next week the average dose rates were on a generally downward trend and by April 8, they were at normal background levels.

Based on the foregoing radiation measurements, no significant health hazard is expected to result.

Predictions of radiation dispersion patterns are not expected to be influenced by explosion or meltdown (quantities of materials released would be affected). The attached document "Population Dose and Health Impact of the Accident at the Three Mile Island Nuclear Station", NUREG-0558, gives detailed information on dispersal of radioactive materials and radiation doses to the population around the TMI site.

I hope the above information will be helpful to you. If you need further information, please let me know.

Sincerely,



Joseph M. Hendrie  
Chairman

Attachment:  
NUREG-0558

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