

REGULATORY INFORMATION COPY

Docket No. 50-320

JAN 13 1981

Dr. Frank Parker  
School of Engineering  
Vanderbilt University  
Nashville, Tennessee 37203

Dear Dr. Parker:

This letter is in response to your letter of January 3, 1981 in which you request additional information to aid the NCRP Task Group SC-38 on Disposal of Accident Generated Waste Water in the NCRP evaluation of the disposition of processed TMI-2 accident generated waste water. The requested information is provided herein. I apologize for the tardiness of this submittal. I realize that the Task Group has been given an extremely difficult task and I appreciate the Task Group efforts to provide an evaluation in a time frame consistent with the preparation of our Final Programmatic Environmental Impact Statement Related to Decontamination and Disposal of Radioactive Wastes Resulting from March 28, 1979 Accident, Three Mile Island Nuclear Station, Unit 2.

Enclosure 1 is the ORIGEN code listing of the radionuclide distribution and curie inventory in the core at the time of the TMI-2 accident on March 28, 1979, and at various time intervals thereafter through 3,750 days of decay.

Enclosure 2 is a letter dated September 28, 1979, from Harold Denton, Director, Office of Nuclear Reactor Regulation, to Vincent Johnson, Director, Technical Staff, President's Commission on the Accident at Three Mile Island, which discusses the fate of various radionuclides (iodines, noble gases) during the TMI-2 accident.

Enclosure 3 is Section 5.4, RADIOLOGICAL IMPACTS, of the Final Supplement to the Final Environmental Statement Related to Operation of Three Mile Island Nuclear Station, Unit 2 (NUREG-0112), dated December 1976.

Enclosure 4 is Section 2.3, METEOROLOGY, of the Final Safety Analysis Report for Three Mile Island Nuclear Station-Unit 2, dated April 4, 1974.

Enclosure 5 is the projected population distribution around the Three Mile Island Nuclear Station to a distance of 50 miles for the years 1980, 1990, 2000 and 2010.

Enclosure 6 is a listing of the on-site meteorological data for the years 1972 through 1977 (mid-year) and updates the meteorological data contained in Enclosure 4.

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Dr. Frank Parker

-2-

Enclosure 7 is an internal NRC staff memorandum which discusses the parameters and factors assumed in the evaluation of the environmental impact of evaporating tritiated water from an onsite holding pond. Note that the meteorological dispersion factors used in the staff analysis are based on the updated on-site meteorological data for the years 1972-1975 (see Enclosure 6).

Enclosure 8 is a draft Appendix for the final Programmatic Environmental Impact Statement which describes the staff's calculational models and parameters used in estimating maximum individual and population doses resulting from releases of radioactive materials in liquid and gaseous effluents to unrestricted areas from cleanup activities at the TMI-2 plant.

Enclosure 9 is Section 2.4, HYDROLOGIC ENGINEERING, of the Final Safety Analysis Report for Three Mile Island Nuclear Station-Unit 2, dated April 4, 1974.

If you have any questions regarding the information contained in the above enclosures, or desire to talk with staff specialists in meteorology, hydrology or dose assessment, please contact Rick Weller (301-492-8174) of my staff.

Sincerely,

Bernard J. Snyder, Program Director  
TMI Program Office  
Office of Nuclear Reactor Regulation

Enclosures:

1. ORIGEN code listing of radionuclide distribution and curie inventory for TMI-2 accident.
2. Letter, dated September 28, 1979, from H. Denton, Director, Office of Nuclear Reactor Regulation, to V. Johnson, Director, Technical Staff, President's Commission on the Accident at Three Mile Island.
3. Section 5.4, RADIOLOGICAL IMPACTS, of the Final Supplement to the Final Environmental Statement Related to Operation of Three Mile Island Nuclear Station, Unit 2 (NUREG-0112), dated December 1976.
4. Section 2.3, METEOROLOGY, of the Final Safety Analysis Report for Three Mile Island Nuclear Station-Unit 2, dated April 4, 1974.
5. Projected population distribution around the Three Mile Island Nuclear Station to a distance of 50 miles for the years 1980, 1990, 2000, and 2010.
6. On-site meteorological data for the years 1972 through 1977 (mid year).
7. NRC Staff Memorandum, dated February 13, 1980, from E. Markee (Meteorology Section) to F. Condel (Radiological Impact Section)

Enclosures: (Continued)

- 8. Draft Appendix X, CALCULATION MODELS, AND PARAMETERS USED IN ESTIMATING DOSES AND INTERPRETATION OF MODEL RESULTS, for inclusion in the staff's Final Programmatic Environmental Impact Statement Related to Decontamination and Disposal of Radioactive Wastes Resulting from March 28, 1979 Accident, Three Mile Island Nuclear Station, Unit 2.
- 9. Section 2.4, HYDROLOGIC ENGINEERING, of the Final Safety Analysis Report for Three Mile Island Nuclear Station, Unit 2, dated April 4, 1974.

CC w/encl:  
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