July 29, 1985
NRC/TMI-35-054

MEMORANDUM FOR: Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Bernard J. Snyder, Program Director
TMI Program Office

FROM: William D. Travers, Deputy Program Director
TMI Program Office

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT FOR
JULY 22, 1985 - JULY 28, 1985

1. PLANT STATUS

- The facility remains in long term cold shutdown with the Reactor
  Coolant System (RCS) vented to the reactor building atmosphere and
  the reactor vessel head and plenum assembly removed.
- The reactor vessel plenum has been removed from the reactor vessel
  and placed on its storage stand in the deep end of the fuel transfer
  canal. A dam has been installed between the deep and shallow ends
  of the fuel transfer canal. The deep end is filled with water to a
  depth of about 20 feet (about 5 feet above the top of the plenum).
- The modified internals indexing fixture is installed on the reactor
  vessel flange and is flooded to elevation 327 feet 6 inches (15½
  feet above the top of the core region).
- Calculated reactor decay heat is less than 12 kilowatts.
- RCS cooling is by natural heat loss to the reactor building ambient
  atmosphere. Incore thermocouple readings range from 71°F to 91°F
  with an average of 81°F. Average cold leg temperature is 58°F.
- The average reactor building temperature is 59°F. The reactor
  building airborne activity is 7.4 E-9 uCi/cc Tritium 4.1 E-10 uCi/cc
  particulate, predominantly Cesium 137.

2. WASTE MANAGEMENT

- The Submerged Demineralizer System (SDS) processed batch S123
  consisting of 50,028 gallons from the "C" reactor coolant bleed
  tank. EPICOR II completed processing batch 264 consisting of 10,831
  gallons from SDS tank 18.
- Total volume processed through SDS to date is 2,963,375 gallons, and
  the total volume processed through EPICOR II is 2,547,671 gallons.
3. DOSE REDUCTION/DECONTAMINATION ACTIVITIES

- Decontamination activities are continuing on the 281' level of the Auxiliary Building.
- Average general area radiation dose rate is 36 mrem per hour on the 347' level of the reactor building and is 160 mrem per hour on the 305' level of the reactor building.

4. ENVIRONMENTAL MONITORING

- EPA sample analysis results show THI site liquid effluents to be in accordance with regulatory limits, NRC requirements, and the City of Lancaster Agreement.
- THI water samples taken by the US Environmental Protection Agency at the plant discharge to the river consisted of seven daily composite samples taken from July 6, to July 13, 1985. Gamma scans detected no reactor related radioactivity for the July 6 through 12 samples. The July 13 gamma scan result was 3 E-9 uCi/cc.
- The Lancaster water samples taken at the water works intake and analyzed by the US Environmental Protection Agency consisted of seven day composite samples taken from July 14 to July 28, 1985. A gamma scan detected no reactor related radioactivity.
- The NRC outdoor airborne particulate sampler at the THI Site collected a sample between July 18, and July 25, 1985. No reactor related radioactivity was detected. Analysis showed I-131 and Cs-137 concentrations to be less than the lower limits of detectability.

5. REACTOR BUILDING ACTIVITIES

Additional characterization of the reactor vessel lower head was performed during the week of July 21, 1985. Inspection of an area in the last quadrant to be characterized (North side of vessel) indicated that the rubble bed is somewhat more shallow in this area than at points inspected in the other three quadrants. Because of the shallowness, samples were not obtained at this location. A water jet directed at the debris cratered the debris bed. This activity as well as probing of the bed indicates that this portion of the bed may consist of non-agglomerated rubble. Also, radiation level measurements of debris bed samples taken from a location at the X axis (West side of vessel) indicate that the material sample contains a much smaller concentration of radioactive material than expected.

Substantial progress on assembling the rotating defueling platform in the reactor building was made during the week.
6. **AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES**

- Installation of the DMCS continued. Partial DMCS turnover for processing RCS during early defueling is scheduled to be completed in late August.
- The first fuel canister rack is on site with further deliveries scheduled through August.

7. **NRC EVALUATIONS IN PROGRESS**

- Defueling Water Cleanup System Technical Evaluation (including Revision 6)
- Technical Specification Change Requests numbers 46, 48, 49, and 50
- Recovery Operations Plan Change numbers 27, 29, 31, and 32
- Fuel Canister Technical Evaluation
- Fuel Handling Senior Reactor Operator Training Program
- Defueling Safety Evaluation
- Application for seismic exemption
- The NRC Vendor Programs Branch performed an inspection at the Nuclear Energy Services (NES) facility in Greensboro, North Carolina, where the fuel storage canisters, fuel storage racks, and fuel canister transfer shields are being fabricated. The inspection examined construction activities and included a review of the implementation of the quality assurance program at NES. The inspection findings are undergoing NRC management review and the final inspection report will be issued next week.

8. **PROJECTED SCHEDULE OF FUTURE EVENTS**

- Start of Defueling: October 1985

9. **PUBLIC MEETING**

The next meeting of the Advisory Panel for the Decontamination of Three Mile Island Unit 2 is scheduled for September 1985 at a location in Annapolis, Maryland, the specific date and location will be identified later.

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William D. Travers  
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THI Program Office