

January 6, 1986  
 NRC/TMI-86-003

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

Frank J. Miraglia, Director  
 Division of PWR Licensing-B

FROM: William D. Travers, Director  
 TMI-2 Cleanup Project Directorate

SUBJECT: NRC TMI-2 CLEANUP PROJECT DIRECTORATE WEEKLY STATUS  
 REPORT FOR DECEMBER 23, 1985 - DECEMBER 29, 1985 AND  
 DECEMBER 30, 1985 - JANUARY 5, 1986

1. DEFUELING

- The licensee completed loading one side loading debris bucket with pieces of fuel rods. The bucket containing about 30 lbs. of debris was placed in a fuel canister. Currently two defueling canisters are fully loaded and two are partially loaded.
- The licensee completed the installation and testing of the debris vacuum system during the week of December 23, 1985. The system uses an air driven submerged pump to pick up a slurry of fuel debris and water. Debris ranging from about 140 microns up to fuel pellet size are collected in a knockout canister and smaller particles ranging in size down to 0.5 microns are removed from the effluent fluid stream by filter canisters. The knockout and filter canisters serve as the storage and shipping containers for the debris.
- The licensee began vacuum defueling on December 31, 1985. About 300 lbs. of debris has been loaded into the knockout canister which has a capacity of about 1,800 lbs. The licensee is working to improve the debris pick up rate of 1 to 2 lbs. per minute that has been achieved so far.

2. 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 from the reactor vessel.
- The plenum is 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).

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- The modified internals indexing fixture is installed on the reactor vessel flange and is flooded to elevation 327 feet 6 inches (15 1/2 feet above the top of the core region). The defueling platform is installed over the internals indexing fixture.
- 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 68°F to 95°F with an average of 82°F.
- The average reactor building temperature is 60°F. The reactor building airborne activity at the Westinghouse platform is 1.1 E-8 uCi/cc Tritium and 1.6 E-10 uCi/cc particulate, predominantly Cesium 137.
- Spent Fuel Pool "A" is flooded to a depth of 20 feet. About 6 feet of water is over the fuel canister storage racks.

3. WASTE MANAGEMENT

- EPICOR II completed processing Batch 271 which consisted of recirculation of water from CC-T-2 for particulate removal. The total processing volume was about 60,000 gallons. Batch 272 and 273 were completed for a total of about 15,000 gallons from the Submerged Demineralizer System (SDS) monitor tanks.
- SDS is temporarily shutdown.
- Total volume processed through SDS to date is 3,598,397 gallons, and the total volume processed through EPICOR II is 2,776,536 gallons.

4. DOSE REDUCTION/DECONTAMINATION ACTIVITIES

- Decontamination activities are continuing on the 281' level of the auxiliary building. Kelly-vac cleaning of the decay heat vaults is in progress.
- Average general area radiation dose rate is 40 mrem per hour on the 347' level of the reactor building and is 67 mrem per hour on the 305' level of the reactor building.
- Decontamination of the "A" D-ring is complete.

5. ENVIRONMENTAL MONITORING

- US Environmental Protection Agency (EPA) sample analysis results show TMI site liquid effluents to be in accordance with regulatory limits, NRC requirements, and the City of Lancaster Agreement.
- TMI water samples taken by EPA at the plant discharge to the river consisted of seven daily composite samples taken from December 8 through December 14, 1985 and from December 15 through December 21, 1985. A gamma scan detected no reactor related activity.
- The Lancaster water sample taken at the water works intake and analyzed by EPA consisted of a seven day composited sample taken from December 8 through December 14, 1985 and from December 15 through December 21, 1985. A gamma scan detected no reactor related radioactivity.

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- The NRC outdoor airborne particulate sampler at the TMI site collected a sample between December 18 and December 26, 1985 and between December 26, 1985 and January 2, 1986. No reactor related radioactivity was detected. Analysis showed Iodine-131 and Cesium-137 concentrations to be less than the lower limits of detectability.

6. REACTOR BUILDING ACTIVITIES

- Initial vacuum defueling of the reactor core is in progress.
- The pressurizer manway cover has been removed and the access port shielded. Sludge samples have been removed from the pressurizer and further examination is in progress.

7. AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES

- Installation of the balance of DHCS continued.
- Spent Fuel Pool "A" has been flooded to a depth of about 20 feet (about 6 feet above the top of the fuel canister storage racks).

8. NRC EVALUATIONS IN PROGRESS

- Technical Specification Change Request number 49.
- Recovery Operations Plan Change number 31.
- SDS Technical Evaluation and System Description Update.
- Core Stratification Sample Safety Evaluation.
- Defueling Water Cleanup System Technical Evaluation Report, Revision 7.
- Containment Air Control Envelope Technical Evaluation Report, Revision 5.
- Solid Waste Facility Technical Evaluation Report.

9. PUBLIC MEETINGS

The next meeting of the Advisory Panel is scheduled for February 12, 1986 at the Holiday Inn, 23 South Second Street, Harrisburg, PA from 7:00 PM to 10:00 PM.

Persons desiring the opportunity to speak before the panel are asked to contact Mr. Thomas Smithgall at 717-291-1042 or write to him at 2122 Marietta Avenue, Lancaster, Pennsylvania 17603.

**ORIGINAL SIGNED BY:**  
William D. Travers

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Harold R. Denton  
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