

March 10, 1986  
NRC/TMI-86-023

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 MARCH 3 - MARCH 9, 1986

1. DEFUELING

- As of March 10, 1986, 21 defueling canisters have been transferred from the reactor vessel to the spent fuel pool storage racks. Total weight of fuel debris and structural material transferred out of the reactor vessel is about 18,960 lbs. The estimated total weight of fuel debris and structural materials originally in the reactor vessel after the accident was 300,000 lbs.
- Defueling by pick-and-place with a spade-bucket tool continued.
- Visibility in the reactor vessel continues to be poor because of biologic growths. The organic growth in the RCS has progressed to the point where a self-sustaining community exists. The growths vary from algae in suspension through fungi and bacteria to aerobic and anaerobic organisms in the lower vessel. The licensee continues to study the problem with the assistance of outside experts in the field. A long term treatment plan is not expected for several weeks.

2. PLANT STATUS

- The reactor remains in long term cold shutdown, vented to atmosphere.
- The reactor vessel head is in storage on the 347' elevation. The plenum is on its storage stand in the deep end of the fuel transfer canal. A dam is installed between the deep and shallow ends of the transfer canal, permitting a 20 foot depth (about 5 feet over the top of the plenum).

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- Reactor Coolant System (RCS) cooling is by natural heat loss to the reactor building atmosphere. Calculated reactor decay heat is 10.7 kilowatts. Incore thermocouple readings range from 72°F to 95°F, averaging 83°F.
- The average reactor building temperature is 55°F. The reactor building airborne activity at the defueling platform is 9.5 E-8 uCi/cc Tritium and 5.4 E-11 UCI/cc particulates, predominately Cesium-137.
- The reactor vessel and modified internals indexing fixture are flooded to the 327'6" elevation which is 15½ feet above the core region top. The defueling platform is mounted above the internals indexing fixture.

### 3. WASTE MANAGEMENT

- The Submerged Demineralizer System (SDS) completed processing batch 127, Fuel Transfer Canal Recycle through both trains. (202,658 gallons)
- SDS commenced processing batch 128, neutralizer tanks through train number 2.
- EPICOR II remained shutdown.
- Total volume processed through SDS to date is 3,812,680 gallons, and the total volume processed through EPICOR II is 2,822,963 gallons.

### 4. 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 February 15 through February 22, 1986. 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 February 16 through February 22, 1986. A gamma scan detected no reactor related radioactivity.
- The NRC outdoor airborne particulate sampler at the TMI site collected a sample between February 26, and March 5, 1986. No reactor related radioactivity was detected. Analysis showed Iodine-131 and Cesium-137 concentrations to be less than the lower limits of detectability.

### 5. REACTOR BUILDING ACTIVITIES

- Initial defueling of the reactor core is in progress.

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6. AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES

- Installation of the balance of Defueling Water Cleanup System (DWCS) continued.
- Preparations are being made for decontamination in the Seal Injection Room, 281' auxiliary building.
- Kelly vacuuming of the 281' elevation fuel handling building continued.
- Startup testing of the canister dewatering system has stopped and system responsibility returned to engineering.

7. 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.
- Reactor Building Sump Criticality Safety Evaluation Report.
- TMI-2 Temporary Reactor Vessel Filtration System Safety Evaluation Report, Revision 1.

Original signed by  
Lee Thonus for:  
William D. Travere  
Director  
TMI-2 Cleanup Project Directorate

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Harold R. Denton  
Frank J. Miraglia

4

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