

December 2, 1985
NRC/TMI-85-096

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 NOVEMBER 25, 1985 - DECEMBER 1, 1985

1. DEFUELING

The changeout of hydraulic fluid in the defueling tools hydraulic system was completed on November 25. The new type of borated hydraulic fluid should alleviate the boron precipitation problem experienced during the previous week. Defueling operations resumed on November 25 and 26th. The licensee had continued success in cutting substantial quantities of broken and tangled fuel rods with a hydraulic shear tool. The cutting is going to continue next week prior to loading the debris into defueling canisters.

On November 25, the licensee determined that respirators for this phase of defueling operations would no longer be necessary. This determination was made after air sample analyses and radiation surveys of nearly one month of defueling entries. In general, airborne particulate composite concentration at the defueling work platform has been less than one-tenth of the Maximum Permissible Concentration. The removal of respirator requirements is expected to increase work efficiency and should result in overall occupational exposure reduction.

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).
- The modified internals indexing fixture is installed on the reactor

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- 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 Internal Indexing Fixture for defueling.
- 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 73°F to 95°F with an average of 83°F.
- The average reactor building temperature is 57.5°F. The reactor building airborne activity at the Westinghouse platform is 2.7 E-8 uCi/cc Tritium and 1.2 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 fuel canister storage racks.

3. WASTE MANAGEMENT

- After approval of the procedure, the filters on the Defueling Water Cleanup System (DWCS) were backwashed. Both trains of the reactor vessel filtration portions of DWCS will be started to determine the success of the backwash in reducing the filter differential pressure.
- Submerged Demineralizer System (SDS) processing of batch 126 was completed, Fuel Transfer Canal recycle through both Trains and "B" cation sand filter. A total of 406,435 gallons was processed in batch 126.
- The Spent Fuel Pool (SFP) and Fuel Transfer Canal experienced an algae bloom after the filling of the Spent Fuel Pool. A swimming pool filter has been used to reduce turbidity. Studies have indicated that the bloom was due to euglena present in the Spent Fuel Pool before filling. A kill of the euglena is planned by addition of hydrogen peroxide to SFP to a concentration of 300 ppm.
- EPICOR II is temporarily shutdown while changing out liners.
- Total volume processed through SDS to date is 3,598,397 gallons, and the total volume processed through EPICOR II is 2,700,737 gallons.

4. DOSE REDUCTION/DECONTAMINATION ACTIVITIES

- Decontamination activities are continuing on the 281' level of the auxiliary building. Scabbling of reactor coolant bleed tank cubicles 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 pressurizer and "A" D-ring is in progress.

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.

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- TMI water samples taken by EPA at the plant discharge to the river consisted of seven daily composite samples taken from November 9 through November 16, 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 November 10 through November 16, 1985. A gamma scan detected no reactor related radioactivity.
- The NRC outdoor airborne particulate sampler at the TMI Site collected a sample between November 20 and November 27, 1985. 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

- Concrete Core samples were obtained from interior basement walls at two feet and eight feet from the basement floor (281 foot elevation) by a Robot-like vehicle. These samples will be used to characterize the contamination of basement walls. The information will be used to plan decontamination activities of the basement walls.
- The initial phase of defueling the reactor core is in progress.
- Installation of the vacuum defueling system is in progress.

7. AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES

- Installation of the balance DWCS continued.
- Spent Fuel Pool 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 MEETING

The next meeting of the Advisory Panel is scheduled for December 12, 1985, at the Holiday Inn, 23 South Second Street, Harrisburg, PA, from 7:00 PM to 10:00 PM.

At that meeting GPUN will provide a status of defueling activities and Mr. and Mrs. Aamodt will provide information regarding their health effects evaluations.

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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

William D. Travers
Director
TMI-2 Cleanup Project Directorate

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