

December 23, 1985  
NRC/THI-85-100

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  
THI-2 Cleanup Project Directorate

SUBJECT: NRC THI-2 CLEANUP PROJECT DIRECTORATE WEEKLY STATUS  
REPORT FOR DECEMBER 16, 1985 - DECEMBER 22, 1985

NOTE: Due to the Christmas Holiday, the next status report will be issued on January 6, 1986, covering the period December 23, 1985 to January 5, 1986.

1. DEFUELING

- Licensee's corrective actions to prevent recurrence of the dropped canister and canister positioning system sleeve (reported in Weekly Status Report dated December 16, 1985) includes procedural changes that will require verification of engagement of the sleeve locking mechanism by close video examination. In addition, the procedures will require use of a load cell during crane operations having the potential to exert an unplanned excessive lifting force.
- On December 17, 1985, the licensee successfully freed the stuck end-fitting and long handled tool from the canister that had been dropped the previous week. A video survey was performed on the inside of the canister. The lining of the canister's boral shroud does not appear to have suffered any major damage. Further review of the video tapes of the inspection will be done prior to continued loading of that canister.
- On December 19, 1985, operators began loading a debris bucket with pieces of broken fuel rods. The buckets will then be placed inside the canisters. Use of the buckets to fill the fuel canisters is expected to increase loading efficiency.
- Installation of the debris vacuum system is complete and startup and test is in progress. Testing of the system with actual core debris is expected to start the week of December 30, 1985.

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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 8 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 (15 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 10 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 59°F. The reactor building airborne activity at the Westinghouse platform is 5.3 E-8 uCi/cc Tritium and 2.2 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 the fuel canister storage racks.

3. WASTE MANAGEMENT

- The "A" train of the DWCS reactor vessel filtration system was operated at reduced flow intermittently as needed to maintain PCS clarity for defueling operations. The licensee is still studying the DWCS filter fouling problems and is planning to conduct tests to evaluate the use of filter precoat materials to alleviate the problem.
- Submerged Demineralizer System (SDS) is temporarily shutdown.
- EPICOR II began processing of Batch 271, which consists of about 3,900 gallons of water in CC-T-2 to be recycled through the system and returned to CC-T-2.
- Total volume processed through SDS to date is 3,598,397 gallons, and the total volume processed through EPICOR II is 2,704,515 gallons.

4. DOSE REDUCTION/DECONTAMINATION ACTIVITIES

- Decontamination activities are continuing on the 281' level of the auxiliary building. Scabbling and painting 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.

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- Decontamination of the "A" D-ring is in progress.
- Decontamination of the elevator pit and the underside of the elevator car was completed.

#### 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 November 30 through December 7, 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 1 through December 7, 1985. A gamma scan detected no reactor related radioactivity.
- The NRC outdoor airborne particulate sampler at the TMI site collected a sample between December 12 and December 18, 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

- The initial phase of defueling the reactor core is in progress.
- Installation of the vacuum defueling system is in progress.
- The pressurizer manway cover has been removed and the access port shielded. Examination of the pressurizer, which includes collection of sludge samples from inside is in progress.

#### 7. AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES

- Installation of the balance of DWCS 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.

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9. PUBLIC MEETINGS

The next meeting of the panel is scheduled for February 12, 1986 in the Harrisburg area from 7:00 p.m. to 10:00 p.m. at a place to be determined. Persons desiring the opportunity to speak before the panel are asked to contact Mr. Thomas Smitgall at 717-291-1042 or write to him at 2122 Marietta Avenue, Lancaster, Pennsylvania 17503.

ORIGINAL SIGNED BY  
William B. Travers

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Director  
TMI-2 Cleanup Project Directorate

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Harold R. Denton  
Frank J. Miraglia

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