

September 23, 1985
NRC/THI-85-073

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

Bernard J. Snyder, Program Director
THI Program Office

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

SUBJECT: NRC THI PROGRAM OFFICE WEEKLY STATUS REPORT FOR
SEPTEMBER 16, 1985 - SEPTEMBER 22, 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 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 vessel flange and is flooded to elevation 327 feet 6 inches (15½ feet above the top of the core region). The defueling platform is installed over the Internal Indexing Fixture in preparation 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 71°F to 89°F with an average of 79°F. Average cold leg temperature is 53°F.
- The average reactor building temperature is 56°F. The reactor building airborne activity is 3.5 E-7 uCi/cc Tritium and 8.9 E-10 uCi/cc particulate, predominantly Cesium 137.

2. WASTE MANAGEMENT

- The Submerged Demineralizer System (SDS) was shutdown during this period.
- EPICOR II commenced processing batch 266 from Condensate Tank 1A (COT-1A). To date 49,955 gallons from this batch have been processed.
- Total volume processed through SDS to date is 2,963,375 gallons, and the total volume processed through EPICOR II is 2,656,937 gallons.

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3. DOSE REDUCTION/DECONTAMINATION ACTIVITIES

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

4. NEW RIVER WATER SAMPLING POINT

- Since July 19, 1985, the EPA has sampled the Susquehanna River water prior to the water entering TMI. A one gallon sample is taken over 24 hours by a metering pump at the inlet to the Unit 1 water pre-treatment system. This one gallon sample is collected daily and analyzed. A portion is composited with like quantities from the other six days of the week. The sample will be used to verify the source of activity in the TMI site outfall water samples. In the past some radionuclides in the river water taken into the plant have caused concern until the source was determined not to be TMI but due to an upstream medical administration.

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 intake from the river consisted of seven daily composite samples taken from August 31 to September 7, 1985. The gamma scan for the seven day composite was negative. Daily composites for two samples taken between September 2 and 3 and September 5 and 6, 1985 detected a trace of Iodine-131.
- TMI water samples taken by EPA at the plant discharge to the river consisted of seven daily composite samples taken from August 31 to September 7, 1985. Two 24 hour composite samples, one taken between September 2 and 3, 1985 and the other taken between September 5 and 6, 1985 each detected a trace of Iodine-131. Essentially the same concentration of Iodine-131 was detected by the upstream sampler. This indicates that the Iodine-131 was taken into the plant from the river and the plant was not the source. No reactor related activity was detected. The detected concentration of Iodine-131 was less than 1% of the NRC allowable limit for release to unrestricted areas.
- The Lancaster water sample taken at the water works intake and analyzed by EPA consisted of a seven day composite sample taken from September 1 to September 7, 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 September 4 and September 11, 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

- Defueling Water Cleanup System (DWCS) preoperational testing and modification continued.
- Installation of cable tray shielding continued.
- Preoperational testing of the reactor building sump recirculation system components is in progress. The system is expected to be operable this week.
- Work is in progress on the canister positioning system and canister handling bridge.

7. AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES

- Installation of the DWCS continued. Partial DWCS turnover for processing RCS during early defueling is expected to be completed in October.
- All four of the fuel canister storage racks have been delivered to the TMI site and inspected. Critical welds and those welds which would have engaged the dunnage during shipping were examined on the fourth canister storage rack to be delivered onsite. Penetrant testing (PT) was used for examination of the welds and revealed eight welds with identifiable defects. However, some of these defects would have been discernible through visual examination. GPU performed a visual examination of all welds on the fourth rack delivered. This examination revealed about 50 linear indications. Subsequent PT of about 10% of these linear indications did not reveal any PT indications of cracking or any other deleterious effects in the welds. The eight positive indications were ground in such a manner as to fully expose the defect.

The first rack delivered onsite was layed on its side and internal welding was visually examined by an inspector crawling inside the affected modular cells. Two visual indications were noted but subsequent PT examination revealed that the indications were not significant.

The third rack which has not shown any indications of questionable welds is being prepared for installation in the "A" spent fuel pool. The installation is tentatively scheduled for the week of September 23, 1985.

Further examinations and evaluations are being performed. A completion date to affect repairs has not been determined.

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8. NRC EVALUATIONS IN PROGRESS

- Technical Specification Change Requests numbers 48, 49, and 50.
- Recovery Operations Plan Change numbers 29, 31, and 32.
- Fuel Canister Technical Evaluation, Revision 1.
- Defueling Safety Evaluation.
- Application for seismic exemption.
- SDS Technical Evaluation and System Description Update.
- Core Stratification Sample Safety Evaluation.
- Heavy Load Handling Safety Evaluation Report.

9. PUBLIC MEETING

The next meeting of the Advisory Panel is scheduled for October 1985 in Harrisburg, Pennsylvania. Exact date and location for this meeting will be announced at a later date.

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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TMI Program Office

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Harold R. Denton
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