

March 31, 1986
NRC/TMI-86-030

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 24 - MARCH 30, 1986

1. DEFUELING

- As of March 30, 1986, 34 debris canisters have been transferred from the reactor vessel to pre-shipment storage with a total net weight of 38,930 lbs.
- The program for resolution of the biologic growth in the Reactor Coolant System (RCS) continues. Since the beginning of testing, 10 biocides have been examined and discounted. Of the nine biocides under active consideration, only methanol and hydrogen peroxide are relatively non-toxic. The other seven include such toxic chemicals as sodium cyanide and sodium azide. The physical methods tested indicate the organisms are relatively immune to ultraviolet light sterilization. Heating to nearly 180°F has also proven to be unsuccessful, although some kill is seen. Testing of elevated pressures shows some promise. Pressure induced by high-pressure pumps (one at 50,000 psig and one at 15,000 psig) with low volumes has been demonstrated. Further testing is in progress. A large volume (10,000 gallons) medium pressure (600 psig) system using the core flood tanks is also under study.
- The Temporary Reactor Vessel Filtration System, a swimming pool type (diatomaceous earth) filter, continues to be used for RCS filtering. Additional swimming pool filter capacity, pending resolution of the biologic growth problem, is being planned. Approximately 50,000 gallons of RCS processed thru the swimming pool filter system yields 6 curies of Sr-90 and less than 1 curie each of Cs-137 and Sb-125.

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2. REACTOR BUILDING ACTIVITIES

- The examinations of the upper head spaces in the steam generators show some material about 3/4 inch in size in the head space of the A generator and materials about 1 to 1/4 inch in size scattered about the head space of the B generator. Fiber optic viewing in the bottom of the A generator shows filament growth similar to that in the reactor vessel.

3. PLANT STATUS

- The reactor remains in long term cold shutdown, vented to atmosphere. Core cooling is by natural heat loss to ambient building atmosphere. The average of the incore thermocouple readings is 81°F. The reactor coolant temperature is 73°F.
- The airborne radioactivity on the defueling platform is about 7.1 E-7 uCi/cc Tritium and 5.5 E-11 uCi/cc particulates, predominately Cesium-137. The platform is mounted above the modified internals indexing fixture which is mounted on the reactor vessel flange. These provide water coverage of 15 1/2 feet over the core region. This water level is about 5 feet over the top of any debris canisters in the reactor vessel.

4. WASTE MANAGEMENT

- The Submerged Demineralizer System (SDS) continued processing batch 130 from the "C" Reactor Coolant Bleed Tank (RCBT) to the monitor tanks then to the "A" RCBT. SDS total processed to date is 3,885,859 gallons.
- EPICOR II was in temporary shutdown this week. EPICOR II total processed to date is 2,354,371.

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 (includes TMI-1 and TMI-2) to the river consisted of seven daily composite samples taken from March 1 through March 8, 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 March 9 through March 15, 1986. A gamma scan detected no reactor related radioactivity.
- The NRC outdoor airborne particulate sampler at the TMI site collected a sample between March 20, and 26, 1986. No reactor related radioactivity was detected. Analysis showed Iodine-131 and

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Cesium-137 concentrations to be less than the lower limits of detectability.

6. AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES

- Installation of the balance of Defueling Water Cleanup System (DWCS) continued.
- Kelly vacuuming continues on the contaminated areas of the 281' elevation.
- Scabbling of the floor in the Neutralizer Tank Room was done this week.

7. NRC EVALUATIONS IN PROGRESS

- Technical Specification Change Request number 49, and 51.
- Recovery Operations Plan Change number 31, 33, 35, and 36.
- SDS Technical Evaluation and System Description Update.
- Core Stratification Safety Evaluation.
- 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.
- Underhead High Pressure Decon Safety Evaluation Report.
- Hydraulic Shredder Safety Evaluation Report.
- Canister Handling and Preparation for Shipment Safety Evaluation Report.
- Defueling Canister Technical Evaluation Report, Revision 2.

8. PUBLIC MEETING

The Citizen's Advisory Panel on the Decontamination of TMI-2 will meet April 10, 1986 at the Holiday Inn, 23 South Second Street, Harrisburg, PA from 7:00 p.m. to 10:00 p.m. At the meeting, the Panel will receive a report on the progress of defueling from GPUW. The Panel will also receive a report by the NRC staff on the status of recent TMI-2 enforcement actions. The NRC staff will also inform the Panel of ACRS (Advisory Committee on Reactor Safeguards) findings on the potential for TMI-2 recriticality during defueling.

Persons desiring to speak before the Advisory Panel are requested to contact Mr. Thomas Smithgall at 717-291-1042, or write him at 2122 Marietta Avenue, Lancaster, PA 17603.

ORIGINAL SIGNED BY:
William D. Travers

William D. Travers
Director
TMI-2 Cleanup Project Directorate

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