

April 21, 1986
NRC/TMI-86-037

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 APRIL 14 - April 20, 1986

1. DEFUELING

- As of April 20, 1986, a total of 44 defueling canisters have been loaded with fuel debris and transferred to the canister storage racks in the "A" Spent Fuel Pool in the Fuel Handling Building. The total weight of debris transferred out of the reactor vessel is 50,170 lbs. representing 16% of the 308,000 lbs. estimated to be in the vessel.
- On April 20, 1986, operation of the newly modified Temporary Reactor Vessel Filtration System (TRVFS) began. The modifications to the system consist of a larger diatomaceous earth filter media capacity, higher flow rates, and the use of a fuel debris knockout canister as a discharge vessel. The modified TRVFS is one subsystem of the new Reactor Vessel Water Cleanup System (RVWCS) designed to cleanse the reactor vessel water of bio-organism growths. The other subsystem includes a positive displacement pump which will destroy the bio-organisms by high pressure.
- A thorough inspection of the Vacuum Defueling System (VDS) was conducted. During the inspection, the connect assembly between the knockout canister and the pumping station was found to be damaged. Repair of the connect assembly consisted of replacement of the gripper subassembly which was found to be distorted. Completion of other minor maintenance including load cell and back flush flow meter repair is scheduled this week. A vacuum defueling test will be conducted after completion of all repairs and improvement in visibility in the reactor vessel.

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2. RAIL SHIPPING CASKS APPROVAL

On April 11, 1986, the NRC issued Certificate of Compliance Number 9200 to the Department of Energy (DOE). This Certificate approves the use of HUPAC-125B railcar mounted fuel debris shipping casks. DOE will use two of these casks to transport the TMI-2 core debris from the site to the Idaho National Engineering Laboratories for storage and research.

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 incore thermocouple reading is 79°F.
- The airborne radioactivity on the defueling platform is about 1.7 E-7 uCi/cc Tritium and 5.6 E-11 uCi/cc predominately Strontium-90. The platform is mounted above the modified internals indexing fixture which is mounted on the reactor vessel flange. These provide water coverage of 15½ 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) is shutdown. 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 2,954,371.

5. ENVIRONMENTAL MONITORING

- US Environmental Protection Agency (EPA) sample analysis results show that TMI site liquid effluents are 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 29 through April 5, 1986. A gamma scan detected no reactor related activity above the lower limit detectability. Trace indications of Cesium-137 may be present but are not in sufficient quantities to be quantified or clearly identified.
- The Lancaster water sample taken at the water works intake and analyzed by EPA consisted of a seven day composited sample taken from March 30 through April 5, 1986. A gamma scan detected no reactor related radioactivity.
- The NRC outdoor airborne particulate sampler at the TMI site collected a sample between April 10 - 17, 1986. No reactor related radioactivity was detected. Analysis showed Iodine-131 and Cesium-137 concentrations to be less than the lower limits of detectability.

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6. AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES

- Scabbling and painting of the floors in the neutralizer tank rooms were done this week.
- Scabbling was done in the reclaimed boric acid tank rooms.
- Steam cleaning was completed in the tendon access gallery.

7. NRC EVALUATIONS IN PROGRESS

- Technical Specification Change Request number 49, and 51.
- Recovery Operations Plan Change number 31, 33, 35, and 36.
- Core Stratification Safety Evaluation.
- Solid Waste Facility Technical Evaluation Report.
- Reactor Building Sump Criticality Safety Evaluation Report.
- Underhead High Pressure Decon Safety Evaluation Report.
- Canister Handling and Preparation for Shipment Safety Evaluation Report.
- Defueling Canister Technical Evaluation Report, Revision 2.
- Penetration 536 Modification Safety Evaluation Report

original signed by
Curt Cowgill for:

William D. Travers
Director
THI-2 Cleanup Project Directorate

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Harold R. Denton
Frank J. Miraglia

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