

November 30, 1987
NRC/TMI-87-083

MEMORANDUM FOR: Dennis M. Crutchfield, Director
Division of Reactor Projects - III, IV, V & Special Projects

FROM: William D. Travers, Director
TMI-2 Cleanup Project Directorate

SUBJECT: NRC TMI-2 CLEANUP PROJECT DIRECTORATE STATUS
REPORT FOR OCTOBER 26 - NOVEMBER 29, 1987

1. DEFUELING

- Defueling of the core region continued with pick and place techniques and vacuuming using the mini-air lift tool. Thus far, 175 of the 177 partial length fuel assemblies have been removed. About 193,000 lbs of a total of approximately 300,000 lbs of core debris and other materials have been removed.
- The two remaining partial length assemblies, R6 and R7, contain once molten, resolidified material. They are apparently fused to the lower grid, as an upward force of 19,000 lbs would not dislodge them. The end fittings on these assemblies deformed during removal attempts.
- Following removal of the remaining loose pins and vacuuming of loose debris on the lower grid, drilling of the lower core support assembly with the core bore machine is anticipated. The licensee will be submitting, for NRC review, a safety evaluation addressing the planned technique for sectioning and removing the lower core support assembly for defueling.

2. 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 effluents from the station (Units 1 and 2) discharge are analyzed by EPA. Gamma spectrum analyses of the daily composited samples for October 11 through November 14, 1987 showed no reactor related activity. Trace amounts of I-131 were found in the November 6 - 7 samples. However, comparable concentrations of I-131 were also found in the intake water samples indicating a source other than the plant.

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- EPA's gamma spectrum analysis of the NRC's TMI outdoor air samples for October 11 through November 25, 1987 showed no reactor related radioactivity.
- Daily water samples are taken at the City of Lancaster water works intake. These daily samples are composited and are analyzed by the EPA weekly. EPA's gamma spectrum analysis of composite samples for October 11 - 17, October 18 - 24, October 25 - 31, November 1 - 7, and November 8 - 14, 1987 showed no reactor related radioactivity.

3. DECONTAMINATION ACTIVITIES

- Phase III decontamination endpoints were reached in the Makeup and Purification Pump Room 1A, the Concentrated Waste Storage Tank Room, and the South Makeup Discharge Valve Room.
- Decontamination of the Seal Injection Valve Room (SIVR) has been resumed and about 100 sq. ft. of the floor area has been scabbled. The collected scabbling dust has been placed in high integrity containers for future disposal. Radiation dose rates range as high as 20 R/hr on the disposal containers. Dose rates in the SIVR have been reduced to about 15 R/hr gamma but range as high as 320 Rad/hr beta. Continued decontamination will further reduce these levels.
- Attempts during this month to remove the makeup and purification resin from the demineralizer vessels have been unsuccessful. Attempts to flush the resins appear to have confirmed that the flow paths are clear and that valves are operating as expected. The problem may be the result of agglomeration of the resin beads in the demineralizer vessels or the vessel discharge piping. The licensee will continue to pursue a solution to the problem.

4. WASTE MANAGEMENT

In late October 1987, a liner filled with solidified sludge from the auxiliary building sump was shipped to Barnwell, South Carolina for burial. The liner was inspected by the South Carolina Department of Health and Environmental Control. The inspection, which involved puncturing the lower part of the liner, found that the contents had not completely solidified. Rather than being a hard, concrete-like monolith, the material had a soft, putty-like texture. The solidification contractor believes that failure of the cement to cure is due to buildup of gas from reactions in organic material contained in the sludge, and that venting of the gas will allow complete curing to take place. The liner is presently being vented at the Barnwell facility to see if this will produce a cured product suitable for burial. In the interim, the State of South Carolina has prohibited shipment of similar material from TMI. Four similar liners are presently in storage at the TMI site awaiting shipment. The NRC staff will continue to follow this issue to assure acceptable resolution.

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5. NRC EVALUATIONS IN PROGRESS

- Technical Specification Change Requests 52, 53 and 56.
- Recovery Operations Plan Change Request 38.
- Solid Waste Facility Technical Evaluation Report.
- Processed Water Disposition Proposal.
- Safety Evaluation Report for Defueling of the Core Support Assembly.
- Environmental Evaluation of the Post-Defueling Monitored Storage Proposal.
- Canister Handling and Preparation for Shipment Safety Evaluation Report, Revision 4 and Revision 5.
- Defueling Water Cleanup System Technical Evaluation Report Annual Update.
- Defueling Canister Technical Evaluation Report Annual Update.
- Request for Exemption from 10 CFR 70.24 Requirements.

6. PUBLIC MEETING

- No date has been set for the next meeting of the Advisory Panel for the Decontamination of Three Mile Island Unit 2. The details of the next meeting will be announced.
- On November 3, 1987 the Atomic Safety and Licensing Board issued an order scheduling a pre-hearing conference related to the proceedings on disposition of the accident-generated water. The purpose of the conference, which will be open to the public, is to identify the key issues, take any necessary steps for further identification of the issues, make determinations as to the parties to the proceedings, and to establish a schedule for further actions in the proceedings. The conference will be at 8:30 AM on December 8, 1987. It will be held at the Holiday Inn, Center City, Governor's Suite, 10th Floor, 23 South Second Street, Harrisburg, Pennsylvania.

ORIGINAL SIGNED BY:
William D. Travers

William D. Travers
Director
TMI-2 Cleanup Project Directorate

OFFICE ▶

SURNAME ▶

DATE ▶

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