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September 13, 1982
NRC/TMI-82-056

50-289

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

Bernard J. Snyder, Program Director
TMI Program Office

FROM: Lake H. Barrett, Deputy Program Director
TMI Program Office

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of September 4 - 11, 1982.
Major items included in this report are:

- Liquid Effluents
- EPA and NRC Environmental Data
- Radioactive Material and Radwaste Shipments
- Submerged Demineralizer System Status
- EPICOR II
- Reactor Building Entries
- EPICOR II Prefilter Shipment
- Public Meetings

Original signed by
Lake H. Barrett

Lake H. Barrett
Deputy Program Director
TMI Program Office

Enclosure: As stated

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Harold R. Denton
Bernard J. Snyder

-2-

September 13, 1982

cc w/encl:
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DATE	9/5/82	9/13/82	9/13/82	9/13/82	9/17/82	9/15/82	

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

September 4, 1982 - September 11, 1982

Plant Status

Core Cooling Mode: Heat transfer from the reactor coolant system (RCS) to reactor building ambient.

Available Core Cooling Modes: Mini Decay Heat Removal (MDHR) system.

RCS Pressure Control Mode: RCS is vented to the reactor building.

Major Parameters (as of 0530, September 10, 1982) (approximate values)

Average Incore Thermocouples*: 121°F
Maximum Incore Thermocouple*: 139°F

RCS Loop Temperatures:

	A	B
Hot Leg**	101°F	99°F
Cold Leg (1)	80°F	81°F
(2)	82°F	82°F

Pressure: The reactor coolant system is vented to the reactor building.

Reactor Building: Temperature: 72°F

Pressure: -0.2 psig

Airborne Radionuclide Concentrations:

2.1 E-6 uCi/cc H³
(sample taken 9/10/82)

6.2 E-6 uCi/cc Kr⁸⁵
(sample taken 8/10/82)

2.5 E-9 uCi/cc particulates
(sample taken 9/10/82)

1. Effluent and Environmental (Radiological) Information

Liquid effluents from the TMI site released to the Susquehanna River after processing, were made within the regulatory limits and in accordance with NRC requirements and City of Lancaster Agreement dated February 27, 1980.

During the period September 3, 1982, through September 9, 1982, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained no detectable radioactivity.

*Uncertainties exist as to the exact location and accuracy of these readings.

**The primary water level is below the hot leg temperature sensors.

2. Environmental Protection Agency (EPA) Environmental Data

- The EPA Middletown Office has not received the environmental Kr-85 analytical results for the samples which were taken August 13, 1982 through August 27, 1982, from the EPA's Counting Laboratory at Las Vegas, Nevada. These results will be included in a subsequent report.
- No radiation above normally occurring background levels was detected in any of the samples collected from the EPA's air and gamma rate networks during the period from September 3, 1982, through September 9, 1982.

3. NRC Environmental Data

Results from NRC monitoring of the environment around the TMI site were as follows:

- The following are the NRC air sample analytical results for the onsite continuous air sampler:

<u>Sample</u>	<u>Period</u>	<u>I-131</u> <u>(uCi/cc)</u>	<u>Cs-137</u> <u>(uCi/cc)</u>
HP-335	September 1 - 8, 1982	<6.4 E-14	<6.4 E-14

4. Licensee Radioactive Material and Radwaste Shipments

- On September 7, 1982, 68 drums of Unit 1 and Unit 2 contaminated laundry were shipped to Interstate Laundry, New Kensington, Pennsylvania.
- On September 9, 1982, the Tri-State Mobile Laundry Decontamination Facility and Ventilation Unit in Unit 2 were returned to Utica, New York.
- On September 9, 1982, 20 LSA (Low Specific Activity) metal containers of Unit 1 and Unit 2 waste materials were shipped to U.S. Ecology, Richland, Washington.

Major Activities

1. Submerged Demineralizer System (SDS). The SDS system is presently shutdown; no new water is ready for processing. To date SDS has processed 35 batches (approximately 1,205,000 gallons) of contaminated water; 250,000 gallons of this total was Reactor Coolant System (RCS) water.
2. EPICOR II. The EPICOR II system is presently shutdown; no new water is ready for processing.

3. Reactor Building Entries. Reactor building entries were conducted on Wednesday, September 8, 1982 and Friday, September 10, 1982. The most labor intensive tasks conducted during the entries involved polar crane damage assessment and continued remote decontamination of the 282 ft. elevation.

The weekly primary system water sample was taken. A gas sample was collected from the center control rod drive mechanism (CRDM), to determine the composition and the generation rate of gases from the core.

The center CRDM had been isolated and inerted with nitrogen on September 3, 1982. A "Base Line" gas sample that was taken then indicated the following:

hydrogen	-	below detectable limits
nitrogen	-	95.5%
oxygen	-	4.3%

Gas sample measurements on September 8, 1982, indicated a gas generation rate of 0.06 cubic feet per day; the gas sample indicated the following:

hydrogen	-	6.3%
nitrogen	-	87.4%
oxygen	-	4.3%
other gases	-	2%

Gas samples in the primary system will continue to be taken, to determine their composition and gas generation rate.

Two reactor building entries are scheduled for the week of September 12, 1982.

4. EPICOR II Prefilter Shipment. Preparations are being completed for the shipment of a third (in a series of 49) EPICOR II prefilters to Idaho National Engineering Laboratory (INEL). On-site gas measurements and nitrogen inerting of this EPICOR II PF-2 waste liner have been completed. The initial gas sample indicated 4.5% hydrogen, 95% nitrogen and non-detectable (<0.5%) oxygen. The PF-2 liner, which contains approximately 1800 curies of mixed fission products, was inerted with nitrogen to reduce the hydrogen concentration to <0.2%. The hydrogen gas generation rate in PF-2 indicated an acceptable storage and shipment period in excess of 70 days. Because of shipping cask availability delays, PF-2 will continue to be stored in the solid waste storage facility (SWSF) and is scheduled for shipment October 5, 1982.

To expedite future shipments, the licensee is making preparation for sampling and inerting PF-6. The PF-6 liner, which contains approximately 170 curies of fission products, will be placed in an existing SN-1 type B shipping cask (designed to withstand transportation accidents) to determine if this relatively low curie liner can meet the DOT/NRC dose rate requirements. This demonstration is expected to be completed by the end of September 1982.

Future Meetings

1. On Friday, September 17, 1982, Lake Barrett will attend a meeting of the Susquehanna Valley Alliance with Mr. Demetrios Basdekas of the NRC's Office of Nuclear Regulatory Research.
2. On Tuesday, September 28, 1982, Lake H. Barrett will participate in a public meeting sponsored by the Hershey League of Women Voters to discuss TMI Unit 2 cleanup issues.