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December 13, 1982
NRC/TMI-82-075

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 December 5 through December 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 Status
- Reactor Building Entries
- SDS Liner Shipment Preparations
- 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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OFFICE	URNAME	DATE					

Harold R. Denton
Bernard J. Snyder

-2-

December 13, 1982

cc w/encl:

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DATE	12/13/82	12/13/82	12/13/82	12/13/82	12/13/82	12/13/82

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

December 5, 1982 - December 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 0400, December 10, 1982) (approximate values)

Average Incore Thermocouples*: 111°F

Maximum Incore Thermocouple*: 131°F

RCS Loop Temperatures:

	A	B
Hot Leg**	86°F	84°F
Cold Leg (1)	91°F	75°F
(2)	89°F	72°F

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

Reactor Building: Temperature: 69°F
Pressure: -0.98 psig
Airborne Radionuclide Concentrations:

1.1 E-6 uCi/cc H³
(sample taken 12/9/82)

9.1 E-9 uCi/cc particulates
(sample taken 12/10/82)

1. Effluent and Environmental (Radiological) Information

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

During the period December 3, 1982, through December 9, 1982, the effluents contained no detectable radioactivity at the discharge point although individual effluent sources which originated within Unit 2 contained minute amounts of radioactivity. Calculations indicate that less than one millionth (0.000001) of a curie of cesium was discharged.

*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 measures Kr-85 concentrations at several environmental monitoring stations and reported the following results:

<u>Location</u>	<u>November 12, 1982 - November 24, 1982</u> (pCi/m ³)
Goldsboro	26
Middletown	25
Yorkhaven	25
TMI Observation Center	27

- The EPA Middletown Office has not received the environmental Kr-85 results for the samples which were taken subsequent to November 24, 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 December 3, 1982 through December 9, 1982.

3. NRC Environmental Data

Results are from NRC monitoring of the environment around the TMI site.

- 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> (uCi/cc)	<u>Cs-137</u> (uCi/cc)
HP-347	December 2 - December 8, 1982	<8.2 E-14	<8.2 E-14

4. Licensee Radioactive Material and Radwaste Shipments

- On December 6, 1982, one box containing a one liter sample from the Unit 1 waste evaporator condensate storage tank was mailed to Radiation Management Corporation, Philadelphia, Pennsylvania.
- On December 6, 1982, 68 drums of contaminated laundry from Units 1 and 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.
- On December 6, 1982, one Unit 2 EPICOR II prefilter (PF-48) was shipped to the Idaho National Engineering Laboratory, Scoville, Idaho.
- On December 8, 1982, one Unit 1 100 millicurie Cs-137 sealed source (from a field calibration kit) was mailed to the Battelle Columbus Laboratory, Columbus, Ohio.

- On December 10, 1982, one box containing Unit 1 once through steam generator tube samples was shipped to Babcock and Wilcox, Lynchburg, Virginia.

Major Activities

1. Submerged Demineralizer System (SDS). SDS remained in a shutdown condition during the past week. The RCS feed and bleed process (which began December 1, 1982) was interrupted due to an inability to verify the water levels in the holdup tanks. Once the levels were confirmed, the feed and bleed process continued. However, it was stopped again when a surveillance test on the auxiliary building ventilation did not meet specified system performance. Water movements are not permitted until the ventilation system problem is corrected. This batch of approximately 40,000 gallons will be the sixth batch of RCS water to be processed; it is SDS batch no. 39.
2. EPICOR II. The EPICOR II system is presently in a shutdown condition.
3. Reactor Building Entries. Reactor building entries are continuing at the rate of four entries per week during the month of December. In addition to the on-going decontamination and polar crane refurbishment, considerable effort was expended this week in preparing the control rod drive system for eventual reactor vessel head removal. All eight axial-power-shaping-rod leadscrews were raised to their parked positions. (The parked position is in the upper portion of the control rod drive assembly; it ensures that the leadscrew is above the reactor vessel flange and clear of potential interference from internal components during reactor vessel head removal.)

An operation to verify that the 58 remaining safety control rod leadscrews are uncoupled is also being performed. After the uncoupling verification is complete, the control rod drive housings will be resealed in preparation for refilling the reactor (the primary side of the system) with water. The primary system will be refilled to support the chemical conditioning of the steam generators (on the secondary side of the system). To prevent boron dilution in the reactor vessel, the primary side water level will be maintained above the secondary side water level. It is expected that the secondary side chemical conditioning will be completed in four to six weeks. After chemical conditioning is complete, both steam generator secondary sides will be drained for long term lay-up. Following the steam generator lay-up, the primary system water level will be lowered to permit additional surveys and measurements under the reactor vessel head.

4. SDS Liner Shipment Preparations. The vacuum recombiner demonstration test on a spent SDS liner continued during this reporting period. After approximately four days of monitoring, the liner internal pressure has reached an equilibrium condition at 23" of mercury (vacuum). The liner, which is maintained under 20 feet of water in the spent fuel pool, has shown no weight increase during this monitoring period. The data indicate that sufficient catalyst capacity exists to recombine the

hydrogen and oxygen gas produced by water radiolysis in the liner. The licensee will continue to monitor the SDS liner conditions over 14 days (twice the expected shipment period) to ensure vacuum conditions are maintained and combustible gas mixtures are not generated. The shipment of the first recombiner loaded SDS liner has been rescheduled for the week of December 27, 1982.

5. EPICOR II Prefilter Shipment. One EPICOR II prefilter shipment was made from TMI to the Idaho National Engineering Laboratory (INEL) this week: PF-48, on December 6, 1982. Three prefilters are scheduled to be shipped to INEL next week: PF-6, PF-18 and PF-44.

Future Meetings

1. On January 17, 1983, Lake H. Barrett will meet with Friends and Family of TMI to discuss various TMI issues.
2. During the ASME Week activities January 17-20, 1983, in Sarasota, Florida, Ronald R. Bellamy will speak on TMI related issues.
3. On January 24, 1983, Lake H. Barrett will address the Harrisburg Rotary Club on various TMI issues.
4. On February 2, 1983, the Advisory Panel for the decontamination of TMI Unit 2 will hold a meeting from 7:00 to 10:00 PM at the Holiday Inn, 23 South Second Street, Harrisburg, Pennsylvania.