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October 4, 1982 NRC/TH1-82-061

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 THI Program Office

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of September 26 - October 2, 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 11 ----

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- Reactor Building Entries ---
- EPICOR II Prefilter Shipment Status ---
- Public Meetings ---

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Lake H. Barrett Deputy Program Director THI Program Office

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October 4, 1982

Harold R. Denton Bernard J. Snyder

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cc w/encl: EDO OGC **Office Directors** Commissioner's Technical Assistants NRR Division Directors NRR A/D's Regional Administrators IE Division Directors TAS EIS TMI Program Office Staff (15) PHS EPA DOE **RI Division Directors** Public Affairs, RI State Liaison, RI

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NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

September 26, 1982 - October 2, 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 0500, September 24, 1982) (approximate values) Average Incore Thermocouples*: 115°F Maximum Incore Thermocouple*: 133°F

RCS Loop Temperatures:

Hot Leg**	95°F	93°F
Cold Leg (1)	77°F	78°F
(2)	79°F	79°F

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

Reactor Building: Temperature: 72°F Pressure: -0.35 psig Airborne Radionuclide Concentrations:

5.0 E-6 uCi/cc H³
(sample taken 9/29/82)
3.4 E-10 uCi/cc particulates
(sample taken 10/1/82)
Kr⁸⁵ concentrations are below the
lower limit of detection (LLD):
6.2 E-6 uCi/cc

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.

During the period September 24, 1982, through September 30, 1982, the effluents contained no detectable radioactivity at the discharge point although individual effluent sources which originated within Unit 2 . contained small amounts of radioactivity. Calculations indicate that less than 0.00002 (two hundred thousandths) of a curie of tritium were 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

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

Location	August 27 - September 10, 1982
	(pCi/m ³)
Goldsboro	26
Observation Center	30
Middletown	26
Yorkhaven	26

- -- The EPA Middletown Office has not received the environmental Kr-85 for the samples which were taken subsequent to September 10, 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 23, 1982, through September 30, 1982.

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:

Sample	Period	1-131 (uCi/cc)	Cs-137 (uCi/cc)
HP-338	September 22 - 29, 1982	<6.4 E-14	<6.4 E-14

- Licensee Radioactive Material and Radwaste Shipments
 - -- On September 27, 1982, two Unit 1 solidified evaporator bottoms were shipped to U. S. Ecology (Hanford Burial Site), Richland, Washington.
 - -- On September 29, 1982, two Unit 1 solidified evaporator bottoms were shipped to U. S. Ecology, Richland, Washington.
 - On September 30, 1982, two Unit 1 solidified evaporator bottoms were shipped to U. S. Ecology, Richland, Washington.
 - -- On October 1, 1982, 66 drums of Unit 1 and Unit 2 contaminated laundry were shipped to the Interstate Uniform Laundry, New Kensington, Pennsylvania.

 On October 1, 1982, one container of five Unit 1 liquid samples (250 milliliter samples) was shipped to Nuclear Water and Waste Technology, San Jose, California.

Major Activities

- <u>Submerged Demineralizer System (SDS)</u>. The SDS is continuing the processing of Batch No. 36 (30,500 gallons of reactor building sump water). The processing is expected to be completed by October 4, 1982.
- EPICOR II. The EPICOR II system began processing SDS effluent (Batch No. 36) on September 30, 1982, and will continue the processing during the week of October 3, 1982.
- 3. <u>Reactor Building Entries.</u> Reactor Building entries were conducted on Monday, Wednesday, and Friday, September 27, 29, and October 1, 1982. Decontamination of the reactor building dome and the polar crane were the predominant tasks conducted during the entries. Gas samples were taken from the pressurizer and reactor coolant system hot-leg high points to determine whether hydrogen gas concentrations were accumulating in primary system gas pockets. The sample analysis indicated the following:

	Hot Leg A	Hot Leg B	Pressurizer
Hydrogen (%)	0.7	1.1	<0.1
Oxygen (%)	9.4	8.9	10.2
Nitrogen (%)	89.6	88.9	89.0

This analysis indicated that hydrogen gas concentrations are safe and below the combustible limits.

Three reactor building entries are scheduled next week. Continued decontamination of the polar crane will be the predominant activity during the entries.

4. EPICOR II Prefilter Shipment Status. EPICOR II prefilter shipments are scheduled to resume October 5, 1982. The licensee has tentatively scheduled eleven more shipments during 1982. Shipping cask availability had restricted prefilter shipments to two (PF-1 and PF-3) through September, 1982. GPU has now acquired the use of two type B casks (HN-200 and CNS 8-120) in addition to their own SN-1 cask.

Currently three EPICOR II prefilters (PF-2, PF-6 and PF-7) have been sampled, inerted with nitrogen gas, and stored on-site at the solid waste storage facility (SWSF). The hydrogen gas generation rates on these three prefilters is sufficiently low and indicates an acceptable storage and shipment period in excess of two months. The dose rate profile measurements on cask SN-1, loaded with prefilter PF-6, indicates that a minimum of two low-curie (200 curies) prefilter liners can be shipped in the SN-1 and meet the DOT/NRC dose rate requirements in this cask.

Past Meetings

- On Tuesday, September 28, 1982, Lake H. Barrett participated in a public panel discussion sponsored by the Hershey League of Women Voters regarding TMI Unit 2 cleanup issues.
- On Wednesday, September 29, 1982, Lake H. Barrett met with the Concerned Mothers of Middletown to discuss TMI Unit 1 restart and Unit 2 cleanup efforts. They expressed their opinion that Unit 1 should not be restarted prior to completion of Unit 2 cleanup.

Future Meeting

 On October 12, 1982, Lake H. Barrett will meet with the Concerned Mothers of Middletown to discuss TMI-related issues.

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