

December 4, 1983
NRC/TMI-83-075

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

Bernard J. Snyder, Program Director
THI Program Office

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

SUBJECT: NRC THI PROGRAM OFFICE WEEKLY STATUS REPORT FOR
November 27 - December 3, 1983

Data from effluent and environmental monitoring systems indicated no plant releases in excess of regulatory limits. Waste shipments continued on a routine basis. Plant parameters showed no significant changes. The reactor coolant system is depressurized and RCS level remains at 321'6" as part of underhead characterization studies.

Site activities this week included: Auxiliary Fuel Handling Building decontamination, "A" spent fuel pool refurbishment and procedure review. One reactor building entry was made in support of technical specifications and miscellaneous tasks. Mayor Morris, of Lancaster, was appointed by NRC Chairman Palladino to be Chairman of the NRC's Advisory Panel for the Decontamination of Unit 2. (For more details see appropriate paragraphs below.)

Significant items covered in the enclosure are:

- Reactor Building Activities
- Polar Crane Status
- Spent Fuel Pool "A" Refurbishment
- Auxiliary and Fuel Handling Building Activities
- Waste Management Activities
- Appointment of Advisory Panel Chairman
- Public Meetings

Data summary sheets included in this report are:

- Liquid Effluent Data
- Environmental Data
- Radioactive Material/Radwaste Shipment Data
- Water Processing Data
- Plant Status Data

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Lake H. Barrett
Deputy Program Director
THI Program Office

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TMI*

Enclosure: As stated

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ENCLOSURE

REACTOR BUILDING ACTIVITIES:

Reactor building entries are continuing at the rate of one per week. Ongoing reactor building activities include weekly primary system water sampling and a project to obtain a water and sludge sample from the reactor coolant drain tank. Reactor building activities are expected to continue at a minimal level during the remainder of 1983. The reactor building recovery schedule for 1984 is being developed based on the projected 1984 recovery funding.

POLAR CRANE STATUS:

Load testing of the polar crane will probably not begin until the first quarter of next year because of a shortage of funds. Early notice of the polar crane test schedule will be provided in the Weekly Status Report when the schedule is established by GPUN.

SPENT FUEL POOL "A" REFURBISHMENT:

Decontamination efforts in the upper tank farm tanks are continuing with the use of high-pressure water jets to dislodge contaminated sludge and scale. This technique has reduced the contact radiation level at the external wall of one tank by a factor of 10. The water jet decontamination process will be continued on the other tanks until the radiation levels are reduced to approximately 25 mR/hr. This work will continue next week and may require some additional hands-on decontamination. The tank will then be capped and sealed for eventual removal.

Shield slab decontamination and radiological survey in the truck bay enclosure is proceeding at a reduced pace because of EPICOR II liner dewatering operations. The licensee now plans to have the eight southern slabs removed by late January 1984 and the first tank removed from the pool by mid-February 1984.

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

Work on the expansion of the 328 ft. elevation decontamination facility continued this week. Partial operation of the facility has begun. Full operation should occur in a few weeks following the receipt of additional equipment components.

Other decontamination activities in the auxiliary and fuel handling building continue to be curtailed due to funding constraints.

WASTE MANAGEMENT ACTIVITIES:

During the week EPICOR demineralizers F-23, F-38, F-21, K-4, K-11, K-12, and 2K8 were shipped from TMI to Hanford, Washington. Demineralizers F-36, F-40, F-26, F-24 and K-6 have been dewatered in preparation for shipment.

APPOINTMENT OF ADVISORY PANEL CHAIRMAN:

Arthur E. Morris, Mayor of Lancaster, Pennsylvania, has been appointed Chairman of the Advisory Panel for the Decontamination of the Three Mile Island Nuclear Station, Unit 2, by NRC Chairman Nunzio J. Palladino. The Advisory Panel obtains local citizen views and provides the Commission with valuable counsel on the actions to be proposed and taken by the NRC regarding cleanup of the damaged reactor. Appendix 6 is a copy of the appointment letter. The next Advisory Panel meeting is scheduled in Harrisburg, Pennsylvania, on December 8, 1983 (see details below).

PUBLIC MEETINGS:

1. On December 5, 1983, Lake Barrett and Richard Conte, TMI-1 Senior Resident Inspector, will meet with the Concerned Mothers of Middletown to discuss TMI related issues.
2. On December 8, 1983, the Three Mile Island Unit 2 Advisory Panel will meet from 7:00 PM to 10:00 PM in the Holiday Inn, 23 South Second Street, Harrisburg, Pennsylvania. The meeting will be open to the public. The major topic for the meeting will be the 1984 plans for lifting the reactor vessel head. Persons who have questions pertaining to the TMI-2 cleanup and would like to have them considered or addressed by the Advisory Panel and persons desiring the opportunity to speak before the Advisory Panel on TMI-2 cleanup related items are asked to contact, in writing, Mr. Joel Roth, 4705 Carlisle Pike, Mechanicsburg, Pennsylvania 17055.

APPENDIX 1

LIQUID EFFLUENT DATA

GPU Nuclear

Based on sampling and monitoring, liquid effluents from the TMI site released to the Susquehanna River were determined to be within regulatory limits and in accordance with NRC requirements and the City of Lancaster Agreement.

During the period November 24, 1983 through November 30, 1983 no liquid effluent releases were made from individual sources within Unit 2.

Environmental Protection Agency

Lancaster Water Samples:	7 samples
Period Covered:	November 13 - November 19, 1983
Results:	Gamma Scan Negative
TMI Water Samples:	6 samples
Period Covered:	November 12 - November 19, 1983
Results:	Gamma Scan Negative

APPENDIX 2

ENVIRONMENTAL DATA

EPA Environmental Data

- The EPA Middletown Office has not received the environmental Kr-85 analytical results for the samples which were taken subsequent to November 11, 1983 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 November 22, 1983 through November 30, 1983.

NRC Environmental Data

Results from the NRC continuous air sampler monitoring of the TMI site environment are as follows:

<u>Sample</u>	<u>Period</u>	<u>I-131</u> <u>(uCi/cc)</u>	<u>Cs-137</u> <u>(uCi/cc)</u>
HP-395	November 23, 1983 - November 30, 1983	<8.0 E-14	<8.0 E-14

APPENDIX 3

RADIOACTIVE MATERIALS/RADWASTE SHIPMENT DATA

- On November 29, 1983, a HN-100 Type A cask containing six OTSG filters from TMI-1 was shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On November 29, 1983, two NU PAC 14/190M Type A casks containing EPICOR II liners F-23 and F-38 were shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On November 30, 1983, a HN-100 Type A cask containing EPICOR II liner K-4 was shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 1, 1983, a HN-100 Type A cask containing EPICOR II liner F-21 was shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 2, 1983, 75 drums of contaminated laundry from TMI-1 and TMI-2 were shipped to Interstate Uniform Service, New Kensington, Pennsylvania.
- On December 2, 1983, eight steel boxes of non-compacted trash from TMI-1 and TMI-2 and EPICOR II liners K-11, K-12 and 2K8 were shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.

APPENDIX 4

WATER PROCESSING DATA

Submerged Demineralizer System (SDS)

SDS was shutdown during the week.

EPICOR II

EPICOR processed batch 192 (1,469 gallons) and batch 193 (7,710 gallons) during the week. Both batches consisted of water from the miscellaneous waste holdup tank. Performance parameters for the most recent batch (batch 193) are shown below.

EPICOR Performance Parameters
November 29, 1983 to November 30, 1983

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Percent Removed</u>
Cesium 137	5.80 E-1	4.95 E-5	99.99
Strontium 90	1.60 E-1	5.85 E-5	99.96
Antimony 125	2.70 E-3	1.35 E-6	99.95

APPENDIX 5

PLANT STATUS

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

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

RCS Pressure Control Mode: N/A

Major Parameters as of 5:00 AM, December 2, 1983 (approximate values):

Average Incore Thermocouples*: 90°F
Maximum Incore Thermocouple*: 136°F

RCS Loop Temperatures:

	A	B
Hot Leg**	63°F	64°F
Cold Leg (1)	56°F	68°F
(2)	57°F	68°F

Reactor Core Decay Heat: 20.0 Kilowatts

RCS Pressure: 0 psig

Reactor Building: Temperature: 61°F
Pressure: -0.15 psig
Airborne Radionuclide Concentrations:

9.2 E-8 uCi/cc H³ (Tritium)
(sample taken 11/28/83)

4.1 E-9 uCi/cc particulates
(predominately Cs-137)
(sample taken 11/28/83)

*Uncertainties exist as to the exact location and accuracy of these readings.
**Since the RCS draindown, hot leg temperature detectors are above water level.