

February 17, 1984
NRC/TMI-84-014

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 FOR
February 12, 1984 - February 17, 1984

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

Site activities this period included: movement of the reactor building missile shields in preparation for polar crane load testing, other activities to prepare for head lift in late summer, and auxiliary and fuel handling building decontamination. Three reactor building entries were made this week in support of technical specifications and polar crane refurbishment tasks. GPUN is considering performing the 210-ton polar crane qualification load test in late February. (For more details see appropriate paragraphs below.)

Significant items covered in the enclosure are:

- Reactor Building Activities
- Reactor Building Polar Crane Activities
- Auxiliary and Fuel Handling Building Activities
- Makeup and Purification Demineralizer Status
- Waste Management Activities
- 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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P. J. Grant for//

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TMI*

OFFICE			Lake H. Barrett		
IRNAME			Deputy Program Director		
DATE	Enclosure:	As stated	TMI Program Office		

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ENCLOSURE

REACTOR BUILDING ACTIVITIES:

Three reactor building entries were made during the week of February 13, 1984. All five missile shields, weighing a total of 192 tons, were stacked on the polar crane load test frame.

The next major evolution in the reactor building, following the load test, will be a systematic video mapping of the reactor core. The core mapping is scheduled to commence in March 1984. Also, in March the reactor vessel head studs are scheduled to be partially detensioned (the head flange pressure boundary will be derated from 2,500 to 1,000 psi). In April 1984, the primary system is scheduled to be sealed; i.e control rod drive mechanisms will be closed and the level indicator will be isolated. The primary system will then be refilled and pressurized to approximately 60 psig. The above operation is being done in conjunction with further increasing the primary system boron concentration and RCS processing.

REACTOR BUILDING POLAR CRANE ACTIVITIES:

On February 13, 1984, GPU successfully completed the initial steps for requalifying the reactor building polar crane. The first object moved per an NRC approved procedure was a 6-ton internals indexing fixture (IIF). The total weight of this lift was approximately 24,500 pounds (12.25 tons), including the 6-ton head lift tripod, the IIF and miscellaneous rigging. On Wednesday, February 15, 1984, four 40-ton reactor vessel missile shields were also moved away from over the reactor vessel and stacked. On Friday, February 17, the 32-ton pressurizer missile shield was moved from above the pressurizer to an area away from the reactor vessel. All of these missile shields (five) have been stacked together to create a load test assembly that is expected to weigh approximately 212 tons. Two-hundred tons is the minimum weight that can be used to requalify the crane. These activities were monitored by NRC personnel in the reactor building and reactor building entry command center.

In previous Weekly Status Reports the TMIPO reported that GPUNC had planned to correct gaps in the polar crane rail sections prior to the load test. GPUNC has recently decided that these rail gaps need not be corrected prior to the load test. The NRC previously concluded in the safety evaluation, which approved the load test, that modification of the rails was not required.

GPUNC has tentatively scheduled the polar crane qualification load test for the last week in February.

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

Decontamination of areas necessary to provide access for surveillance of safety related equipment continued during the week. The reclaimed boric acid tank and pump cubicles on the 281' level of the auxiliary building are now accessible for surveillance. Internal system decontamination will be necessary to make the makeup filter cubicle on the 305' level accessible. A criticality assessment will be a prerequisite.

MAKEUP AND PURIFICATION DEMINERALIZER STATUS:

Preparations continue for the removal of the radioactive resins from the makeup and purification demineralizers in late 1984. On February 15, approximately 180 gallons of processed water were added to the "A" demineralizer and on February 16, nitrogen gas was bubbled through the "A" demineralizer in an attempt to break up the resin bed. Attempts to obtain a sample of the resin material from the demineralizer will be made in about two weeks.

WASTE MANAGEMENT ACTIVITIES:

The SDS waste water processing system is currently processing Batch 74 (see Appendix 4).

EPICOR II was shut down during the week.

PUBLIC MEETINGS:Past Meeting

On February 15, 1984, the NRC staff held a public meeting to discuss the draft Supplement to the PEIS at the Middletown High School. The draft Supplement revised upward the estimated radiation dose that could be collectively received by the cleanup workers in completing the cleanup. Members of the public participated in the discussion and had several comments on the revised estimates and the associated health effects to the workers. Transcripts of the meeting will be available for the public to read at the NRC TMI Middletown Office, 100 Brown Street, Middletown, Pennsylvania (hours are Tuesday Noon - 2:00 PM, Wednesday 5:00 - 8:00 PM and Thursday 3:00 - 5:00 PM) and at the State Library, Commonwealth and Walnut Streets, Harrisburg, Pennsylvania. All comments pertaining to the estimated worker exposure will be considered and addressed when the staff prepares the final Supplement to the PEIS.

Future Meetings

1. On February 21, 1984 Lake Barrett will meet with the members of Three Mile Island Alert to discuss Supplement 1 of the Programmatic Environmental Impact Statement.
2. On February 29, 1984 Lake Barrett will speak to the Baltimore-Washington chapter of the Health Physics Society concerning TMI-2 cleanup issues.
3. On March 8, 1984 the Advisory Panel for the Decontamination of Three Mile Island, Unit 2 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 PEIS Supplement. Persons that have questions pertaining to the TMI-2 cleanup that 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, PA 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 February 10, 1984 through February 16, 1984 no liquid effluent releases were made from Unit 2.

Environmental Protection Agency

Lancaster Water Samples:	7 samples
Period Covered:	January 22 - January 28, 1984
Results:	Gamma Scan Negative
TMI Water Samples:	7 samples
Period Covered:	January 21 - February 4, 1984
Results:	Gamma Scan Negative

APPENDIX 2

ENVIRONMENTAL DATA

EPA Environmental Data

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

<u>Location</u>	<u>January 20, 1984 - February 3, 1984</u> (pCi/m ³)
Goldsboro	23
Middletown	20
Yorkhaven	22
TMI Observation Center	22

- 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 February 7, 1984 through February 14, 1984.

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> (uCi/cc)	<u>Cs-137</u> (uCi/cc)
HP-406	February 9, 1984 - February 16, 1984	<9.1 E-14	<9.1 E-14

APPENDIX 3

RADIOACTIVE MATERIALS/RADWASTE SHIPMENT DATA

- February 13, 1984, 110 drums of contaminated clothing from TMI-2 were shipped to Interstate Uniform Service, New Kensington, Pennsylvania.
- February 16, 1984, a 1 liter sample from the "B" decay heat removal system of TMI-1 was shipped to GPU Nuclear at Oyster Creek, Forked River, New Jersey.
- February 16, 1984, three samples (250 ml each) from the "A" decay heat removal system and one sample (250 ml) from the spent fuel pool, both from TMI-1, were shipped to NWT Corporation, San Jose, California.

APPENDIX 4

WATER PROCESSING DATA

Submerged Demineralizer System (SDS)

SDS began processing Batch 74 on February 11, 1984 from the miscellaneous waste holdup tank. Processing has continued throughout this period. Performance parameters for Batch 74 will be incorporated into a subsequent Weekly Status Report.

EPICOR II

EPICOR II HAS BEEN shutdown since January 25, 1984.

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 5:30 AM, February 17, 1984 (approximate values):

Average Incore Thermocouples*: 83°F

Maximum Incore Thermocouple*: 141°F

RCS Loop Temperatures:

	A	B
Hot Leg**	58°F	64°F
Cold Leg (1)	68°F	62°F
(2)	68°F	62°F

Reactor Core Decay Heat: 18.5 Kilowatts

RCS Pressure: 0 psig

Reactor Building: Temperature: 58°F

Pressure: -0.15 psig

Airborne Radionuclide Concentrations:

1.4 E-7 uCi/cc H³ (Tritium)
(sample taken 2/15/84)

1.3 E-9 uCi/cc particulates
(predominately Cs-137)
(sample taken 2/15/84)

*Uncertainties exist as to the exact location and accuracy of these readings.
Maximum incore thermocouple reading taken February 16 at 5:00 AM.

**Since the RCS draindown, hot leg temperature detectors are above water level.