

March 12, 1984
NRC/TMI-84-018

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
March 4, 1984 - March 10, 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: completion of polar crane load testing, other activities to prepare for head lift in late summer, reactor building air cooling system work and auxiliary and fuel handling building decontamination. Three reactor building entries were made this week in support of technical specification requirements and preparations for first pass head detensioning. (For more details see appropriate paragraphs below.)

Significant items covered in the enclosure are:

- Reactor Building Activities
- Auxiliary and Fuel Handling Building Activities
- 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

Original signed by
Lake H. Barrett

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Lake H. Barrett
Deputy Program Director
TMI Program Office

Enclosure: As stated

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TMI
KOHINGIA*

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DATE	3/12/84	3/12/84	3/12/84		

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ENCLOSURE

REACTOR BUILDING ACTIVITIES:

Three reactor building entries were completed during the week of March 4, 1984. Missile shields, which had been used for the polar crane load test, were stored on top of the "D rings" and the polar crane was reconfigured for normal operations. The sixty studs that secure the reactor vessel head were mechanically cleaned in preparation for first pass head detensioning.

Four reactor building entries are scheduled during the week of March 11, 1984. The first pass head stud partial detensioning is one of the evolutions planned during the week. This partial detensioning is to determine whether any of the stud nuts holding the head in place are stuck beyond the capabilities of the normal unbolting techniques. In addition to partial detensioning, two of the studs will be unthreaded and removed from the reactor vessel flange. (The normal head removal sequence includes removal of all 60 studs from the vessel flange.) Calculations indicate that following the planned stud removal and partial detensioning, the reactor vessel flange pressure retaining capability will be 1,000 PSIG. This flange pressure capability will not adversely impact future operations which include refilling the reactor coolant system.

Also, six core debris bed samples will be obtained during the week of March 11, 1984. The sampling techniques will be similar to those used in the fall of 1983 when six initial debris samples were obtained. A remotely operated sampler will be inserted manually into the debris pile by an operator working on the control rod drive service structure. During the debris sampling in 1983, the depth of the sample was limited to 22 inches below the debris surface by the length of the sampler extension rods. Sufficient rods have now been manufactured to permit the sampler to reach the bottom of the core. The sampler operator will attempt to push the sampling chamber into the debris as deep as possible using manual force. The extension rods have been calibrated to measure whatever depth is reached.

Reactor vessel head lift is scheduled for August 1984. The licensee has completed internal review and approval of the head lift safety evaluation. The NRC TMIPO staff will review the licensee safety evaluation and will issue an independent safety evaluation for the head lift evolutions.

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

Decontamination of areas necessary to provide access for surveillance of safety related equipment continued during the week. Scabbling and painting of floors also continued as did work on the reactor building air cooling system mentioned in last week's report.

WASTE MANAGEMENT ACTIVITIES:

The SDS waste water processing system processed Batches 75 and 76. EPICOR II processed Batch 212 (see Appendix 4).

Demineralizer vessels F-53 and K-13 of the EPICOR II system were removed from service. Dewatering of the liners has commenced in preparation of shipment of the vessels.

PUBLIC MEETING:

Due to inclement weather, the meeting of the Advisory Panel for the Decontamination of Three Mile Island, Unit 2 that was scheduled for March 8, 1984, is rescheduled for March 29, 1984.

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 March 1, 1984 through March 8, 1984 liquid effluents contained no detectable radioactivity at the discharge point. Individual effluent sources originating within Unit 2 contained minute amounts of radioactivity. Calculations indicate that less than $2.3 \text{ E-}7$ (0.00000023) of a curies of Cs-137 was discharged.

Environmental Protection Agency

Lancaster Water Samples:	8 samples
Period Covered:	February 18 - February 25, 1984
Results:	Gamma Scan Negative
TMI Water Samples:	6 samples
Period Covered:	February 18 - February 24, 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>February 3, 1984 - February 17, 1984</u> (pCi/m ³)
Goldsboro	30
Middletown	31
Yorkhaven	34
TMI Observation Center	27

-- 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 21, 1984 through February 28, 1984.

*NOTE: The Kr-85 analysis is now done at the EPA Field Office, Middletown, Pennsylvania, instead of in Las Vegas, Nevada. Also, Kr-85 and the air and gamma rate network analyses will now be done on a monthly basis instead of weekly.

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-409	March 1, 1984 - March 8, 1984	<9.7 E-14	<9.7 E-14

APPENDIX 3

RADIOACTIVE MATERIALS/RADWASTE SHIPMENT DATA

- March 7, 1984, 100 drums of contaminated clothing from TMI-2 were shipped to Interstate Uniform Service, New Kensington, Pennsylvania.
- March 9, 1984, two cable sections (20 feet in length each) from the TMI-2 reactor building were shipped to the Westinghouse Hanford Company in Richland, Washington.

APPENDIX 4

WATER PROCESSING DATA

Submerged Demineralizer System (SDS)

SDS processed Batch 75 (2,305 gallons) and Batch 76 (14,095 gallons) from March 6, 1984 to March 8, 1984. Batch 75 was an SDS flush in preparation for processing the reactor coolant system letdown Batch 76. Both batches were fed through SDS from the 'C' reactor coolant bleed tank. Performance parameters will be included in a subsequent Weekly Status Report.

EPICOR II

EPICOR II processed Batch 212 (1,800 gallons) on March 6 and 7, 1984. The feed was from the 'A' monitor tank. Below are the performance parameters for Batch 217.

EPICOR Performance Parameters March 6, 1984 - March 7, 1984

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Percent Removed (%)</u>
Cesium 137	6.4 E-4	1.6 E-7	99.98
Strontium 90	1.5 E-1	6.1 E-6	99.99
Antimony 125	2.4 E-1	3.9 E-7	99.99

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, March 9, 1984 (approximate values):

Average Incore Thermocouples*: 85°F
Maximum Incore Thermocouple*: 145°F

RCS Loop Temperatures:

	A	B
Hot Leg**	60°F	66°F
Cold Leg (1)	71°F	64°F
(2)	71°F	65°F

Reactor Core Decay Heat: 18.0 Kilowatts

RCS Pressure: 0 psig

Reactor Building: Temperature: 59°F

Pressure: -0.09 psig

Airborne Radionuclide Concentrations:

6.7 E-8 uCi/cc H³ (Tritium)
(sample taken 3/8/84)

1.2 E-9 uCi/cc particulates
(predominately Cs-137)
(sample taken 3/7/84)

*Uncertainties exist as to the exact location and accuracy of these readings.
Maximum incore thermocouple reading taken February 22.

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