January 30, 1984
NRC/TMI-84-009

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
January 22, 1984 - January 28, 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: reactor building general activities, preparation for partial detensioning of reactor head studs and other activities to prepare for head lift in late summer, auxiliary and fuel handling building decontamination and "A" spent fuel pool refurbishment. One reactor building entry was made this week in support of technical specifications and polar crane rail repair tasks. (For more details see appropriate paragraphs below.)

Significant items covered in the enclosure are:

-- Reactor Building Activities
-- Spent Fuel Pool "A" Refurbishment
-- 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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TMI

//signed by//

Lake H. Barrett
Deputy Program Director
TMI Program Office

OFFICE ▶						
NAME ▶	Enclosure: As stated					
DATE ▶						

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Commissioner's Technical Assistants
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OFFICE ▶	TMIPO	TMIPO	TMIPO	TMIPO			
NAME ▶	LPrough/lmp	AFasano	RGrant	LBarrett			
DATE ▶	1/30/84	1/30/84	1/30/84	1/ /84			

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ENCLOSURE

REACTOR BUILDING ACTIVITIES:

Two reactor building entries have been scheduled for the week of January 29, 1984. The pace of work in the reactor building will be accelerating to meet critical path mile stones on the schedule aimed at lifting the reactor vessel head in August 1984. Some of the major prerequisites for head lift and the schedule for these activities are tabulated below.

Movement of Reactor Head Missile Shields - late February 1984
Refueling Canal Seal Plate Installation - March 1984
Partial (First Pass) Reactor Vessel Head Stud Detensioning - April 1984
Polar Crane Load Test - April 1984
Canal Fill and Drain System Functional - June 1984
Install Head Storage Stand Shields - June 1984
Remove Reactor Vessel Studs - July 1984
Install Head Lift Monitoring Video System - July 1984

Radionuclide buildup in the reactor coolant system water may necessitate processing this water prior to head removal to reduce ambient radiation levels. Should processing be required, it may be necessary to repressurize the primary system to induce letdown flow to the reactor coolant bleed tanks for eventual transfer to the submerged demineralizer system for processing. Another potential schedule perturbation may occur if an ongoing study concludes that there is a significant radiological advantage to remove individual control rod lead screws from the reactor vessel head prior to lifting the head. The current schedule assumes that lead screws will remain in the vessel head during head removal.

SPENT FUEL POOL "A" REFURBISHMENT:

Due to the funding constraints, the refurbishment of the "A" spent fuel pool has been put on hold until late 1984. The limited funds available for the cleanup in 1984 have been allocated to essential activities on the critical path to reactor vessel head removal. The spent fuel pool is being refurbished in preparation for interim storage of reactor core debris. Transfer of the core debris from the reactor vessel is several years away and it appears that the fuel pool refurbishment can be delayed without impacting the overall recovery schedule.

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

The pace of decontamination activities in the auxiliary and fuel handling buildings has decreased due to limited operating funds in 1984. Personnel and material resources will be shifted to decontamination whenever there is a lull in activities on the critical path toward reactor vessel head removal. Dedicated funds have been committed for decontamination of specific areas to facilitate surveillance activities required by the technical specifications. High radiation and contamination in many areas of the auxiliary and fuel handling buildings have prohibited surveillance of safety related equipment. Decontamination of areas impeding the required surveillances is proceeding on an established schedule.

MAKEUP AND PURIFICATION DEMINERALIZER STATUS:

Preparations continue for the removal of the radioactive resins from makeup and purification demineralizers in late 1984. Mockup training for removal of a resin sample from the "A" demineralizer was conducted during the week of January 15 and final procedures are currently in the review and approval cycle. Resin sampling is scheduled for early February. Equipment for washing (elution) of cesium from the resin beds has been fabricated and tested at a Westinghouse facility and is scheduled for delivery to the site within the next month. The cesium elution process will be conducted between June and August 1984.

WASTE MANAGEMENT ACTIVITIES:

SDS and EPICOR II waste water processing continued this period. (see Appendix 4)

PUBLIC MEETINGS:

1. On January 30, 1984, Lake Barrett and Dr. Ronnie Lo will meet with officers of the Harrisburg and Central Pennsylvania Building and Construction Trades Council in Harrisburg to discuss the PEIS Supplement on cleanup occupational exposures.

2. February 3, 1984, the Three Mile Island Unit 2 Advisory Panel will meet at 11:00 AM with the Nuclear Regulatory Commission at 1717 H Street, Washington, DC. The public may observe the meeting.

3. February 9, 1984, 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 future EPA monitoring plans and the NRC PEIS supplement on occupational exposure. 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.

4. On February 15, 1984, NRC staff will hold a public meeting to receive public comments on the draft Supplement 1 to the Programmatic Environmental Impact Statement (PEIS, NUREG-0683, Supplement 1). The meeting will be held at 7:00 PM at the Middletown High School auditorium, 1155 N. Union Street, Middletown, PA. Single copies of the draft Supplement may be obtained by writing to the Director, Division of Technical Information and Document Control, U.S. Nuclear Regulatory Commission, Washington, DC 20555, or the Deputy Program Director, NRC TMI Program Office, P.O. Box 311, Middletown, PA 17057. The staff welcomes comments from the public on the draft Supplement. All comments will be reviewed and taken into consideration when the NRC staff prepares the final Supplement to the PEIS. The comments should be received by February 29, 1984, and addressed to Dr. Bernard J. Snyder, Program Director, TMI Program Office, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

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 January 20 through January 26, 1984 no liquid effluent releases were made from individual sources within Unit 2.

Environmental Protection Agency

Lancaster Water Samples:	7 samples
Period Covered:	January 1 - January 7, 1984
Results:	Gamma Scan Negative
TMI Water Samples:	7 samples
Period Covered:	January 7 - January 14, 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:

Location	December 23, 1983 - January 6, 1984 (pCi/m^3)
Goldsboro	22*
Middletown	20
Yorkhaven	21
TMI Observation Center	**

*Monitoring at Goldsboro was for the period from December 29, 1983 to January 6, 1984

**Insufficient volume for analysis

-- 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 January 17, 1984 through January 24, 1984.

NRC Environmental Data

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

Sample	Period	I-131 (uCi/cc)	Cs-137 (uCi/cc)
HP-403	January 18, 1984 - January 25, 1984	<8.9 E-14	<8.9 E-14

APPENDIX 3

RADIOACTIVE MATERIALS/RADWASTE SHIPMENT DATA

-- January 26, 1984, liquid samples (270 ml each) from the TMI-1 reactor coolant system, spent fuel pools, steam generators and boric waste storage tank were shipped to NWT Corporation, San Jose, California.

-- On January 26, 1984, four boxes containing liquid samples (1 liter each) from the TMI-1 reactor coolant pump #1627 were shipped to Teledyne Isotopes, Westwood, New Jersey.

APPENDIX 4

WATER PROCESSING DATA

Submerged Demineralizer System (SDS)

SDS shutdown from January 14 through January 19, 1984. SDS processed Batch 73 (19,539 gallons) from January 20 to January 22, 1984. Batch 73 feed was the waste gas decay tanks (lower tank farm). SDS again shutdown from January 23 to present. The following performance parameters were calculated for Batch 73.

SDS Performance Parameters
January 20, 1984 to January 22, 1984

Radionuclide	Average Influent (uc/ml)	Average Effluent (uc/ml)	Percent Removed
Cesium 137	4.0 E-2	8.9 E-5	99.8
Strontium 90	3.3 E-1	4.9 E-3	98.5

EPICOR II

EPICOR shutdown from January 15 to January 18, 1984. During the period of January 19 through January 24, 1984, EPICOR processed Batch 204 (5,500 gallons), Batch 205 (5,000 gallons), Batch 206 (10,957 gallons), Batch 207 (2,732 gallons), and Batch 208 (1,577 gallons). Batches 204 and 206 were from the A monitor tank and Batches 205 and 207 were from the B monitor tank. Batch 208 originated from the CCB sump. EPICOR again shutdown from January 25 to present. The performance parameters below are an average of the five batches that were processed.

EPICOR Performance Parameters
January 19, 1984 to January 24, 1984

Radionuclide	Average Influent (uc/ml)	Average Effluent (uc/ml)	Percent Removed
Cesium 137	1.1 E-3	1.6 E-7	99.99
Strontium 90	7.0 E-3	8.2 E-6	99.88
Antimony 125	2.2 E-3	3.4 E-7	99.98

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, January 27, 1984 (approximate values):
Average Incore Thermocouples*: 82°F
Maximum Incore Thermocouple*: 145°F

RCS Loop Temperatures:

	A	B
Hot Leg**	55°F	63°F
Cold Leg (1)	52°F	61°F
(2)	52°F	61°F

Reactor Core Decay Heat: 19 Kilowatts

RCS Pressure: 0 psig

Reactor Building: Temperature: 55°F
Pressure: -0.05 psig
Airborne Radionuclide Concentrations:

6.6 E-9 uCi/cc H^3 (Tritium)
(sample taken 1/23/84)

1.2 E-9 uCi/cc particulates
(predominately Cs-137)
(sample taken 1/23/84)

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