

December 19, 1983
NRC/TMI-83-079

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
December 11 - December 17, 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 and 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. (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
- Waste Management Activities
- Makeup and Purification Demineralizer Status
- 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

Due to the Christmas holiday, the next Weekly Status Report will be issued on January 9, 1984 to cover the period December 18, 1983 through January 7, 1984.

8312300333 831219
PDR ADDCK 05000320
R PDR

L. H. Barrett
Lake H. Barrett
Deputy Program Director
TMI Program Office

5
COPY
TMI
KGM

OFFICE ►
UNASS ►
DATE ►
Enclosure: As stated

INTERNAL DISTRIBUTION

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
TMIPO HQ r/f
TMI SITE r/f
CENTRAL FILE
NRC PDR
LOCAL PDR
TMI-a Project
Section File

OFFICE ▶	TMIPD	TMIPD	TMIPD	TMIPD			
USERNAME ▶	JBelimp	AFasano	Grant	LBarrett			
DATE ▶	12/1/83	12/19/83	12/19/83	12/1/83			

ENCLOSURE

REACTOR BUILDING ACTIVITIES:

Reactor building activities are constrained by funding limitations for the remainder of 1983. Brief, weekly entries will continue during this period to meet technical specification requirements to obtain weekly reactor coolant system water samples for boron analysis. A reactor building recovery schedule is being developed based on the projected funding which has been identified for 1984.

A Department of Energy financed project to characterize the contents of the reactor coolant drain tank has been completed. The drain tank, which received the discharge from the failed open pressurizer relief valve during the 1979 accident, was inspected internally by closed circuit television (CCTV), and the tank contents were sampled. The CCTV inspection was limited to the area immediately below the 18 inch diameter tank rupture disc penetration. A thin (millimeter range) debris layer of fine particles was identified on the bottom surface of the tank during the CCTV inspection. The tank liquid and debris were sampled and the samples are being transferred for laboratory analysis. Contact radiation levels from both the liquid and solids samples were not measurably different from the background radiation in the reactor building.

SPENT FUEL POOL "A" REFURBISHMENT:

Decontamination of the lower tank farm is being delayed by the filter plugging problem in the SDS. Alternate filter designs are being considered. Two concrete shield slabs have been decontaminated, primed, painted and transferred for storage at the south end of the island. A third slab has been decontaminated and primed and is in the process of being painted. Five additional slabs will be removed by January 1984 before the first of the six tanks are removed from the "A" spent fuel pool.

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. Training of personnel in the operation of the specialized equipment continued.

Decontamination activities in the auxiliary and fuel handling buildings consisted of some surface scabbling and cubicle decontamination by hydrolazing. Tests of chemical foam decontamination systems were completed this week and the data obtained are being evaluated by the licensee. Decontamination activities continue at a reduced pace due to funding limitations.

WASTE MANAGEMENT ACTIVITIES:

On Friday, December 16, 1983, spent EPICOR liner K-9 was re-packaged to meet regulatory criteria and shipped to the Hanford Burial site for disposal. Liner K-9 was previously removed from a waste shipment scheduled on December 8, 1983.

when the NRC staff determined that the dose rate at contact exceeded the regulatory limit. A notice of violation is being issued to GPU Nuclear by the NRC regarding this finding.

As of December 16, 1983, all EPICOR demineralizers meeting present disposal criteria and that would exceed class A criteria (10 CFR 61, effective December 27, 1983) have been shipped for disposal. (See Appendix 3, Shipments)

MAKEUP AND PURIFICATION DEMINERALIZER STATUS:

Preparations continued for the removal of the radioactive resins from the AFHB makeup and purification demineralizers (MU -1A and 1B). The next phases of the removal program are sampling of the "A" demineralizer followed by chemical elution of the radioactive cesium-137 from the resin material. A safety evaluation report covering the resin sampling is under review by the NRC/TMIPO staff.

Mockup training of GPU personnel will be conducted within the next two weeks in preparation for the resin sampling. The steps in the resin sampling include the addition of water, nitrogen sparging, and the withdrawing of a sample from the 'A' demineralizer resin bed. The actual resin sampling will not be performed until January 1984.

Process equipment for elution of cesium from the resin is being fabricated. Delivery of the equipment has been delayed by about two weeks because of a design change requiring additional seal welding of pipe joints. Delivery is expected by mid-February. The actual cesium elution is not scheduled until the second quarter of 1984.

PUBLIC MEETINGS:

1. On January 10, 1984, Lake Barrett will meet with the Concerned Mothers of Middletown to discuss TMI related issues.
2. On January 12, 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 1984 funding of the Unit 2 recovery program. 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, 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 December 9, 1983 through December 15, 1983 no liquid effluent releases were made from individual sources within Unit 2.

Environmental Protection Agency

Lancaster Water Samples:	7 samples
Period Covered:	November 27 - December 3, 1983
Results:	Gamma Scan Negative
TMI Water Samples:	5 samples
Period Covered:	November 26 - December 2, 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 23, 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 December 6, 1983 through December 13, 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-397	December 7, 1983 - December 14, 1983	<8.0 E-14	<8.0 E-14

APPENDIX 3

RADIOACTIVE MATERIALS/RADWASTE SHIPMENT DATA

- On December 14, 1983, two CNSI 21-300 Type A casks containing EPICOR II liners F-27 and F-28 were shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 14, 1983, a NU PAC 14/190 M Type A cask containing mechanical filters from TMI-1 was shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 14, 1983, two HN-100 Type A casks containing EPICOR II liners F-24 and K-6 were shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 14, 1983, two steel liners containing solidified evaporator bottoms from TMI-1 were shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 16, 1983, 92 drums of contaminated laundry from TMI-1 and TMI-2 were shipped to Interstate Uniform Service, New Kensington, Pennsylvania.
- On December 16, 1983, a CNSI 21-300 Type A cask containing EPICOR II liner F-47 was shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 16, 1983, 48 drums of compacted trash, 2 steel boxes of non-compacted trash, and EPICOR liner K-9 were shipped to U.S. Ecology, Hanford Burial Site, Richland, Washington.
- On December 16, 1983, two liquid samples from the waste evaporator condensate storage tank and the reactor coolant system were shipped to Teledyne Isotopes, Westwood, New Jersey.

APPENDIX 4

WATER PROCESSING DATA

Submerged Demineralizer System (SDS)

SDS was shutdown during the week.

EPICOR II

EPICOR was shutdown during the week.

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 16, 1983 (approximate values):

Average Incore Thermocouples*: 88°F

Maximum Incore Thermocouple*: 137°F

RCS Loop Temperatures:

	A	B
Hot Leg**	62°F	64°F
Cold Leg (1)	56°F	65°F
(2)	56°F	64°F

Reactor Core Decay Heat: 19.5 Kilowatts

RCS Pressure: 0 psig

Reactor Building: Temperature: 60°F

Pressure: -0.15 psig

Airborne Radionuclide Concentrations:

7.7 E-8 uCi/cc H³ (Tritium)
(sample taken 12/12/83)

2.9 E-9 uCi/cc particulates
(predominately Cs-137)
(sample taken 12/12/83)

*Uncertainties exist as to the exact location and accuracy of these readings.

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