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January 10, 1983  
NRC/TMI-83-04

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

Enclosed is the status report for the period of January 4, 1983, through January 10, 1983. Major items included in this report are:

- Liquid Effluents
- EPA and NRC Environmental Data
- Radioactive Material and Radwaste Shipments
- Submerged Demineralizer System Status
- EPICOR II Status
- Reactor Building Entries
- SDS Liner Shipment Preparations
- EPICOR II Prefilter Shipment
- Public Meetings

Original signed by  
Lake H. Barrett

Lake H. Barrett  
Deputy Program Director  
TMI Program Office

Enclosure: As stated

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Harold R. Denton  
Bernard J. Snyder

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January 10, 1983

cc w/encl:  
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OGC  
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NRR Division Directors  
NRR A/D's  
Regional Administrators  
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TMI Program Office Staff (15)  
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DATE	1/10/83	1/10/83 <i>[Signature]</i>	1/10/83	1/10/83 <i>[Signature]</i>	1/10/83	1/10/83	

# NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

January 2, 1983 - January 8, 1983

## Plant Status

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

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

RCS Pressure Control Mode: Standby Pressure Control System.

Major Parameters (as of 5:00 AM, January 7, 1983) (approximate values):

Average Incore Thermocouples\*: 90°F

Maximum Incore Thermocouple\*: 131°F

RCS Loop Temperatures:

	A	B
Hot Leg	86°F	85°F
Cold Leg (1)	83°F	74°F
(2)	83°F	74°F

Pressure: 62 psig

Reactor Building: Temperature: 72°F

Pressure: -0.2 psig

Airborne Radionuclide Concentrations:

7.6 E-7 uCi/cc H<sup>3</sup>  
(sample taken 1/6/83)

1.5 E-8 uCi/cc particulates  
(sample taken 1/6/83)

## 1. Effluent and Environmental (Radiological) Information

Liquid effluents from the TMI site released to the Susquehanna River after sampling and monitoring were within the regulatory limits and in accordance with NRC requirements and City of Lancaster Agreement.

During the period December 31, 1982, through January 6, 1983, the effluents contained no detectable radioactivity at the discharge point although individual effluent sources which originated within Unit 2 contained minute amounts of radioactivity. Calculations indicate that less than one ten-millionth (0.0000001) of a curie of cesium and less than 20 millionths (0.000020) of a curie of tritium were discharged.

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

## 2. Environmental Protection Agency (EPA) Environmental Data

- The EPA Middletown Office has not received the environmental Kr-85 results for the samples which were taken subsequent to December 10, 1982 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 periods from December 29, 1982 through January 6, 1983.

## 3. NRC Environmental Data

Results are from NRC monitoring of the environment around the TMI site.

- The following are the NRC air sample analytical results for the onsite continuous air sampler:

<u>Sample</u>	<u>Period</u>	<u>I-131 (uCi/cc)</u>	<u>Cs-137 (uCi/cc)</u>
HP-351	12/29/82 - 1/4/83	<8.4 E-14	<8.4 E-14

## 4. Licensee Radioactive Material and Radwaste Shipments

- On January 3, 1983, one box containing a one liter liquid sample taken from the Unit 1 waste evaporate condensate storage tank was mailed to Radiation Management Corporation, Philadelphia, Pennsylvania.
- On January 3, 1983, 78 drums containing contaminated laundry from Unit 1 and Unit 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.
- On January 6, 1983, one box containing Unit 1 liquid samples was mailed to Radiation Management Corporation, Philadelphia, Pennsylvania.
- On January 6, 1983, one drum containing three Unit 2 control rod drive mechanism (CRDM) electrical cables was shipped to Westinghouse Hanford Co., Richland, Washington.
- On January 6, 1983, one drum containing one Unit 2 CRDM electrical cable was shipped to Westinghouse Hanford Co., Richland, Washington.
- On January 6, 1983, one drum containing eight 250-milliliter once-through-steam-generator (OTSG) flush test samples from Unit 1 was shipped to Babcock and Wilcox, Lynchburg, Virginia.

- On January 7, 1983, one box containing various smear and swipe samples from Unit 1 was shipped to Babcock and Wilcox, Lynchburg, Virginia.
- On January 7, 1983, one drum containing water samples taken from a Unit 1 OTSG and miscellaneous swipes was shipped to Babcock and Wilcox, Lynchburg, Virginia.
- On January 7, 1983, a CNS-8-120 (type B) shipping cask containing EPICOR II prefilter No. PF-50 was shipped to Idaho National Engineering Laboratory, Scoville, Idaho.
- On January 7, 1983, 101 drums containing contaminated laundry from Unit 1 and Unit 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.

### Major Activities

1. Submerged Demineralizer System (SDS). The SDS performance parameters for Batch 6 of reactor coolant system (RCS) water (which comprised SDS Batches 39 and 40), are included in Attachment 1. RCS Batch 6 was completed on December 27, 1982.

Processing of SDS Batch 41 (48,000 gallons of reactor building sump water) began January 4, 1983. It was interrupted to allow the EPICOR II processing of the water from the "A" once-through-steam-generator. In addition, 40,000 gallons of RCS water, which had gone through the "feed-and-bleed" process, have been staged in the "C" reactor coolant bleed tank to await SDS processing.

2. EPICOR II. EPICOR II processed 2,000 gallons of water from the "A" contaminated drain tank (CDT) on January 5, 1983. (The performance parameters are included in Attachment 1.) The processing of the CDT water was necessary to allow the drain down of water from the "A" once-through-steam-generator (OTSG) to the contaminated drain tank. The OTSG transfer is scheduled to begin on January 7, 1983; it will consist of approximately 35,000 gallons, which will then be processed by EPICOR II. Subsequent to this, EPICOR II will begin processing of SDS Batch 41.
3. Reactor Building Entries. Four reactor building entries were made during the first week of January. The decontamination of exposed reactor building surfaces is being reevaluated after post decontamination surveys of horizontal surfaces indicated that surface recontamination was occurring. Preliminary data indicate that the recontamination is occurring at rates which significantly reduce the long term effectiveness of the original decontamination. Experiments have been devised to determine the recontamination mechanism. While the surface recontamination phenomenon is being investigated, remote decontamination of walls on the 282 ft. elevation is continuing. Decontamination of the reactor vessel service structure and the refueling pool area commenced on Friday, January 7, 1983.

Polar crane refurbishment is proceeding without major obstacles. Crane inspection by an NRC contractor is scheduled for mid-January. The crane load test is scheduled for late February.

Lack of available man-rem for certain personnel in the specialized work force has been identified as a potential limiting factor in the projected work scheduled during the first two quarters of 1983. The licensee has procured shielding material for use on the high radiation sources in the reactor building, and it is scheduled for installation in January. The effectiveness of the shielding and the decontamination program will be critical factors in the progress of the reactor building recovery effort.

Five reactor building entries per week have been scheduled during the next two weeks.

4. SDS Liner Shipment Preparations. The first recombiner loaded SDS waste liner, which was shipped from TMI last week, arrived safely at the DOE facility in Richland, Washington on January 3, 1983. The licensee is making preparations for the next SDS shipment, which is tentatively scheduled for January 21, 1983. The shipping preparations will be similar to those for the first shipment, including a monitoring period to demonstrate that non-combustible gas conditions will be maintained for a minimum of twice the expected handling and shipping period.
5. EPICOR II Prefilter Shipment. EPICOR II prefilter liner PF-50 was shipped from TMI to the Idaho National Engineering Laboratory (INEL) on January 7, 1983. This EPICOR prefilter shipment brings to a total of 17 (in a group of 49) prefilters that have been shipped to INEL. One prefilter shipment is scheduled for next week.

Future Meetings

1. On January 11, 1983, Lake H. Barrett will meet with the Concerned Mothers of Middletown to discuss TMI related issues.
2. On January 17, 1983, Lake H. Barrett will meet with Friends and Family of TMI to discuss various TMI related issues.
3. During the ASME week activities January 17-20, 1983, in Sarasota, Florida, Ronald R. Bellamy will speak on TMI related issues.
4. On January 19, 1983, Anthony N. Fasano will speak on the reactor vessel "Quick Look" results at an American Nuclear Society Meeting at Pennsylvania State University, Middletown campus.
5. On January 24, 1983, Lake H. Barrett will address the Harrisburg Rotary Club on various TMI issues.
6. On February 2, 1983, the Advisory Panel for the decontamination of TMI Unit 2 will hold a meeting from 7:00 to 10:00 p.m. at the Holiday Inn, 23 South Second Street, Harrisburg, Pennsylvania.