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March 7, 1983  
 NRC/TMI-83-017

50-320

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 February 27, 1983, through March 5, 1983. Major items included in this report are:

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

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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March 7, 1983

cc w/encl:  
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OFFICE ▶	TMIP0	TMI2PS	TMI2PS	TMIP0	TMIP0		
SURNAME ▶	H. Denton	JBell	A. Fasano	P. Grant	L. Barrett		
DATE ▶	3/7/83	3/7/83	3/7/83	3/7/83	3/7/83		

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

February 27, 1983 - March 5, 1983

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: Standby Pressure Control System.

Major Parameters (as of 5:00 AM, March 4, 1983) (approximate values)

Average Incore Thermocouples\*: 96°F

Maximum Incore Thermocouple\*: 138°F

RCS Loop Temperatures:

	A	B
Hot Leg	80°F	80°F
Cold Leg (1)	72°F	81°F
(2)	75°F	81°F

RCS Pressure: 64 psig

Reactor Building: Temperature: 70°F

Pressure: -0.2 psig

Airborne Radionuclide Concentrations:

2.6 E-8 uCi/cc H<sup>3</sup>  
(sample taken 3/3/83)

4.3 E-9 uCi/cc particulates  
(sample taken 3/3/83)

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 February 25, 1983, through March 3, 1983, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2 contained no detectable radioactivity.

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

## 2. Airborne Effluents

Airborne releases to the environment in January 1983, as measured by licensee installed monitors at discharge stacks, are listed below. The releases were well within regulatory limits.

	<u>Unit II</u>	<u>January 1983</u> <u>EPICOR II</u>
Noble gases (Ci)	6.8	2.26
Particulates (Ci)	$1.77 \times 10^{-6}$	$9.97 \times 10^{-8}$
Tritium (Ci)	3.83	$3.0 \times 10^{-2}$

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

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

<u>Location</u>	<u>February 4, 1983 - February 18, 1983</u> <u>(pCi/m<sup>3</sup>)</u>
Goldsboro	25
Middletown	24
Yorkhaven	28
TMI Observation Center	27

-- The EPA Middletown Office has not received the environmental Kr-85 analytical results for the samples which were taken subsequent to February 18, 1983. These results, which are being provided by the EPA's Counting Laboratory at Las Vegas, Nevada, 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 monitoring networks during the periods from February 24, 1983, through March 3, 1983.

## 4. NRC Environmental Data

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

<u>Sample</u>	<u>Period</u>	<u>I-131</u> <u>(uCi/cc)</u>	<u>Cs-137</u> <u>(uCi/cc)</u>
HP-359	February 23 - March 2, 1983	<7.0 E-14	<7.0 E-14

## 5. Licensee Radioactive Material and Radwaste Shipments

-- On February 28, 1983, one box containing camera equipment from Unit 1 was shipped to Babcock and Wilcox, Lynchburg, Virginia.

- On March 2, 1983, 96 drums containing contaminated laundry from Units 1 and 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.
- On March 3, 1983, one box containing one 250 ml liquid sample taken from the Unit 1 decay heat removal system was mailed to Teledyne Corporation, Westwood, New Jersey.
- On March 4, 1983, one SN-1 (Type B) shipping cask containing Unit 2 EPICOR Prefilter No. PF-10, was shipped to EG&G, Scoville, Idaho.
- On March 4, 1983, one 1-13C-II (Type B) shipping cask containing SDS Liner No. D10017 was shipped to Rockwell Hanford Operations, Richland, Washington.

### Major Activities

1. Submerged Demineralizer System (SDS). SDS is currently in a shutdown mode. Approximately 14,500 gallons of reactor coolant system water have been staged to the 'C' reactor coolant bleed tank to await SDS processing.
2. EPICOR II. EPICOR II is currently in a shutdown mode.
3. Reactor Building Entries. Two reactor building entries were conducted this week. The other non-entry days were spent in an evaluation of the polar crane and rigging to determine if they were ready to support the scheduled activities inside the reactor building. The impact of this week's reduced entry activity on the head removal schedule is being evaluated.

The existing concept for removing the head without filling the refueling canal is being re-evaluated following overhead radiation measurements; these indicated that radiation levels under the reactor-vessel head were several times higher than previously predicted. If it is concluded that the "dry" head lift is not feasible, the head lift will be delayed until an alternate head removal method is devised.

The polar crane evaluation has been concluded, and it is anticipated that the five-entry-per-week schedule will resume on March 7. Near-term goals in the reactor building include: (1) removal of the center (No. 8H) control rod drive assembly (by the end of March) to provide an access into the top of the reactor vessel for additional overhead characterization, and (2) a polar crane load test to requalify the crane for lifting the reactor vessel head (in the latter part of March).

4. SDS Liner Shipments. The fifth SDS waste liner (D10017) was shipped from TMI to the Rockwell Hanford facility (Richland, Washington) on March 4, 1983. This 10ft<sup>3</sup> waste zeolite liner, which contained approximately 59,000 curies of mixed fission products, was loaded with a catalytic recombiner to maintain non-combustible gas conditions during

the handling and shipping period. Additionally, the CNS-1-13C Type B shipping cask, designed to withstand transport accidents, was also inerted with nitrogen to provide an added safety margin. The next SDS waste liner (D10018) is currently being prepared for scheduled shipment on March 17, 1983.

5. EPICOR II Prefilter (PF) Shipments. One EPICOR prefilter shipment (PF-10) was made this week to the Idaho National Engineering Laboratory (INEL) in Scoville, Idaho. This shipment represents a total of 29 pre-filters (out of a group of 50) that have been sent to INEL. Two prefilter shipments are scheduled next week.
6. Purification Demineralizer Disposal Status. GPU continued their preparation for collecting resin samples from the "A" and "B" Purification Demineralizer vessels (see the February 28, 1983, Weekly Status Report). The pathway for resin sampling will be via the previously inerted resin fill connection and the diaphragm isolation valve. The sequence of events includes: (1) opening and observing the operation of the diaphragm valve, (2) installation of the valve blocking assembly on the diaphragm valve (this device can also be used to mechanically open the diaphragm valve if the normally used air actuator fails), (3) insertion and collection of resin samples via a vacuum pickup resin collection device (a mechanical resin sampling device will be used as a backup, if significant water is present within the vessels), (4) insertion of a fiber-optics system to inspect and benchmark the level and condition of the resin bed, and (5) removal of all sampling devices from the vessels and isolation of the system by closing both the diaphragm valve and a newly installed isolation ball-valve.

At this time, the resin-fill diaphragm valves on the "A" and "B" Purification Demineralizers have been opened (remotely), and the diaphragm valve seats appear intact and fully operable. A 135 cc liquid sample was collected from the "B" Purification Demineralizer. (The sample was amber in color.) No sample was collected from the "A" Purification Demineralizer. The licensee is preparing to insert a fiber-optic system into the "A" vessel to conduct a detailed visual examination. Preparations are being made to ship the liquid sample to Oak Ridge National Laboratory (ORNL) for analysis.

Future Meeting

On March 17, 1983, the Advisory Panel for the decontamination of TMI Unit 2 will hold a meeting at 7:00 PM, at the Holiday Inn, 23 South Second Street, Harrisburg, Pennsylvania.