

March 21, 1983  
NRC/TMI-83-019

MEMORANDUM FOR: Harold P. 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 March 13, 1983, through March 19, 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

*LHB*  
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Enclosure: As stated

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NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

March 13, 1983 - March 19, 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 5:30 AM, March 18, 1983) (approximate values)

Average Incore Thermocouples\*: 93°F

Maximum Incore Thermocouple\*: 134°F

RCS Loop Temperatures:

	A	B
Hot Leg	85°F	85°F
Cold Leg (1)	73°F	82°F
(2)	75°F	82°F

RCS Pressure: 64 psig

Reactor Building: Temperature: 73°F

Pressure: -0.1 psig

Airborne Radionuclide Concentrations:

6.1 E-7 uCi/cc H<sup>3</sup>  
(sample taken 3/17/83)

6.1 E-9 uCi/cc particulates  
(sample taken 3/17/83)

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 March 11, 1983, through March 17, 1983, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained minute amounts of radioactivity. Calculations indicate that less than forty eight millionths (0.000048) of a curie of tritium were discharged.

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

2. Airborne Effluents

Airborne releases to the environment as measured by licensee installed monitors at discharge stacks are listed below. These releases were well within regulatory limits.

	February 1983	
	<u>Unit II</u>	<u>EPICOR II</u>
Noble Gases (Ci)	5.49	2.67
Particulatates (Ci)	$1.88 \times 10^{-6}$	$3.23 \times 10^{-7}$
Tritium (Ci)	8.04	$1.01 \times 10^{-2}$

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

- The EPA Middletown Office has not received the environmental Kr-85 analytical results for the samples which were taken subsequent to March 4, 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 period from March 9, 1983, through March 17, 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> (uCi/cc)	<u>Cs-137</u> (uCi/cc)
HP-361	March 10 - March 16, 1983	<8.1 E-14	<8.1 E-14

## 5. TMI Occupational Exposure

Licensee TLD (Thermoluminescent Dosimeter) records indicate the following Unit 2 occupational radiation exposures for 1983:

February 1983	40 man-rem
Total 1983 (January-February)	92 man-rem

## 6. Licensee Radioactive Material and Radwaste Shipments

- On March 14, 1983, 137 drums containing contaminated laundry from Units 1 and 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.
- On March 15, 1983, a shipment of two HN-100B Hittman liners containing solidified evaporator bottoms taken from Unit 1 were shipped to U.S. Ecology, Hanford burial site, Richland, Washington.
- On March 15, 1983, another shipment of two HN-100B Hittman liners containing solidified evaporator bottoms taken from Unit 1 were shipped to U.S. Ecology, Hanford burial site, Richland, Washington.
- On March 16, 1983, one box containing two fission chambers and three ion chambers taken from Unit 2 were mailed to Los Alamos National Laboratories, Los Alamos, New Mexico.
- On March 16, 1983, two Hittman liners containing solidified evaporator bottoms taken from Unit 1 were shipped to U.S. Ecology, Hanford burial site, Richland, Washington.
- On March 18, 1983, 71 drums of contaminated laundry from Units 1 and 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.

## 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, and approximately 53,500 gallons of reactor building sump water have been staged to the SDS tank farm, both to await SDS processing.
2. EPICOR II. EPICOR II processed 2,720 gallons of water from the Chemical Cleaning Building Sump on March 15, 1983; the performance parameters are included in Attachment 1.
3. Reactor Building Entries. Five reactor building entries were completed during the week of March 13, 1983. The major tasks during the entries continue to be reactor building decontamination and preparations for the polar crane load test. Decontamination of the reactor building air coolers commenced this week, and this effort is scheduled to continue through next week. The polar crane load test has been delayed from late

March to early April. The delay resulted from revisions to crane operating procedures and other qualifying documents, not hardware problems. A revised test schedule is being prepared.

Four reactor building entries are scheduled next week. Reactor building activities are not scheduled on Thursday, March 24, to prevent conflict with an emergency drill which is scheduled on that day.

4. SDS Liner Shipments. The licensee is continuing preparations for the shipment of the sixth (in a group of twelve) waste zeolite SDS liners. As with previous shipments, this spent SDS liner (D10018) will be vacuum dried, loaded with a catalytic recombiner, and monitored to demonstrate non-combustible gas conditions. Because the vacuum drying period was extended to 10 days, the shipment is now scheduled for March 25, 1983.
5. EPICOR II Prefilter (PF) Shipments. No EPICOR PF shipments were made this week. Two EPICOR liners (PF-33 and PF-29) are scheduled to be shipped next week.
6. Purification Demineralizer Disposal Status. Work is continuing on the fabrication of a special mechanical sampler and guide sleeve for inserting a fiber-optics probe into the "A" purification demineralizer vessel (see the March 14, 1983, Weekly Status Report). The visual inspection and further sampling of the "A" vessel for ion exchange resin material is tentatively scheduled for March 30, 1983. Preparations are continuing for the shipment of the "B" purification demineralizer sample to the Oak Ridge National Laboratory; it is scheduled for March 24, 1983.

### Past Meetings

1. On March 14, 1983, Lake H. Barrett met with the Concerned Mothers of Middletown to discuss TMI related issues. They expressed their concern that TMI Unit 1 should not be restarted prior to completion of the Unit 2 cleanup.
2. On March 17, 1983, the Three Mile Island Advisory Panel held a meeting in Harrisburg. Representatives from the NRC, EPA and DOE provided an update since the last panel meeting of their respective agency's activities. Dr. Bixby from DOE presented a short video tape summarizing the agency's accomplishments at the TMI-2 facility over the past year.

Mr. Gerusky, Director, Pennsylvania Bureau of Radiation Protection provided a detailed summary of the current status of the proposed low-level radioactive waste compact for the Northeast. Under the auspices of the coalition of Northeast Governors (CONEG), the CONEG Policy Working Group completed a draft compact on February 18, 1983, and it was sent to the states for approval by the State legislators. The implications of adoption of a compact or failure to adopt a compact on the TMI-2 cleanup effort were discussed by Mr. Arnold from GPUNC. Mr. Arnold stated that the amount of low level radioactive wastes generated at the TMI-2 facility was approximately equal to that from an operating plant.

### Future Meeting

On April 4, 1983, Lake H. Barrett will meet with the Concerned Mothers of Middletown to discuss TMI related issues.

ATTACHMENT I

EPICOR II PERFORMANCE PARAMETERS  
March 15, 1983

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	$1.6 \times 10^{-3}$	$1.4 \times 10^{-7}$	$1.2 \times 10^4$
Strontium 90	$5.5 \times 10^{-4}$	$8.5 \times 10^{-6}$	$6.5 \times 10^1$
Antimony 125	$5.6 \times 10^{-5}$	$2.7 \times 10^{-7}$	$2.1 \times 10^2$