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NRC PDR
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Site Operations
File

January 24, 1983
NRC/TMI-83-008

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 16, 1983, through January 22, 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

Reviewed and Approved by
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 24, 1983

cc w/encl:
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

OFFICE ▶	TMIPQ <i>Ju/12</i>	TMIPQ <i>Wifebe</i>	TMIPQ <i>BO'Neill</i>	TMIPQ <i>AFasano</i>	TMIPQ <i>Ju/12</i>	TMIPQ <i>LBarrett</i>	
SURNAME ▶	LGage:Jes	JWifebe	BO'Neill	AFasano	RBellamy	LBarrett	
DATE ▶	1/24/83	1/24/83	1/24/83	1/24/83	1/24/83	1/24/83	

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

January 16, 1983 - January 22, 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 21, 1983) (approximate values)

Average Incore Thermocouples*: 89°F

Maximum Incore Thermocouple*: 132°F

RCS Loop Temperatures:

	A	B
Hot Leg	86°F	84°F
Cold Leg (1)	74°F	81°F
(2)	75°F	80°F

Pressure: 62 psig

Reactor Building: Temperature: 67°F

Pressure: -0.1 psig

Airborne Radionuclide Concentrations:

1.0 E-6 uCi/cc H³
- (sample taken 1/20/83)

6.1 E-9 uCi/cc particulates
(sample taken 1/20/83)

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 January 14, 1983 through January 20, 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 two millionths (0.000002) of a curie of cesium and less than two ten-thousandths (0.0002) 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 measures Kr-85 concentrations at several environmental monitoring stations and reported the following results:

<u>Location</u>	<u>Dec. 22, 1982 - Jan. 3, 1983</u> (pCi/m ³)
Goldsboro	27
Middletown	23
Yorkhaven	23
TMI Observation Center	Insufficient for Analysis

- The EPA Middletown Office has not received the environmental Kr-85 results for the samples which were taken subsequent to January 3, 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 periods from January 14, 1983 through January 20, 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</u> (uCi/cc)	<u>Cs-137</u> (uCi/cc)
HP-353	January 12 - 19, 1983	<7.2 E-14	<7.2 E-14

4. Licensee Radioactive Material and Radwaste Shipments

- On January 17, 1983, 85 drums of contaminated laundry from Unit 1 and Unit 2 were shipped to Interstate Uniform Service, New Kensington, Pennsylvania.
- On January 18, 1983, one drum containing Unit 2 leadscrew particulate debris was shipped to Westinghouse Hanford Corporation, Richland, Washington.
- On January 19, 1983, one CNSI-8-120-4 (Type B) shipping cask containing EPICOR Prefilter No. PF-11 was sent to EG&G, Scoville, Idaho.

- On January 19, 1983, one CNSI 21-300 shipping cask containing 21 drums of low specific activity (LSA) waste from Unit 1 and Unit 2 was sent to U.S. Ecology, Richland, Washington.
- On January 20, 1983, one CNSI-8-120-3 (Type B) shipping cask containing EPICOR Prefilter No. PF-19 was sent to EG&G, Scoville, Idaho.
- On January 21, 1983, one box containing lifting ears and bolts for the 1-13C-II shipping cask was sent to Rockwell Hanford, Richland, Washington.
- On January 21, 1983, one 1-13C-II shipping cask containing SDS liner No. D10016 was shipped to Rockwell Hanford, Richland, Washington.

Major Activities

1. Submerged Demineralizer System (SDS). Processing of SDS batch 41 (48,000 gallons of reactor building sump water), which was interrupted on January 7, 1983, to allow the EPICOR II processing of water from the "A" once-through-steam-generator (OTSG), was resumed on January 18, 1983; it is now in progress. In addition, 40,000 gallons of reactor coolant system (RCS) water, which had gone through the RCS "feed and bleed" process, have been staged in the "C" reactor coolant bleed tank (RCBT) to await SDS processing.
2. EPICOR II. EPICOR II completed processing water from the "A" OTSG (EPICOR II batch 151) on January 16, 1983. On January 17, 1983, EPICOR II began processing water from the SDS monitor tanks (effluent from SDS batch 41). Two batches (152 and 153) of this water completed the processing through EPICOR II by January 19, 1983. The EPICOR II performance parameters for the period January 8 to January 19, 1983 are included in Attachment I.
3. Reactor Building Entries. Five reactor building entries were conducted during the week of January 16, 1983. Activities conducted in the reactor building included decontamination of the reactor vessel service structure and an inspection of the polar crane by an NRC consultant. The effectiveness of the service structure decontamination will be evaluated next week. (Pre-decontamination measurement indicated localized hot spots around the service structure cooling fans which were in excess of 10 R/hr.) The polar crane inspection did not identify any hardware deficiencies which could delay the crane recovery schedule.

The licensee is developing plans to remove three motors, each of which move one of the 69 control rod drive mechanisms (CRDM's), from the reactor vessel by the end of February, 1983. The CRDM nozzle openings will then be used as access ports for additional inspections of conditions under the reactor vessel head and on top of the reactor plenum. The task is designed to verify previous radiological measurements; these indicated that the gamma radiation levels above the plenum were in excess of 500 R/hr.

4. SDS Liner Shipments. The second recombiner loaded SDS liner was shipped by the Department of Energy (DOE) to Richland, Washington on January 21, 1983. This radioactive waste liner, which contains approximately 113,000 curies of mixed fission products (predominately as cesium 137 and strontium 90 and their daughter products), is scheduled to arrive at the DOE facility on January 24, 1983. The catalytic-recombiner-loaded liner was monitored at TMI to demonstrate that non-combustible gas mixtures (<1.0% hydrogen gas) and vacuum conditions (<4.0 psia) would be maintained for at least twice the expected handling and shipping period. The licensee is preparing the third recombiner-loaded SDS liner (in a scheduled group of approximately 10) for shipment. This next shipment is scheduled for mid-February 1983.

5. EPICOR II Prefilter Shipments. Two EPICOR II prefilters (PF-11 and PF-19) were shipped from TMI to Idaho National Engineering Laboratory (INEL) this week. (See "Licensee Radioactive Material on Radwaste Shipment" section). These EPICOR shipments bring to a total of 20 (in a group of 49) prefilters that have been shipped to INEL. One prefilter shipment is scheduled for next week. The licensee's current plans are to have the remaining 29 prefilters shipped by September, 1983.

Past Meetings

1. During the ASME week activities January 17-20, 1983, in Sarasota, Florida, Ronald R. Bellamy spoke on TMI related issues.
2. On January 19, 1983, Anthony N. Fasano spoke on the reactor vessel "Quick Look" results at an American Nuclear Society Meeting at Pennsylvania State University, State College campus.

Future Meetings

1. On January 24, 1983, Lake H. Barrett will address the Harrisburg Rotary Club on various TMI issues.
2. 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.
3. On February 7, 1983, Lake H. Barrett will meet with Friends and Family of TMI to discuss various TMI related issues.
4. On February 8, 1983, Lake H. Barrett will meet with the Concerned Mothers of Middletown to discuss TMI related issues.

ATTACHMENT I

EPICOR II PERFORMANCE PARAMETERS
January 8, 1983 to January 19, 1983

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	6.4×10^{-5}	1.7×10^{-7}	3.76×10^2
Strontium 90	1.1×10^{-3}	$<9.2 \times 10^{-6}$	$>1.19 \times 10^2$
Antimony 125	3.4×10^{-3}	$<3.3 \times 10^{-7}$	$>1.03 \times 10^4$