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February 1, 1982
NRC/TMI-82-005

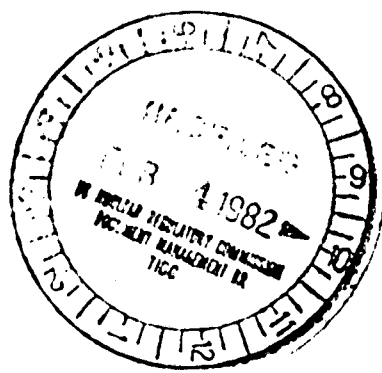
MEMORANDUM FOR: Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Bernard J. Snyder, Program Director
TMI Program Office

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 24, 1982 to January 30, 1982. Major items included in this report are:

- Liquid Effluent Releases
- NRC and EPA Environmental Data
- Radioactive Material and Radwaste Shipments
- Submerged Demineralizer System Status
- EPICOR II
- Reactor Building Entries
- EPICOR II Prefilter Status
- Public Meetings



Lake H. Barrett

Lake H. Barrett
Deputy Program Director
TMI Program Office

Enclosure: As stated

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ORNAME					
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	PDR ADOCK	05000320			
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Harold R. Denton
Bernard J. Snyder

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February 1, 1982

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NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

January 24, 1982 - January 30, 1982

Plant Status

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

Available Core Cooling Modes: Decay heat removal systems. Long term cooling "B" (once through steam generator-B).

RCS Pressure Control Mode: Standby pressure control (SPC) system.

Backup Pressure Control Modes: Mini decay heat removal (MDHR) system. Decay heat removal (DHR) system.

Major Parameters (as of 0600, January 29, 1982) (approximate values)

Average Incore Thermocouples: 106°F

Maximum Incore Thermocouple: 136°F

RCS Loop Temperatures:

	A	B
Hot Leg	97°F	100°F
Cold Leg (1)	77°F	80°F
(2)	80°F	84°F

RCS Pressure: 96 psig

Reactor Building: Temperature: 61°F
Water level: Elevation 285.2 ft. (2.7 ft. from floor)
Pressure: -0.15 psig
Airborne Radionuclide Concentrations:
5.0×10^{-6} Kr85
5.7×10^{-9} H3
(samples taken 1/28/82)

Effluent and Environmental (Radiological) Information

1. Liquid effluents from the TMI site released to the Susquehanna River after processing, were made within the regulatory limits and in accordance with NRC requirements and City of Lancaster Agreement dated February 27, 1980.

During the period January 22, 1982, through January 28, 1982, 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 millionth (0.000001) of a curie of cesium was discharged.

2. Environmental Protection Agency (EPA) Environmental Data. Results from EPA monitoring of the environment around the TMI site were as follows:

- The EPA measured Kr-85 concentrations (pCi/m³) at several environmental monitoring stations and reported the following results:

<u>Location</u>	<u>December 28, 1981 - January 11, 1982</u> (pCi/m ³)
Goldsboro	29
Observation Center	22
Middletown	27
Yorkhaven	22

All of the above levels of Kr-85 are considered to be background levels.

- 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 January 20, 1982, through January 28, 1982.

3. NRC Environmental Data. Results from NRC monitoring of the environment around the TMI site were as follows:

- 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-304	January 20, 1982 - January 28, 1982	<5.4 E-14	<5.4 E-14

4. Licensee Radioactive Material and Radwaste Shipments.

- On Tuesday, January 26, 1982, one drum containing two, 1-foot sections of Unit 1 steam generator tubes was shipped to Battelle-Columbus Laboratory, Columbus, Ohio.
- On Wednesday, January 27, 1982, 34 one liter Unit 1 samples, taken from various tanks and locations, e.g. core flood tanks, bleed tanks, reactor building spray pumps, etc., were shipped in 14 containers to Babcock and Wilcox (B&W), Lynchburg, Virginia.
- On Wednesday, January 27, 1982, one drum containing four, 1-foot sections of Unit 1 steam generator tubes was shipped to Babcock and Wilcox (B&W), Lynchburg, Virginia.

-- On Wednesday, January 27, 1982, seven drums and one LSA container (box), containing steam generator inspection and repair equipment, were returned to Babcock and Wilcox (B&W), Lynchburg, Virginia.

Major Activities

1. Submerged Demineralizer System (SDS). Processing of batch 17 was completed on January 29, 1982. On January 30, 1982, the transfer of batch 18 from the reactor building sump was commenced. SDS performance parameters for batch 17 are included in Attachment 1.

The radioactivity in the spent fuel pool water is now approximately 6×10^{-3} uc/ml (gross β - γ activity). The supplemental spent fuel pool cleanup system is expected to become operational during the next report period.

2. EPICOR II. The EPICOR II system continued to process SDS effluent during the week. Performance parameters are enclosed.

3. Reactor Building Entries. One of two scheduled reactor building (RB) entries was completed during the last week in January. Tasks performed during the completed entry included video taping of areas in the RB and additional testing of neutron source range monitor, NI-2. The scheduled load test of the crane mounted supports for the power lift was not performed. The second of the two scheduled entries was cancelled after the RB purge was secured due to problems in the purge train electrical power supply.

The electrical problems in the RB purge system have been repaired and RB entries are scheduled to resume during the first week in February. In addition to load testing, the power lift supports during the entries next week, the power lift will be assembled in the RB and work will commence to ensure that fire fighting stations inside the RB are operable.

A site NRC Radiation Specialist with the TMI Program Office will participate in the next reactor building entry. The inspector will perform independent radiological measurements to verify the licensee's information. Also, an independent verification of general conditions in the RB will be made. The licensee performance and compliance with radiological safety requirements will be verified under actual working conditions in the RB.

4. EPICOR II Prefilter Status. Forty-nine first stage prefilter (PF) EPICOR II liners are currently stored in the onsite solid waste storage facility. These 4' x 4' PF liners were generated during the processing of auxiliary building water (approximately 500,000 gallons) after the March 28, 1979 accident. Typically these liners contain 40 ft³ of ion exchange media with radioactivity loadings from 200 to 1,300 curies predominately as cesium-137. A drawing of the solid waste storage facility with liner locations is included as Attachment 2.

DOE, through the July 1981 memorandum of understanding with NRC, has agreed to accept these 49 EPICOR II PF for R&D purposes and for final disposition. One of the higher activity liners (PF-16) was shipped by DOE to Battelle Columbus Laboratories on May 19, 1981, for detailed analysis. These analysis indicated no significant degradation of liner integrity nor ion exchange media. Measurable amounts of hydrogen gas generation in the prefilter were confirmed; however, oxygen which is necessary for a combustible mixture, was also confirmed to be depleted to a level to preclude any internal combustion or explosion. Because of the hydrogen inventory, GPU has instituted procedural controls and monitoring to assure no flammable condition nor ignition sources exist at the storage module area.

The licensee's current program for shipping these 49 prefilters includes steps for inerting, sampling and integrity inspection. A special inerting tool has been developed and tested at the Idaho National Laboratory for use by GPU. This tool, which is scheduled for shipment to TMI in early February, will both purge the excess hydrogen gas and inert the liner with a nitrogen cover gas. After inerting and leak testing, the liners will be shipped individually to the Idaho National Laboratory in standard type "B" shipping casks which are designed to withstand transportation accidents. GPU is currently developing support hardware and procedures for the inerting and handling evolutions. The first EPICOR II prefilter (PF-2) inerting is tentatively scheduled to begin in late April 1982. Shipments should begin in early May 1982.

Meetings Held

1. The NRC's Advisory Panel for the Decontamination of TMI Unit 2 met on January 28, 1982, in Harrisburg. Status reports were given by GPU, NRC, EPA, DOE, and comments were offered by several members of the public. EPA representatives stated that their Agency was not reducing operations at TMI despite nationwide reductions in many of EPA's programs. Dauphin County Commissioner Larry Hachendoner supported decoupling the Unit 1 startup from the Unit 2 cleanup by applying the Deferred Energy Surcharge which is due to expire in June 1982, toward the cleanup. No date has been set for a future meeting.
2. On Friday, January 29, 1982, Lake Barrett met with a group of area mothers to discuss various TMI issues, including the status of Unit 1 steam generator tube conditions, the forthcoming decontamination experiment, and the financial problems.

Future Meetings

1. On Friday, February 26, 1982, Lake Barrett will be speaking for the dinner meeting being held by the Engineers Week Joint Planning Council to honor Lehigh Valley's Engineer of the Year and Young Engineer of the Year.
2. On Saturday, March 13, 1982, Lake Barrett will address the Society of Manufacturing Engineers in Williamsport, PA, on the cleanup of TMI and general aspects of nuclear power.

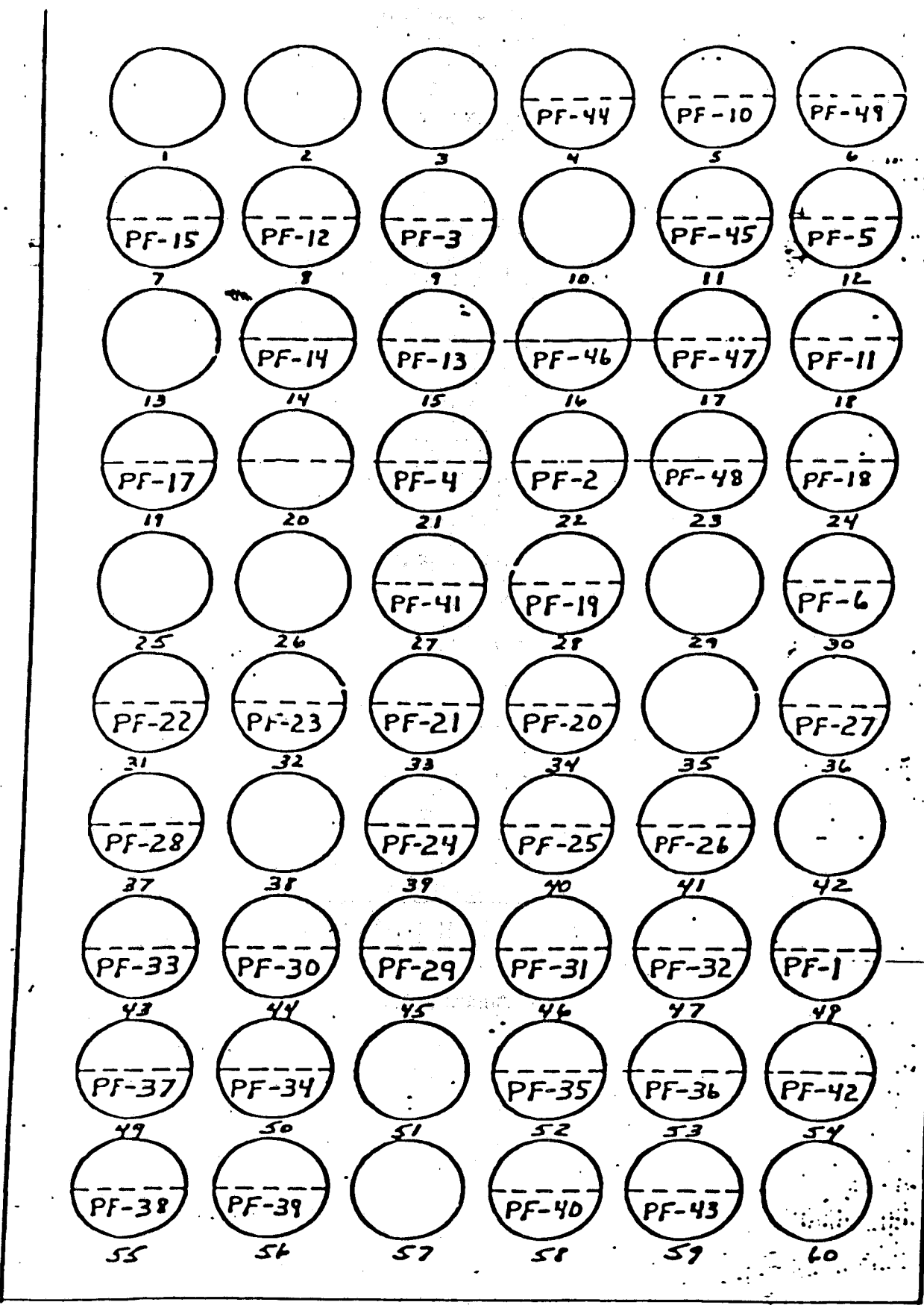
ATTACHMENT I

SDS Performance for Batch Number 17

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	94	9.1×10^{-4}	$1. \times 10^5$
Strontium 90	3.0	7.6×10^{-3}	$4.0. \times 10^2$

EPICOR II Performance
January 11, 1982 to January 28, 1982

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	9.6×10^{-4}	$<2.6 \times 10^{-7}$	$>3.4 \times 10^3$
Strontium 90	6.2×10^{-3}	4.8×10^{-6}	1.3×10^3
Antimony 125	1.1×10^{-2}	$<4.1 \times 10^{-7}$	$>2.5 \times 10^4$



MODULE A

1	2	3	4	5	6
7	8	9	10	11	12 UI 50 ft ³
13	14 K-4 12/21/81	15 F-20 12/28/81	16 F23 1/8/82	17 F25 1/28/82	18
19	20 F21 12/31/81	21 F22 1/5/82	22 F24 1/12/82	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53 PF-8	54 PF-50
55	56 CNSI 2009?	57	58 PF-9	59	60 PF-7

MODULE B

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February 8, 1982
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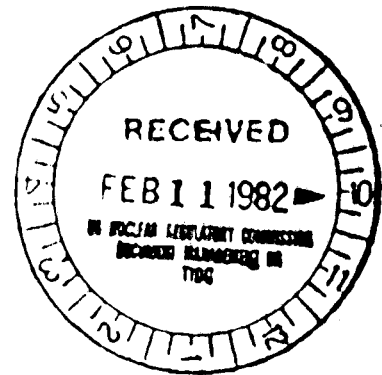
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TMI Program Office

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 31, 1982 to February 6, 1982. Major items included in this report are:

- Liquid Effluent Releases
- NRC and EPA Environmental Data
- Radioactive Material and Radwaste Shipments
- Submerged Demineralizer System Status
- EPICOR II
- Reactor Building Entries
- TMI Unit 1 developments
- 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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February 7, 1982

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