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July 12, 1982  
NRC/TMI-82-043

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 July 4 - 10, 1982. 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
- Reactor Coolant System Feed and Bleed
- Reactor Building Entries

-original signed by-  
A. N. Fasano for/  
Lake H. Barrett  
Deputy Program Director  
TMI Program Office

Enclosure: As stated

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DATE ▶							

Harold R. Denton  
Bernard J. Snyder

July 12, 1982

cc w/encl:

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DPRP Chief, RI

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OFFICE	TMIPD <i>July</i>	TMIS <i>Waffen</i>	TMIS <i>grad 20</i>	TMIS <i>Asano</i>	TMIPD <i>July</i>	TMIPD <i>July 20</i>
SURNAME	Lage/Imp	RConte	MShanbaky	AFasano	RBellamy	ARR LBarrett
DATE	7/14/82	7/9/82	7/9/82	7/9/82	7/9/82	7/9/82

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

July 4, 1982 - July 10, 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 (DHR) systems, Mini DHR (MDHR) system.

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

NOTE: During Reactor Coolant System feed and bleed, pressure will be maintained with a Reactor Coolant Bleed Tank Pump. Automatic back up pressure control will be provided by the SPC system.

Backup Pressure Control Modes: MDHR and DHR system.

Major Parameters (as of 0600, July 9, 1982) (approximate values)

Average Incore Thermocouples: 102°F  
Maximum Incore Thermocouple: 124°F

RCS Loop Temperatures:

	A	B
Hot Leg	96°F	99°F
Cold Leg (1)	88°F	84°F
(2)	91°F	86°F

Pressure: 68 psig

NOTE: During reactor coolant system feed and bleed, pressure is maintained at approximately 70 psig.

Reactor Building: Temperature: 76°F

Pressure: -0.6 psig

Airborne Radionuclide Concentrations:

4.1 E-7 uCi/cc H<sup>3</sup>  
(sample taken 7/7/82)

9.0 E-6 uCi/cc Kr<sup>85</sup>  
(sample taken 7/7/82)

7.1 E-10 Ci/cc particulates  
(sample taken 7/8/82)

1. Effluent and Environmental (Radiological) Information

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 July 2, 1982, through July 8, 1982, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained no detectable radioactivity.

2. Environmental Protection Agency (EPA) Environmental Data

-- The EPA Middletown Office has not received the environmental Kr-85 analytical results for the samples which were taken June 12, 1982, through June 25, 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 period from June 30, 1982, through July 8, 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> <u>(uCi/cc)</u>	<u>Cs-137</u> <u>(uCi/cc)</u>
HP-326	June 30, 1982 - July 7, 1982	<6.6 E-14	<6.6 E-14

4. Licensee Radioactive Material and Radwaste Shipment

-- On Wednesday, July 7, 1982, two safety valves and one pilot operated relief valve (PORV) from Unit 1 were shipped to Wyle Laboratory, Huntsville, Alabama.

-- On Thursday, July 8, 1982, 42 drums containing Unit 1 and Unit 2 contaminated laundry were shipped to Tri-State Industrial Laundries, Utica, New York.

### Major Activities

1. Submerged Demineralizer System (SDS). Processing of SDS Batch 31 (consisting of approximately 50,000 gallons), which began July 1, 1982, was completed July 8, 1982. SDS performance parameters for Batch 31 are included in Attachment 1.
2. EPICOR II. The EPICOR II system is currently shutdown on a standby status.
3. Reactor Coolant System (RCS) Feed and Bleed. The fifth feed and bleed cycle of the RCS water is scheduled to begin July 12, 1982. This batch will consist of approximately 30,000 gallons. It will be the last cycle before beginning the "Quick-Look" experiment (refer to paragraph 4).
4. Reactor Building Entries.

Three reactor building entries have been scheduled for next week (July 12, 14, and 15, 1982). During these entries the primary system will be vented and depressurized in preparation for inserting a closed circuit television camera into the reactor through a control rod drive mechanism (the "Quick-Look" experiment). The camera insertion and television inspection of the reactor vessel upper internals is scheduled for July 21, 1982.

Primary system venting and depressurization is scheduled to commence on July 14, 1982. Measurements based on primary system compressibility indicate that there are 370 standard cubic feet of free gas in the primary system. This information, correlated with primary system water-sample data, indicates that 30 curies of krypton-85 gas and 145 standard cubic feet of hydrogen may be released to the reactor building during the venting. The reactor building purge (approximately 20,000 cubic feet per minute) will be operating during the primary system venting. Calculations indicate that the krypton discharge to the environment during the purge will be well below regulatory limits. Provisions have been made to dilute the gases at the vent points to minimize any hazard to the personnel assigned to manipulate the vent valves.

ATTACHMENT I

SDS PERFORMANCE FOR BATCH NUMBER 31  
(Reactor Coolant System Water)

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	4.5	$4.0 \times 10^{-4}$	$1.1 \times 10^4$
Strontium 90	8.0	$4.2 \times 10^{-2}$	$1.9 \times 10^2$