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July 26, 1982
NRC/TMI-82-045

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 18 - 24, 1982. Major items included in this report are:

- Liquid Effluents
- EPA and NRC Environmental Data
- Radioactive Material and Radwaste Shipments
- TMI Occupational Exposure
- Submerged Demineralizer System Status
- EPICOR II
- Reactor Coolant System Feed and Bleed
- Reactor Building Entries - Core Inspection
- EPICOR II Prefilter Shipment
- Public Meetings

*Original signed by
Lake H. Barrett*

Lake H. Barrett
Deputy Program Director
TMI Program Office

Enclosure: As stated

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DATE							

Harold R. Denton
Bernard J. Snyder

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July 26, 1982

cc w/encl:
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Commissioner's Technical Assistants
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DATE ▶	7/24/82	7/26/82	7/26/82	7/24/82	7/24/82	7/26/82

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

July 18, 1982 - July 24, 1982

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: RCS is vented to the reactor building.

Major Parameters (as of 0545, July 23, 1982) (approximate values)

Average Incore Thermocouples: 112°F

Maximum Incore Thermocouple: 130°F

RCS Loop Temperatures:

	A	B
Hot Leg	96°F	100°F
Cold Leg (1)	93°F	85°F
(2)	95°F	87°F

Pressure: The reactor coolant system is vented to the reactor building.

Reactor Building: Temperature: 84°F
Pressure: -0.40 psig
Airborne-Radionuclide Concentrations:

5.5 E-7 uCi/cc H³
(sample taken 7/15/82)

9.0 E-6 uCi/cc Kr⁸⁵
(sample taken 7/7/82)

1.4 E-9 Ci/cc particulates
(sample taken 7/21/82)

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 16, 1982, through July 22, 1982, the effluents contained no detectable radioactivity at the discharge point although individual effluent sources which originated within Unit 2 contained small amounts of radioactivity. Calculations indicate that less than five hundred-thousandths (0.00005) of a curie of tritium were discharged.

2. Environmental Protection Agency (EPA) Environmental Data

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

<u>Location</u>	<u>June 11, 1982 through June 26, 1982</u> (pCi/m ³)
Goldsboro	28
Middletown	24
Yorkhaven	30
TMI Observation Center	30

-- The EPA Middletown Office has not received the environmental Kr-85 analytical results for the samples which were taken June 26, 1982, through July 9, 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 July 14, 1982, through July 22, 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-328	July 14, 1982 - July 21, 1982	<6.5 E-14	<6.5 E-14

4. Licensee Radioactive Material and Radwaste Shipments

No shipments of radioactive material or radwaste were made during this reporting period.

5. TMI Occupational Exposure

Licensee TLD (Thermoluminescent Dosimeter) records indicate the following Unit 2 occupational radiation exposures for 1982:

June 1982	20 man-rem
Total 1982 (January-June)	159 man-rem

Man-rem is an expression for the summation of whole body doses to individuals in a group. Thus, if each member of a population group of 1,000 people were to receive a dose of 0.001 rem (1 millirem), or if two people were to receive a dose of 0.5 rem (500 millirem) each, the total man-rem dose in each case would be one man-rem.

Major Activities

1. Submerged Demineralizer System (SDS). Processing of batch 32 (the fifth batch of RCS water) began on July 19, 1982, with expected completion on July 25, 1982. Parameters for this batch will be included in the report for next week.
2. EPICOR II. The EPICOR II system is currently shutdown on a standby status.
3. Reactor Coolant System (RCS) Feed and Bleed. The feed and bleed process is on hold until completion of the "Quick Look" activities (which are summarized in the next paragraph).
4. Reactor Building Entries - Core Inspection. The closed circuit television inspection of the reactor core (the "Quick Look" inspection) was performed on Wednesday, July 21, 1982. The TV camera was lowered through the center control rod leadscrew orifice. The camera field of view was limited, by water turbidity, to two or three inches. As the camera was inserted through the upper plenum of the reactor, the control rod support components could be identified, although their condition could not be ascertained. When the camera was lowered into the core region, the observers could identify rubble approximately five feet below the top of the core. No structural components could be seen above the rubble. The lateral field of view of the camera was very limited; therefore, the lateral extent of the area that was void of structural components could not be ascertained.

Except for a control rod spider assembly (which may have detached from the leadscrew during uncoupling), no structural components could be identified in the core rubble during the initial reviews of the TV pictures.

Water samples from the area above the core region indicated that the boron concentration was in excess of 3800 ppm. Incore thermocouple temperature indicators show that the average incore temperature has increased from approximately 102°F to 109°F (<2 degrees/day) since the primary water level was lowered. (Approximately 20,000 gallons of primary system water were drained to a reactor coolant bleed tank as part of the "Quick Look" inspection.)

The primary system remains depressurized and partially drained following the "Quick Look". The licensee is evaluating a tape of the TV transmission to determine the next course of action.

5. EPICOR II Prefilter Shipment. The first sampling and inerting of an EPICOR II prefilter (PF) is still scheduled to begin the week of July 26, 1982. The NRC is currently reviewing both the operating procedures and shipment criteria, in preparation for the August 10, 1982 shipment of the first EPICOR II PF liner to the Battelle-Columbus Laboratory.

Public Meetings

1. On Wednesday, July 28, 1982, Lake Barrett will meet with the Middletown Mothers to discuss TMI related issues.
2. In August 1982, Ronald R. Bellamy will present a paper entitled "HEPA Filter Experience During TMI-2 Reactor Building Purges" at the 17th DOE Nuclear Air Cleaning Conference, Denver, Colorado.