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April 19, 1982
 NRC/THI-82-022

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

FROM: Lake H. Barrett, Deputy Program Director
 THI Program Office

SUBJECT: NRC THI PROGRAM OFFICE WEEKLY STATUS REPORT



Enclosed is the status report for the period of April 10, 1982 to April 17, 1982. Major items included in this report are:

- Liquid Effluents
- NRC and EPA Environmental Data
- Radioactive Material and Radwaste Shipments
- THI Occupational Exposure
- Submerged Demineralizer System Status
- EPICOR II
- Reactor Coolant System Water Processing
- Reactor Building Entries
- Groundwater Monitoring Status
- Public Meetings

Original signed by
 Lake H. Barrett

Lake H. Barrett
 Deputy Program Director
 THI Program Office

Enclosure: As stated

OFFICE							
IRNAME							
DATE	8.2.0.4	29.0.546					

Harold R. Danton
Bernard J. Snyder

-2-

April 19, 1982

cc w/encl:

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NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

April 11, 1982 - April 17, 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 0500, April 16, 1982) (approximate values)

Average Incore Thermocouples: 101°F
Maximum Incore Thermocouple: 128°F

RCS Loop Temperatures:

	A	B
Hot Leg	96°F	99°F
Cold Leg (1)	81°F	83°F
(2)	85°F	87°F

RCS Pressure: 96 psig

Reactor Building: Temperature: 65°F
Water level: Elevation 283.2 ft. (0.5 ft. from floor)
Pressure: -.74 psig
Airborne Radionuclide Concentrations:
2.0 E-7 uCi/cc H³
(sample taken 3/31/82)
4.1 E-6 uCi/cc Kr⁸⁵
(sample taken 3/30/82)

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 April 9, 1982, through April 15, 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 March 12, 1982, through April 2, 1982, from the EPA's Counting Laboratory at Las Vegas, Nevada. When these results become available, they 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 April 7, 1982 through April 15, 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-315	April 7, 1982 - April 14, 1982	<6.3 E-14	<6.3 E-14

4. Licensee Radioactive Material and Radwaste Shipments

- On Thursday, April 15, 1982, 45 drums containing Unit 1 and Unit 2 contaminated laundry were shipped to Tri-State Industrial Laundries, Utica, New York.

5. TMI Occupational Exposure

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

March 1982	55 man-rem*
Total 1982 (January-March)	101 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). The SDS is shutdown for minor maintenance.
- 2. EPICOR II. The EPICOR II System is shutdown because of lack of water to be processed.
- 3. Reactor Coolant System (RCS) Water Processing. The NRC TMI/PO site office has received for review approximately 85% of the procedures needed to commence RCS water processing. Approximately 75% of these have been approved, approximately 15% have been returned to the licensee for comment resolution and approximately 10% are in the process of being reviewed.

The NRC TMI/PO has received a request by the licensee to revise the Recovery Operations Plan to incorporate changes to accomodate RCS processing.

- 4. Reactor Building Entries. The reactor building entry scheduled for Wednesday, April 14, 1982, was aborted when the first person to enter the building, a health physics technician, experienced problems with the airlock door mechanisms while exiting the building. The technician first attempted to open the doors in the normally used personnel airlock, and then the doors in the equipment hatch airlock. The equipment hatch airlock is designated as the alternate reactor building egress route. Both airlocks appeared inoperable. The technician eventually exited the reactor building through the normally used airlock by manually defeating a differential pressure interlock which malfunctioned and disabled the door opening sequence. The technician stayed in the reactor building for a total of 63 minutes and accumulated 89 mR of exposure.

Following the entry, a leak test of the airlock door seals indicated that the equipment hatch door seals were leaking excessively (the leak path is into the reactor building since the reactor building is maintained at a negative pressure). A second entry was made at 11:58 PM on April 14, 1982, to repair the equipment hatch airlock seals. An HRC staff member was present to monitor the entry. The door mechanisms in both airlocks are being repaired and it is expected that the next scheduled entry into the reactor building will take place on Thursday, April 22, 1982. The entry tasks on Thursday will be the same as those scheduled for the aborted entry.

- 5. Groundwater Monitoring Program. The licensee is continuing a program of increased surveillance frequency of the on-site test borings. An objective of this systematic program is to identify the source of tritium in test boring numbers 2, 3, and 17. In addition to samples taken by the licensee, the NRC has also taken independent samples. The NRC's samples were taken on April 8, 1982 and sent to the Analytical Chemistry Laboratory, Department of Energy, Idaho Falls, Idaho, and to the US NRC Region I Laboratory, King of Prussia, Pennsylvania. The analytical results of these samples are expected shortly. The NRC has also requested that the Environmental Protection Agency obtain samples from the test borings for further independent analysis.

Past Meetings

1. A meeting was held on April 14, 1982, between members of the NRC staff and members of Three Mile Island Alert and Newberry Township TMI Steering Committee. The NRC staff and their consultants for the Unit 1 Psychological Stress study received input useful for scoping the Psychological Stress study related to the TMI-1 Restart.
2. A meeting was held on April 15, 1982, between members of the NRC staff and members of TMI Friends and Family. The NRC staff and their consultants for the Unit 1 Psychological Stress study received input useful for scoping the Psychological Stress study related to the TMI-1 Restart.
3. On Wednesday, April 14, 1982, Lake Barrett addressed the Southern Pennsylvania Association of Occupational Health Nurses in York, PA. Topics of discussion were radiation health effects, emergency planning and the TMI Unit 2 cleanup progress.

Future Meetings

1. On Thursday, April 22, 1982, the TMI Advisory Panel for the decontamination of TMI Unit 2 will hold a meeting in Harrisburg at the Holiday Inn located at Second and Chestnut Street, to discuss the current status of the plant cleanup program.
2. On Tuesday, April 27, 1982, Lake Barrett will meet with a group of Middletown mothers to discuss issues and concerns related to the cleanup program at TMI Unit 2, the status of Unit 1, and the financial status of GPU Nuclear.