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December 21, 1981  
 NRC/TMI-31-074



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 December 20, 1981 to December 26, 1981. 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 Integrity Assessment Program
- Public Meetings

NOTE: Due to the holidays, there will be no Weekly Status Report next week. The next status report will be released on January 11, 1982 and will cover the period December 27, 1981 to January 9, 1982.

Lake H. Barrett  
 Deputy Program Director  
 TMI Program Office

Enclosure: As stated

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|               |         |           |         |          |          |
|---------------|---------|-----------|---------|----------|----------|
| ▶ TMI         | TMIPO   | TMIPO     | TMIPO   | TMIPO    | TMIPO    |
| ▶ GKahlan/jes | RConte  | MShanbaky | AFasano | RBellamy | LBarrett |
| ▶ 12/ /81     | 12/ /81 | 12/ /81   | 12/ /81 | 12/ /81  | 12/ /81  |

Harold R. Denton  
Bernard J. Snyder

-2-

December 28, 1981

cc w/encl:

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# NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

December 20 - December 26, 1981

## 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 0400, December 28, 1981) (approximate values)

Average Incore Thermocouples: 110°F

Maximum Incore Thermocouple: 135°F

RCS Loop Temperatures:

|              | A     | B     |
|--------------|-------|-------|
| Hot Leg      | 101°F | 104°F |
| Cold Leg (1) | 72°F  | 82°F  |
| (2)          | 71°F  | 88°F  |

RCS Pressure: 96 psig

Reactor Building: Temperature: 61°F

Water level: Elevation 286.5 ft. (4.0 ft. from floor)

Pressure: -0.2 psig

Airborne Radionuclide Concentrations:  $6.6 \times 10^{-9}$   $\mu\text{Ci/cc H}^3$   
 $5.3 \times 10^{-6}$   $\mu\text{Ci/cc Kr85}$   
(Sample taken 12/9/81)

## 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 December 18, 1981, through December 24, 1981, 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. Results from EPA monitoring of the environment around the TMI site were as follows:

- The EPA measured KR-85 concentrations ( $\text{pCi/m}^3$ ) at several environmental monitoring stations and reported the following results:

| <u>Location</u>    | <u>November 20-December 4, 1981</u><br>( $\text{pCi/m}^3$ ) |
|--------------------|---|
| Goldsboro          | 24  |
| Observation Center | 23  |
| Middletown         | 23  |
| Yorkhaven          | 30  |

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 EPA's air and gamma rate networks during the period from December 16, 1981, through December 23, 1981.

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><br>( $\text{uCi/cc}$ ) | <u>Cs-137</u><br>( $\text{uCi/cc}$ ) |
|---------------|---------------------------|-------------------------------------|--------------------------------------|
| HP-299        | December 17 - December 23 | <7.8 E-14                           | <7.8 E-14                            |

3. Licensee Radioactive Material and Radwaste Shipments.

- On Wednesday, December 23, 1981, 44 drums of Unit 1 and Unit 2 contaminated laundry were shipped to Tri-State Industrial Laundry Inc., Utica, New York.
- On Wednesday, December 23, 1981, two steam generator tube samples from Unit 1 were shipped to Battelle-Columbus Labs, West Jefferson, Ohio.
- On Thursday, December 24, 1981, two steam generator tube samples from Unit 1 were shipped to Babcock and Wilcox (B&W), Lynchburg, Virginia.

### Major Activities

1. Submerged Demineralizer System (SDS). From December 19, 1981 to December 20, 1981, approximately 45,000 gallons of water were transferred from the reactor building sump. The total amount of water transferred from the reactor building sump as of December 26, 1981 is approximately 340,000 gallons. Processing of Batch 14 commenced on December 21, 1981. SDS performance parameters for Batch 14 will be included in the next report.
2. EPICOR II. EPICOR II processing of SDS effluent continued this week. Performance parameters will be included in the next report.
3. Reactor Building Integrity Assessment Program. Analyses results have been received from ground water samples which were taken at the various site ground water monitoring locations through October 7, 1981. The sample analyses indicate that the activity in the latest samples is within the range of values identified during the course of the sampling program which began in early 1980.

The latest analyses indicate that tritium concentrations in the East Dike Catch Basin and in the test borings have remained slightly above background. Test Boring 2 has historically shown periodic positive indications of minute quantities of cesium. The highest radioactive cesium concentrations in Test Boring 2, detected in a sample taken in February 1981, were approximately 370 pCi/L of cesium 137 and 135 pCi/L of cesium 134. The most recent gamma scan of water from Test Boring 2 (sample taken November 4, 1981) indicates a  $35 \pm 9.1$  pCi/L concentration of cesium 137. No cesium 134 was detected in the sample. A sample of water taken from Test Boring 4 on September 2, 1981, indicated a trace amount of cesium 137. However, a re-analysis of this sample showed no detectable cesium 137.

Composite samples from each of the test borings and the East Dike Catch Basin (EDCB) are analyzed quarterly for radioactive strontium. An analysis of samples collected from April 1, 1981 to June 24, 1981, indicated that strontium was below detectable limits in all monitoring locations except the EDCB. The composite sample from the EDCB indicated a strontium 90 concentration of approximately 1 pCi/L (slightly above the lower limit of detection).

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.
3. The NRC's Advisory Panel for the Decontamination of TMI Unit 2 will be meeting on January 13, 1982, and January 28, 1982, from 7:00 p.m. to 10:00 p.m. at the Holiday Inn, 23 South Second Street in Harrisburg. The meetings will be open for public observation. At both meetings, the Panel will discuss alternative strategies for assuring financial resources to complete the TMI-2 cleanup.