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December 14, 1981  
 NRC/TMI-81-070

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 6, 1981 to December 12, 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 Entries
- Emergency Drill
- 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	12/14/81	12/14/81	12/14/81	12/14/81	12/14/81	12/14/81

Harold R. Denton  
Bernard J. Snyder

-2-

December 14, 1981

cc w/encl:

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# NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

December 6 - December 12, 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 0500, December 11, 1981) (approximate values)

Average Incore Thermocouples: 111°F

Maximum Incore Thermocouple: 136°F

RCS Loop Temperatures: (The last cycle of natural circulation occurred in the "B" loop on 12/9/81 and in the "A" loop on 12/11/81)

	A	B
Hot Leg	104°F	107°F
Cold Leg (1)	70°F	81°F
(2)	70°F	87°F

RCS Pressure: 95 psig

Reactor Building: Temperature: 62°F  
Water level: Elevation 287.2 ft. (4.7 ft. from floor)  
via penetration 401 manometer  
Pressure: -0.2 psig  
Concentration:  $5.3 \times 10^{-6}$  uCi/cc Kr-85  
(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 4, 1981, through December 10, 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 6 - November 20, 1981</u> ( $\text{pCi/m}^3$ )
Goldsboro	22
Observation Center	23
Middletown	30
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 the EPA's air and gamma rate networks during the period from December 2, 1981, through December 10, 1981.

3. NRC Environmental Data. The Environmental Protection Agency's counting system on which the NRC's air samples are counted is out of service for repairs. Analytical results will be reported in a future weekly status report when they become available.

4. Licensee Radioactive Material and Radwaste Shipments.

- On Monday, December 7, 1981, three packages each containing one liter samples from the Unit 1 waste evaporator condensate storage tank were mailed to Teledyne Isotopes, Westwood, New Jersey.
- On Monday, December 7, 1981, an EPICOR II dewatered resin liner (F-14) was shipped to U.S. Ecology, Hanford, Washington.
- On Tuesday, December 8, 1981, an EPICOR II dewatered resin liner (F-15) was shipped to U.S. Ecology, Hanford, Washington.
- On Wednesday, December 9, 1981, 20 metallic boxes of Unit 1 LSA waste were shipped to U.S. Ecology, Hanford, Washington.
- On Friday, December 11, 1981, an EPICOR II dewatered resin liner (F-16) was shipped to U.S. Ecology, Hanford, Washington.
- On Friday, December 11, 1981, two Unit 1 solidified evaporator bottoms were shipped to U.S. Ecology, Hanford, Washington.
- On Saturday, December 12, 1981, 105 55 gallon drums of Unit II laundry were shipped to Utica, New York.

## Major Activities

1. Submerged Demineralizer System (SDS). Processing of batch number 12 was completed on December 9, 1981. During December 9, 1981, to December 11, 1981, approximately 50,000 gallons of reactor coolant bleed tank water (batch number 13) were transferred to the SDS feed tanks in the fuel handling building. To date, approximately 290,000 gallons of reactor building sump water have been transferred from the reactor building sump and processed. Transfers of reactor building sump water are expected to continue following the processing of batch number 13. SDS performance parameters for batch 12 are attached.
2. EPICOR II. Processing of SDS effluent through the EPICOR II system continued this week. Approximately 290,000 gallons of reactor building sump water have been polished. Recent performance parameters for EPICOR II are attached.
3. Reactor Building Entries. Reactor building entry 24 was completed on December 9, 1981. Tasks were performed in preparation for the gross decontamination experiment. Specific tasks accomplished were (1) placement of splash covers over various equipment including the Power Operated Relief Valve (PORV) and the block valve, (2) an inventory of transient combustible materials, (3) repair and repositioning of closed circuit television cameras, (4) fixed point radiological surveys and air sampling, and (5) placement of thermoluminescent dosimeters and iodine samplers.  
  
The entry scheduled for December 11, 1981, has been cancelled. The next entry is tentatively scheduled for December 15, 1981.
4. Emergency Drill. On December 10, 1981, the licensee conducted the annual exercise of the TMI-2 Emergency Plan by simulating a site emergency. NRC onsite staff also participated in the drill. Preliminary results from the licensee conducted critique indicate a satisfactory drill.

### Meetings Held

The NRC's Advisory Panel for the decontamination of TMI Unit 2 met on December 10, 1981, in Lancaster. The major topic of discussion was the financial problems that are hindering the pace of the cleanup of Unit 2. Presentations were made by GPU, NRC and EPA on the status of their activities. Comments on the progress of various proposed solutions to the financial impasse were presented by GPU, Edison Electric Institute (EEI), TMI Alert and Lancaster Environmental Action Federation (LEAF). The next meeting will continue the discussion on the financial situation.

### 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 is scheduled to meet on January 13 and January 28, 1982, at the Holiday Inn, 2nd and Chestnut Street, Harrisburg, PA, from 7:00 to 10:00 PM.

ATTACHMENT

SDS Performance for Batch Number 12  
(Reactor Coolant Bleed Tank Water)

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	19.0	$3.3 \times 10^{-3}$	$5.7 \times 10^3$
Strontium 90	0.92	$2.2 \times 10^{-2}$	$4.1 \times 10^1$

EPICOR II Performance for Reactor Coolant Bleed Tank Water  
December 2, 1981 to December 9, 1981

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	$3.7 \times 10^{-3}$	$3.9 \times 10^{-7}$	$9.5 \times 10^3$
Strontium 90	$2.1 \times 10^{-2}$	$1.6 \times 10^{-5}$	$1.3 \times 10^3$
Antimony 125	$5.5 \times 10^{-3}$	$3.8 \times 10^{-7}$	$1.4 \times 10^4$