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September 21, 1981  
NRC/TMI-81-054



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 September 13 - 19, 1981.  
Major items included in this report are:

1. Liquid Effluent Releases
2. NRC and EPA Environmental Data
3. Radioactive Material and Radwaste Shipments
4. Submerged Demineralizer System Status
5. EPICOR II System Status
6. Reactor Building Entry

Original signed by  
Lake H. Barrett

Lake H. Barrett  
Deputy Program Director  
TMI Program Office

Enclosure: As stated

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Harold R. Denton  
Bernard J. Snyder

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September 21, 1981

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NAME	man/low	RConte	MS [unclear]	AF [unclear]	RBellamy	LB [unclear]	
DATE	9/21/81	9/21/81	9/21/81	9/21/81	9/21/81	9/21/81	

# NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of September 13 - 19, 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, September 18, 1981) (approximate values)

Average Incore Thermocouples: 115°F

Maximum Incore Thermocouple: 136°F

RCS Loop Temperatures:

	A	B
Hot Leg	114°F	117°F
Cold Leg (1)	73°F	74°F
(2)	74°F	74°F

RCS Pressure: 100 psig

Reactor Building: Temperature: 72°F  
Water level: Elevation 291 ft. (8.5 ft. from floor)  
via penetration 401 manometer  
Pressure: -0.5 psig  
Concentration:  $2.6 \times 10^{-6}$  uCi/cc Kr-85 (Sample taken 9/3/81. Weekly reactor building air sampling has been discontinued while the sampling system is modified for continuous sampling capability.)

## 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 September 11, 1981 through September 17, 1981, the effluents contained no detectable radioactivity at the discharge point although individual effluent sources which originated within Unit 2 contained minute amounts of radioactivity. Calculations indicate that less than 2 millionths (0.000002) of a curie of Cs-137 were discharged. This represents less than 0.00002% of the permissible total liquid activity as specified in Technical Specifications for operational commercial reactors.

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 (pCi/m<sup>3</sup>) at several environmental monitoring stations and reported the following results:

<u>Location</u>	<u>August 14 - August 28, 1981</u> (pCi/m <sup>3</sup> )
Goldsboro	24
Observation Center	29
Middletown	22
Yorkhaven	31

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 September 9, 1981, through September 17, 1981.

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-285	September 9, 1981 - September 16, 1981	<7.7 E-14	<7.7 E-14

4. Licensee Radioactive Material and Radwaste Shipment.

-- On Monday, September 14, 1981, a 40 ml Unit 2 reactor coolant sample and a sample of radioactive material from a make-up filter were sent to Babcock and Wilcox (B&W), Lynchburg, Virginia.

Major Activities

1. Submerged Demineralizer System (SDS). The intermediate level Reactor Coolant Bleed Tank (RCBT) water (approximately 4,000 gallons) in the SDS feed tanks was processed through the SDS zeolite vessels. The processing of this water was an operational check of the system following an outage for minor modifications. Except for a minor instrumentation malfunction in the fuel pool B cleanup system, the operational check revealed no problems.

After replacement of a process prefilter, a small batch (approximately 15,000 gallons) of reactor building sump water will be transferred to the feed tanks for processing by the SDS.

2. EPICOR II. The EPICOR II system has processed (polished) approximately 25,000 gallons of water from the SDS. Approximately 125,000 gallons remain to be processed. The EPICOR II system is operating as expected. Effluent water is being stored onsite in one of the two 500,000 gallon processed water storage tanks.
3. Reactor Building Entry. The sixteenth entry into the Unit 2 reactor building (RB) is scheduled for September 24, 1981. The following tasks are scheduled to be performed during the entry:
  - Video tape and photograph areas on the 305 ft and 347 ft elevations which will be decontaminated during the next phase of decontamination experiments,
  - RB characterization surveys,
  - Bottom sample from the RB sump water in the area under the reactor coolant system drain tank rupture disk discharge,
  - RB air cooler fan lubrication.

Twelve persons are scheduled to perform the above tasks. The entry will commence at approximately 9:00 AM and is scheduled to be completed by 2:00 PM.

#### Future Meeting

On Tuesday, October 13, 1981, Lake Barrett will address the Downingtown Rotary Club to give an update on the cleanup efforts at TMI and discuss the functions of the NRC.