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September 20, 1982
NRC/TMI-82-057

50-320

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 12 - 18, 1982. Major items included in this report are:

-- Liquid Effluents

-- EPA and NRC Environmental Data

-- Radioactive Material and Radwaste Shipments

-- Submerged Demineralizer System Status

-- EPICOR II

-- Reactor Building Entries

-- EPICOR II Prefilter Shipment

-- Reactor Building and Incore Thermocouple Temperatures

-- Public Meetings

-5-

Lake H. Barrett
Deputy Program Director
TMI Program Office

Enclosure: As stated

OFFICE ▶							
SURNAME ▶							
DATE ▶							

cc w/encl:
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OGC
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Commissioner's Technical Assistants
NRR Division Directors
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SURNAME	LGage:js	JWiebe	MShanbaky	AFasano	RBellamy	LBarrett	
DATE	9/20/82	9/22/82	9/23/82	9/[illegible]/82	9/26/82	9/20/82	

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NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

September 12, 1982 - September 18, 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 0500, September 17, 1982) (approximate values)
Average Incore Thermocouples*: 119°F
Maximum Incore Thermocouple*: 136°F

RCS Loop Temperatures:

	A	B
Hot Leg**	100°F	98°F
Cold Leg (1)	80°F	80°F
(2)	82°F	81°F

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

Reactor Building: Temperature: 76°F
Pressure: -0.2 psig
Airborne Radionuclide Concentrations:
2.1 E-6 uCi/cc H^3
(sample taken 9/10/82)
6.2 E-6 uCi/cc Kr^{85}
(sample taken 8/10/82)
2.5 E-9 uCi/cc particulates
(sample taken 9/10/82)

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.

During the period September 10, 1982, through September 16, 1982, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained no detectable radioactivity.

*Uncertainties exist as to the exact location and accuracy of these readings.
**The primary water level is below the hot leg temperature sensors.

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^3) at several environmental monitoring stations and reported the following results:

Location	August 13-27, 1982 (pCi/m^3)
Goldsboro	Sampler Malfunctioned
Observation Center	26
Middletown	24
Yorkhaven	24

-- 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 8, 1982, through September 16, 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:

Sample	Period	I-131 (uCi/cc)	Cs-137 (uCi/cc)
HP-336	September 8 - 16, 1982	<6.4 E-14	<6.4 E-14

4. Licensee Radioactive Material and Radwaste Shipments

-- On September 13, 1982, 53 drums of Unit 1 and 2 contaminated laundry were shipped to Interstate Laundry, New Kensington, Pennsylvania.

Major Activities

1. Submerged Demineralizer System (SDS). The SDS system is presently shutdown; no new water is ready for processing. To date SDS has processed 35 batches (approximately 1,205,000 gallons) of contaminated water; 250,000 gallons of this total was Reactor Coolant System (RCS) water.

2. EPICOR II. The EPICOR II system is presently shutdown; no new water is ready for processing.

3. Reactor Building Entries. Reactor building entries were conducted on Wednesday, September 15, 1982, and Friday, September 17, 1982. During the entry on Friday, portions of the reactor building dome were sprayed with a water jet, heated to 140°F, to remove loose surface contamination. Additional entry tasks included continued remote decontamination of the 282 ft. elevation and general housekeeping.

A primary system gas sample was taken from the center control rod drive mechanism, indicating that the gas generated in the core was not collecting in explosive concentrations. The sample indicated that hydrogen gas was being released, but there did not appear to be any release of oxygen to support combustion. Based on the latest measurements, the gas generation rate in the reactor vessel was calculated to be less than 0.02 cubic foot per day.

Three reactor building entries are scheduled for next week. Decontamination inside the reactor building will be the predominant work activity.

4. EPICOR II Prefilter Shipment. The licensee is sampling and inerting the PF-6 waste liner. PF-6, which contains approximately 170 curies of fission products, will be placed in an existing SN-1 type B shipping cask (designed to withstand transportation accidents) to determine if this relatively low curie liner can meet the DOT/NRC shipping dose rate requirements. This demonstration is expected to be completed by the end of September 1982.

5. Reactor Building and Incore Thermocouple Temperatures. Since mid-August 1982, the reported average incore thermocouple readings have dropped from a maximum of 127°F to the current level of 118°F. The maximum reported incore thermocouple dropped from 144°F to 136°F, and the RCS loop temperatures showed corresponding decreases. These decreasing trends in temperatures are expected, primarily due to normal variations in the ambient temperature inside the reactor building. In mid-August the reactor building ambient temperatures were in the mid 80's (°F), and have since dropped to the mid 70's (°F), promoting reactor coolant system cooling. Figure 1 illustrates a plot of reactor building and incore thermocouple temperatures versus time.

Past Meeting

On Friday, September 17, 1982, Mr. Demetrios Basdekas spoke to the Susquehanna Valley Alliance (SVA) about the "Risk of Core Melt". Lake Barrett attended the meeting and was requested by the SVA not to respond or comment on statements made during the meeting.

Future Meetings

1. On Wednesday, September 22, 1982, Lake Barrett will meet with the Concerned Mothers of Middletown to discuss the cleanup efforts for TMI Unit 2 and the restart of Unit 1.

2. On Tuesday, September 28, 1982, Lake H. Barrett will participate in a public meeting sponsored by the Hershey League of Women Voters to discuss TMI Unit 2 cleanup issues.

3. On Friday, October 1, 1982, Lake Barrett will participate in a local radio talk show concerning TMI and general nuclear issues.

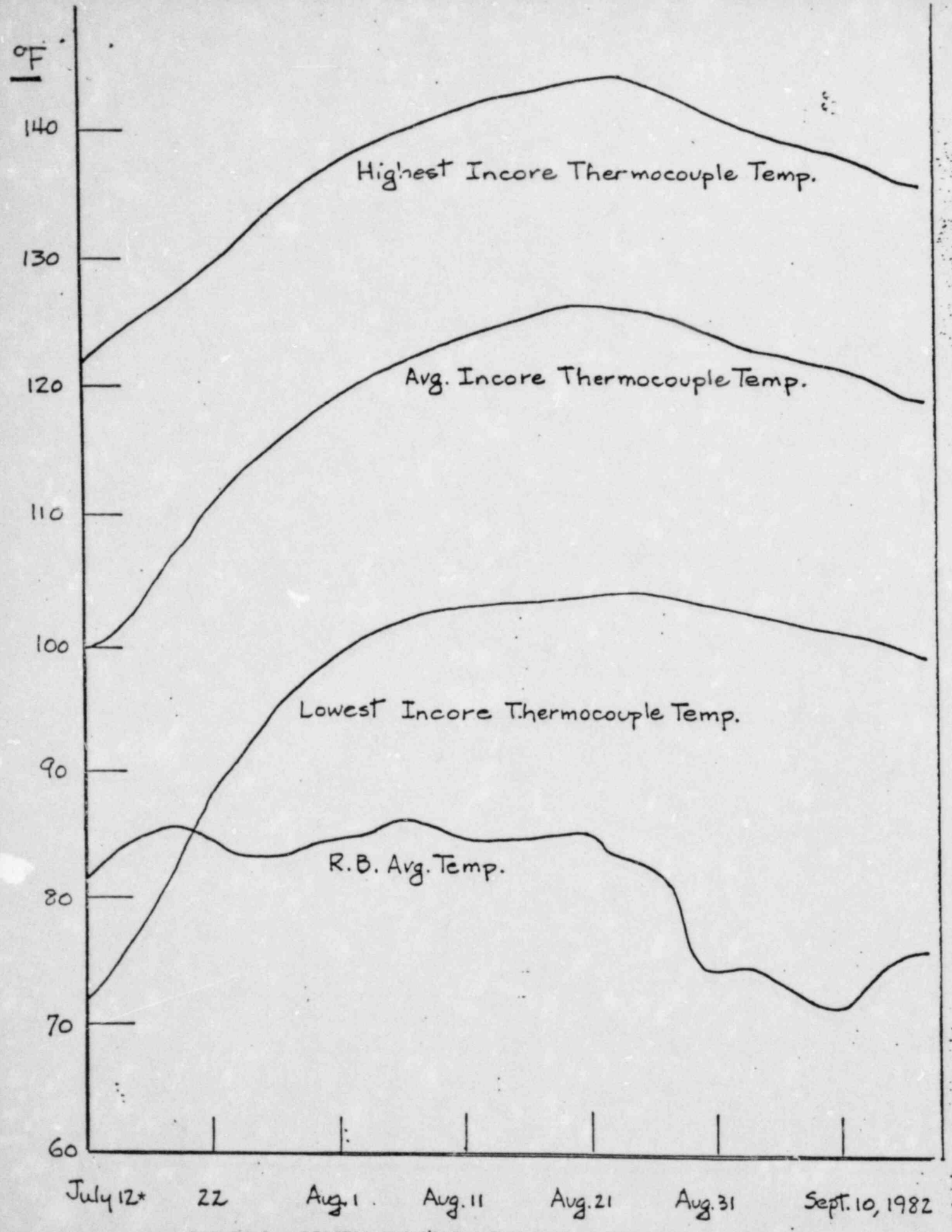

FIGURE 1 - REACTOR BUILDING AND INCORE THERMOCOUPLE TEMPERATURES

*Lowered primary water level for core inspection