



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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NRC/TMI-80-124

MEMORANDUM FOR: H. F. Denton, Director,
Office of Nuclear Reactor Regulation
B. J. Snyder, Program Director,
TMI Program Office

FROM: J. T. Collins, Deputy Program Director,
TMI Program Office

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the week of August 3-9, 1980.

John T. Collins
John T. Collins
Deputy Program Director
TMI Program Office

Enclosure: As stated

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NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of August 3-9, 1980

Plant Status

Core Cooling Mode: Cyclic natural circulation in the "A" reactor coolant system (RCS) loop via the "A" once through steam generator (OTSG), steaming to the main condenser, and RCS loop-A and B cyclic natural circulation to reactor building ambient.

Available Core Cooling Modes: OTSG "B" to the main condenser; long-term cooling "B" (OTSG-B); decay heat removal.

RCS Pressure Control Mode: Standby Pressure Control (SPC) System.

Backup Pressure Control Mode: Makeup system in conjunction with low flow (Emergency use only due to suspected leaks in the seal injection system).

Major Parameters (As of 0500, August 8, 1980). (approximate values)

Average Incore Thermocouples: 141°F

Maximum Incore Thermocouple: 186°F

RCS Loop Temperatures:

	A	B
Hot Leg	139°F	142°F
Cold Leg (1)	97°F	100°F
(2)	89°F	103°F

RCS Pressure: 94 psig (Heise)
96 psig (DVM-controlling)

Pressurizer Temperature: 90°F

Reactor Building: Temperature: 86°F
Water level: Elevation 290.4 ft. (7.9 ft. from floor)
via penetration 401 manometer
Pressure: -0.6 psig (Heise)
Concentration: 1.38×10^{-3} uCi/cc (Kr-85)

Environmental & Effluent Information

1. Liquid effluents from TMI-1 released to the Susquehanna River, after processing, were within the limits specified in Technical Specifications.
2. No liquid effluents were discharged from TMI-2.
3. Results from EPA monitoring of the environment around the TMI site were:

- The EPA measured Kr-85 concentrations (pCi/m^3) at several environmental monitoring stations and reported the following results:

<u>Location</u>	<u>July 18-25, 1980</u> (pCi/m^3)	<u>July 25-August 1, 1980</u> (pCi/m^3)
Bainbridge	24	64
Goldsboro	24	31
Observation Center	27	37
Middletown	23	43
Hills Island	27	Data not available

- EPA environmental stations registered background levels for air particulate and water samples. Gamma scan results for all sampling locations were negative.
- Instantaneous direct radiation readings showed an average level of 0.013 mrem/hr for the 18 monitoring stations.

4. NRC Environmental Data

- 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)
HPR-227	July 30 - August 6, 1980	<6.9E-14	<6.9E-14

No reactor related radioactivity was detected.

- Environmental TLD measurements for the period July 2 to July 31, 1980, indicate gamma radiation to be at the natural background levels. Fifty-seven TLD's registered doses ranging from 0.11 mR/day to 0.18 mR/day . Average dose was 0.14 mR/day . These dose rates are consistent with natural background radiation in the TMI area.

5. Radioactive Material and Radwaste Shipments were as follows:

- On Monday, August 4, 1980, a 40 ml Unit 2 reactor coolant sample and a 250 ml EPICOR II effluent sample were shipped to Babcock & Wilcox (B&W), Lynchburg, Virginia.
- On Tuesday, August 5, 1980, a dirt sample from the EPICOR I shield storage area was sent to Science Applications Incorporated (SAI), Rockville, Maryland.
- On Tuesday, August 5, 1980, two Unit 2 bleed tank samples from RCBT-B and RCBT-C were sent to the Oak Ridge National Laboratory, Oak Ridge, Tennessee.

- On Tuesday, August 5, 1980, Smear Samples from the Unit 2 reactor building and shoe covers used by entry personnel were shipped to Exxon Nuclear Laboratories, Idaho Falls, Idaho.
- On Tuesday, August 5, 1980, an EPICOR I dewatered resin liner (D-19) was shipped to Nuclear Engineering Company, Inc., Richland, Washington.
- On Thursday, August 7, 1980, an EPICOR I dewatered resin liner (P-10) was shipped to Nuclear Engineering Company, Incorporated, Richland, Washington.
- On Friday, August 8, 1980, an air sample from Unit 2 auxiliary building, AMS B-4, was sent to Science Applications Incorporated (SAI), Rockville, Maryland.
- On Friday, August 8, 1980, a 1000 ml sample of Unit 1 waste evaporator condensate storage tank-A was sent to Teledyne Isotopes, Westwood, New Jersey.

Major Activities This Week

1. EPICOR II System

The total process effort as of August 6, 1980, is 474,000 gallons. A restart of EPICOR II is scheduled for Monday, August 11, 1980, to process approximately 28,000 gallons from the reactor coolant bleed tank 'B'. The accumulated RCBT 'B' water is due to general decontamination flushing and tank transfers. The processing is expected to be completed for the scheduled two week outage beginning August 13, 1980. The major work effort is to improve personnel safety related items.

2. Reactor Building Purge

The Deputy Program Director of the TMI Program Office has authorized the licensee to release up to 72 curies of Kr-85 per week. Continued purging of small quantities of Kr-85 is required to release Kr-85 which continues to accumulate in the reactor building. Krypton-85 sources include the waste gas decay tanks in the auxiliary building and offgassing from the water in the reactor building sump. Krypton concentrations in the reactor building are being kept as low as possible to minimize exposure to reactor building entry teams.

3. Reactor Building Entry

The second post-accident entry into the Unit 2 reactor building is scheduled for August 15, 1980. The entry will be made by four individuals and will include surveys of the upper level of the reactor building. The planned duration of the entry is 40 minutes. The entry team will wear protective clothing similar to the type worn during the first entry. The self-contained air breathing unit

will not be used. Based on the results of the air surveys taken during the first entry, the licensee has elected to use a powered air filter with a pressurized face piece to protect against airborne activity.

The entry team will take photographs and will perform radiological surveys on 305' and 347' levels. A teletector reading in the vicinity of the reactor head is planned. The team will replace an area radiation monitor on the 305' elevation. The old monitor will be retrieved as will other preselected objects which will be used to quantify the radiation exposure and the degree of surface contamination.

4. Decay Heat Valve

On Friday, August 8, 1980, one of the reactor coolant system's boundaries was extended by controlled and planned procedures. The boundary was previously located within the containment building, but is presently at the 280'6" elevation piping of the decay heat removal system in the fuel handling building.

This boundary change was achieved by opening decay heat valve #1. This was necessary to permit the near future operation of the mini-decay heat removal system.

The valve that was opened (DH-V1) is located in the piping that would normally take suction from the reactor vessel for decay heat system operation. The valve has been closed since before the TMI-2 accident on March 28, 1979. Isolation of the reactor coolant system is presently being maintained by valve DH-V3, which is downstream of DH-V1, just before the mini-decay heat system tie-in.

Prior to the opening of DH-V1, the radiation levels in the area of the piping downstream of DH-V3 were less than 100 mr/hr and the area above the valve was reading less than 100 mr/hr. After the valve was opened, the area of the piping downstream of DH-V3 still read less than 100 mr/hr and the area above the valve has increased as expected to approximately 3 r/hr at contact with the pipe. The downstream levels indicate that there is no detectable leakage through DH-V3 and the increased levels above the valve indicate that the upstream contains reactor coolant.

5. Weekly Boron Analysis.

Due to contamination from a radiation spill at the B&W laboratory, the lab was not able to analyze the RCS sample from TMI-2. The licensee is now beyond the 7 day technical specification surveillance frequency and notified the TMI Program Office on Friday, August 8, 1980, of the problem. Plans are being prepared to perform a boron analysis on-site on Monday, August 11, 1980, if the B&W lab is not operable by that time. The licensee has no reason to suspect the boron concentration to be out of specification since no changes affecting boron concentration have been made to the RCS.