



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 14, 1980
NRC/TMI-80-106

MEMORANDUM FOR: H. R. 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 July 6-12, 1980.

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

Enclosure: As stated

cc: EDO
OGC
Office Directors
Commissioner's Technical Assistants
NRR Division Directors
NRR A/D's
Regional Directors
IE Division Directors
XOOS
XOMA
HEW
EPA
Public Affairs, RI
T. Elsassner
TMI Program Staff

8007250719

R

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of: July 6-12, 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 letdown flow (Emergency use only due to suspected leaks in the seal injection system).

Major Parameters (As of 0500, July 11, 1980) (approximate values)

Average Incore Thermocouples: 138°F

Maximum Incore Thermocouple: 196°F

RCS Loop Temperatures:

	A	B
Hot Leg	147°F	150°F
Cold Leg (1)	107°F	85°F
(2)	125°F	86°F

RCS Pressure: 82 psig (Heise)
93 psig (DVM controlling)

Pressurizer Temperature: 94°F

Reactor Building: Temperature: 93°F
Water level: Elevation 290.4 ft. (7.9 ft. from floor)
via penetration 401 manometer
Pressure: -0.5 to -0.1" Hg (Heise)

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:

- EPA environmental stations registered background levels for air particulate and water samples. Gamma scan results for all sampling locations were negative.
- The EPA measured Kr-85 concentrations above background in the compressed air samples collected at Bainbridge (170 pCi/m³) and the TMI Observation Center (4,300 pCi/m³). No Kr-85 above background was detected in the samples collected at Middletown, Goldsboro, and Hill Island. To July 10, 1980, the Kr-85 concentration measured at the TMI Observation Center brings to 0.59 mRem the total skin dose accumulated there over the 312 hour period since the licensee began venting the Unit 2 reactor building on June 28, 1980. At the other four fixed monitoring stations the total skin dose accumulated since venting began is 0.0053 mRem at Bainbridge, 0.012 mRem at Goldsboro, 0.018 mRem at Hill Island, and 0.045 mRem at Middletown.
- Instantaneous direct radiation readings showed an average level of 0.015 mRem/hr at 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 (uCi/cc)</u>	<u>Cs-137 (uCi/cc)</u>
HP-222	June 25 to July 2, 1980	<4.9E-14	<4.9E-14
HP-223	July 2 to July 9, 1980	<5.1E-14	<5.1E-14

No reactor related radioactivity was detected.

- The licensee provided the following monthly inventory of Kr-85 releases for 1980: January-80 Ci, February-80 Ci, March-63 Ci, April-69 Ci, May-85 Ci, June-447 Ci, and July (to midnight July 10) 42,615 Ci. This results in a total Kr-85 release of 43,439 Ci, as of midnight July 10, 1980.

The licensee stated that there is a $\pm 10\%$ uncertain quantity of Kr-85 released during the purge.

- Results of the environmental TLD measurements for the period May 29, to July 2, 1980, indicate no gamma levels above natural background. Fifty-nine TLD's registered doses ranging from 0.10 mR/day to 0.20 mR/day. Average dose was 0.13 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, July 7, 1980, an Epicor I, Type B, dewatered resin liner (D-10) was shipped to Nuclear Engineering Company (NECO) Richland, Washington.
- On Monday, July 7, 1980, a Unit 2, 40 ml reactor coolant sample; an Epicor 2, PF, DF, and DS resin samples; and an RCS Resin Column Effluent Sample, were shipped to Babcock and Wilcox (B&W) Lynchburg, Virginia.
- On Tuesday, July 8, 1980, a Unit 1, 1000 ml Waste Evaporator Condensate Storage Tank sample and a 250 ml Decay Heat "A" Tank sample were shipped to Teledyne Isotopes Inc., Westwood, New Jersey.
- On Tuesday, July 8, 1980, a Unit 2 package of various Air Sample Filter Papers was sent to Teledyne Isotopes Inc., Westwood, New Jersey.
- On Wednesday, July 9, 1980, two (2) Epicor I dewatered resin liners, D-15 and D-13, were shipped to Nuclear Engineering Company (NECO) Richland, Washington.
- On Friday, July 11, 1980, two (2) Epicor I dewatered resin liners, D-18 and P-9, were shipped to NECO, Richland, Washington.

Major Activities This Week

1. EPICOR II System. Processing of the fuel pool storage system water via the reactor coolant bleed tank ("B") continued. Completion of processing auxiliary building water, which has accumulated as a result of the March 28 accident and the subsequent cleanup period to date, is expected by mid August 1980.

Processing status (auxiliary building approximate) quantities are as follows:

Amount processed this week:	29,000
Amount processed to date:	413,000
Amount to be processed:	60,000

2. Reactor Building Purge. During the week, purging of the reactor building atmosphere continued utilizing the modified hydrogen control (MHC) system (for slow purge rate) and the modified reactor building purge system (MPS) (for fast purge rate) with a maximum achieved purge system flow rate of approximately 18,500 cfm and average plant stack flow of approximately 110,000 cfm. Periodic shutdowns occurred due to meteorological conditions, slow/fast system interchange lineups and effluent monitor filter changeout. Effluent particulate monitor systems indicated no particulate

activity being emitted. At approximately 10:00 a.m., on July 11, 1980, the purge system was shutdown (final condition) based on licensee declaration that the purge was complete. Preliminary calculations of total release as of the shutdown was approximately 43,000 curies based on stack flow rate and measured stack concentration using HPR-219A values. Latest reactor building Kr-85 concentration was analyzed at 1.9×10^{-4} uCi/cc.

Subsequent samples, with the reactor building isolated, will be taken to monitor for long term equilibrium conditions. Analysis of the accumulated purge data to date will continue by the licensee and NRL.

During this week, two material problems occurred. At 6:20 a.m., on July 8, 1980, the MHC system was shutdown due to a high alarm on the system's monitor (HPR-229) noble gas channel. This was due to a faulty detector cable. The detector and cable were replaced and the monitor was restored to operation. Also, when the MPS was started for the first time on July 8, 1980, leaks were detected in the system resulting in local noble gas concentration (approximately 100 MPC) near the ventilation system in the auxiliary building. The majority of the leaks were corrected and the MHC system was utilized to reduce local noble gas concentrations in the area to near background readings.

3. Reactor Building Entry. Pending further evaluation of the reactor building atmosphere as a result of recent purge evolution, the licensee expects to enter the containment within the next month.

As previously reported, the ΔP safety interlock solenoid pin has been put into the deenergized state permitting operation of the inner door handwheel. Actual opening of the inner door remains to be tested and is expected by the end of next week.

4. Mini-Decay Heat (MDH) System. System modification work and test items are still in progress. Operation is expected by the end of July 1980. A schedule date for opening DH-VI/171 is not finalized by the licensee as yet.

Meetings attended with Public Officials and Interested Groups.

On Monday, July 7, 1980, J. T. Collins attended a Pre-hearing Conference on modifications of the TMI-2 Technical Specifications.

On Tuesday, July 8, 1980, J. T. Collins, B. Snyder, F. Congel and D. Brinkman attended a second Pre-hearing Conference on modifications of the TMI-2 Technical Specifications.

On Thursday, July 10, 1980, J. T. Collins addressed the ACRS on the purging of the krypton-85 from the TMI-2 reactor building.

On Thursday, July 11, 1980, R. Conte attended a hearing before the 3rd Federal District Court of Appeals in Philadelphia on a motion by petitioners to halt the purging of krypton-85 from the TMI-2 reactor building.

On Friday, July 11, 1980, J. T. Collins and D. Brinkman met in Bethesda with representatives of Met-Ed and petitioners to discuss modifications to the TMI-2 Technical Specifications.

On Friday, July 11, 1980, B. Snyder, J. T. Collins and et al met with representatives of Met-Ed, the U. S. Justice Department, OGC and SVA to discuss the handling, storage and disposition of waste generated from the processing of waste water through EPICOR II and the proposed SDS system.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

OFFICIAL BUSINESS

POSTAGE & FEES PAID
U.S. Nuclear Regulatory Commission

