



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

October 14, 1980
NRC/TMI-80-140

MEMORANDUM FOR: H. R. Denton, Director,
Office of Nuclear Reactor Regulation

B. J. Snyder, Program Director,
TMI Program Office

FROM: John 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 October 5 - 11, 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 October 5 - 11, 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, October 10, 1980) (approximate values)

Average Incore Thermocouples: 131°F

Maximum Incore Thermocouple: 174°F

RCS Loop Temperatures:

	A	B
Hot Leg	133°F	136°F
Cold Leg (1)	100°F	92°F
(2)	112°F	91°F

RCS Pressure: 96 psig (DVM)
85 psig (Heise)

Pressurizer Temperature: 83°F

Reactor Building: Temperature: 75°F
Water level: Elevation 290.4 ft. (7.9 ft. from floor)
via penetration 401 manometer
Pressure: -0.8 psig (Heise)
Concentration: 2.84×10^{-4} uCi/cc (Kr-85) (sample taken 10/8/80)

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. 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:

<u>Location</u>	<u>9/15-26/80</u> <u>(pCi/m^3)</u>	<u>9/26-10/3/80</u> <u>pCi/m^3</u>
Bainbridge	*	16
Goldsboro	*	15
Observation Center	39	15
Middletown	*	15
Hill Island	*	22

* Reported previously.

All of the above levels of krypton-85 are considered to be background levels.

- No radiation above normally occurring background levels were detected in any of the samples collected from the EPA's air and gamma rate networks during the period from September 24 through October 2, 1980.

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> <u>(uCi/cc)</u>	<u>Cs-137</u> <u>(uCi/cc)</u>
HP-236	October 1 - October 8, 1980	$7.5\text{E}-14$	$7.5\text{E}-14$

- Fifty-eight environmental TLD measurements for the period July 31 to August 26, 1980, indicate gamma radiation to be at the natural background levels.

5. Licensee Radioactive Material and Radwaste Shipments. The following shipments were made:

- On Monday, October 6, 1980, a 40 ml Unit 2 reactor coolant sample was shipped to Babcock and Wilcox (B&W), Lynchburg, Virginia.
- On Wednesday, October 8, 1980, Unit 2 air sample filters and a 100 ml long term storage area sump sample were mailed to Teledyne Isotopes, Westwood, New Jersey.

Major Activities

1. Mini Decay Heat System. The MDHRS remains in an operational status pending final verification of the inline filter changeout methodology, and issuance of technical specifications.
2. Reactor Building Entry and Purge. The third reactor building entry originally scheduled for September 25, 1980, has been rescheduled for Thursday, October 16, 1980. The entry will be made by five individuals, some of whom may remain in the reactor building for up to one hour. The length of the entry will depend on the time required to complete assigned tasks, physical stamina, and dose accumulation. The entry procedures specify that the entry will be terminated whenever an individual has accumulated a dose of 625 mr.

In addition to photography and radiological mapping, the tasks for the third entry include:

1. Repair of the equipment hatch personnel airlock differential pressure interlocks.
2. Removal of the N-1-2 neutron source range monitor preamplifier for repair.
3. Replacement of one vibration detector preamplifier.

The pre-entry reactor building purge commenced on Friday, October 10, 1980. Ten to 20 curies of krypton 85 were released over a six hour period. The purge will be reinstated one day prior to the entry and will continue through the entry in an attempt to maintain the krypton 85 concentration below MPC.

3. Reactor Heat Removal to Ambient. The licensee has proposed to discontinue mechanical cooling of the primary water system in favor of heat removal to the reactor building atmosphere (loss to ambient cooling). The heat output of the core has been calculated to be 73 kilowatts, comparable to the heat produced by 730 light bulbs with a power rating of 100 watts each. This heat is transferred from the fuel to the 88,000 gallons of water in the primary system. Currently, the primary system water is cooled by heat transfer to the "A" steam generator which is steaming to the main condenser. The licensee has proposed to shut the "A" steam generator main steam valve and to allow the primary system water to be cooled by the reactor building air. In this mode of operation, no mechanical components will be required to cool the reactor.

The initial phase of the licensee proposal includes a test which will be conducted over several weeks. During the test, the "A" steam generator steam valve will be shut and the reactor parameters will be closely monitored. The reactor operating parameters; temperatures, pressure, etc. will not be permitted to exceed the limits established for the current heat removal mode and specified in the technical specifications. During the test, an option to immediately reestablish the "A" steam generator steaming mode will be maintained at all times. Following the test, an evaluation will be made to determine whether the loss to ambient cooling should be continued or whether the "A" steam generator steaming should be re-established.

Meetings Held

1. On Monday, October 6, 1980, J. Collins, T. Elsasser, D. Cleary, F. Congel, O. Lynch, P. Leech, M. Bills (EPA), W. Kirk (EPA), and T. Gerusky (DER) held a meeting with local officials, citizens and press in Lancaster to discuss the contents of the draft PEIS. Mayor Morris, City of Lancaster, chaired the public meeting. A majority of those who attended the meeting expressed the view that no processed water from the cleanup of TMI-2 should be allowed to be discharged into the Susquehanna River. There were also many specific questions concerning how the public could influence the NRC Commissioners decision making process in this regard - that is - to insure that processed waters from TMI-2 would never be discharged into the Susquehanna River.
2. On Tuesday, October 7, 1980, J. Collins, T. Elsasser, C. Jones (DER), T. Gerusky (DER) and W. Kirk (EPA) met with representatives of the PA Farmers Association to discuss the contents of the draft PEIS. The expeditious restart of TMI-1 and the fear of radioactive contamination of agricultural products as a result of the TMI-2 cleanup were the general areas of concern expressed by the Farmer's Association at the meeting. The farmers also expressed the opinion that over-reaction on the part of the news media has done much to create unwarranted public concern over the potential radioactive contamination of area agricultural products. They indicated that more responsible reporting and an effective public information and education program would do much to avert this problem in the future.
3. On Wednesday, October 8, 1980, J. Collins, B. Snyder, M. Bills (EPA), W. Kirk (EPA), and T. Gerusky (DER), held a meeting with the Newberry Township Steering Committee and local residents to discuss the contents of the draft PEIS. Emotional stress was one of the major concerns expressed by those who attended the meeting. Both the psychological stress question as it applies to TMI-1 restart and continued level of public stress due to the cleanup of TMI-2 were of concern. The other major areas of concern expressed was the additional risk that the local population would experience as a result of the various activities related to the TMI-2 cleanup.