



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

May 12, 1980  
NRC/TMI-80-086

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 May 3-9, 1980.

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

Enclosure: As stated

cc: EDO  
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T. Elsasser  
TMI Program Staff

# NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of: May 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 letdown flow (Emergency use only due to suspected leaks in the seal injection system).

Major Parameters (As of 1600, May 9, 1980) (approximate values)

Average Incore Thermocouples: 153°F

Maximum Incore Thermocouple: 189°F

### RCS Loop Temperatures:

	A	B
Hot Leg	146°F	149°F
Cold Leg (1)	84°F	101°F
(2)	82°F	103°F

RCS Pressure: 78 psig (Heise)  
83 psig (DVM - now controlling)

Pressurizer Temperature: 268°F (Saturation Pressure 26 psig)

Reactor Building: Temperature: 79°F  
Pressure: -1.4 psig (Heise)  
Water level: Elevation 290.6 ft. (8.1 ft. from floor) via decay heat system  
Elevation 290.2 ft. via penetration 401 manometer

## 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.

predictably to the pressure reductions. Water samples drawn from the letdown system on May 5, 1980, indicate that dissolved gas concentrations in the RCS will remain below saturation at 100 psig.

However, due to limited water circulation, it is assumed that gas saturated water and gas pockets do exist in portions of the RCS. The following gas pocket volumes versus primary pressure have been calculated:

<u>RCS pressure</u>	<u>Gas volume</u>
300 psig	50 cubic feet
190 psig	57 cubic feet
135 psig	106 cubic feet
100 psig	138 cubic feet

The above pressure/volume relations have been verified during several pressure changes by comparing the amount of makeup/letdown to the resultant RCS pressure changes.

The RCS pressure reductions have not produced a noticeable effect on the secondary system. Both A and B loops continued to "burp" periodically. The A loop "burp" interval increased from 21 to 24 hours. The B loop "burps" sporadically every 80 to 110 hours.

The decreased "burp" frequency in the A loop is attributed to higher heat losses to the reactor building atmosphere. The reactor building evaporative cooling system was activated on April 15, 1980, to reduce the reactor building pressure. The "burp" frequency decreased after the reactor building cooling system was activated.

The RCS leak rate appears to have decreased as a result of the pressure reductions. Quantitative leak rate data will be provided after additional leak/makeup volumes are compiled.

Pressurizer heaters will not be used now that pressure is reduced to 100 psig. The cycling of the heaters produced pressure fluctuations. The heaters had been used to maintain the water in the pressurizer just below the saturation temperature. In this condition, the pressurizer was a potential source of pressure for the RCS in the event of an unplanned pressure reduction. The hazards associated with an unplanned depressurization have decreased with the decrease in thermocouple temperatures below ambient boiling.

2. Decay Heat Removal System Valves, DH-V-1 and DH-V-171. A meeting between the TMI Program Office staff and licensee representatives has been scheduled for Monday, May 12, 1980, to discuss the potential problems which may be encountered after DH-V-1 and DH-V-171 are opened. When open, the valves will provide a flow path from the reactor coolant system (RCS) to the mini decay heat removal (MDHR) system in the auxiliary building. The rising water level in the reactor building is expected to cover the valve operators in the near future; this may preclude the option to close the valves. When open, the valves expose the decay heat removal system to RCS pressure and as a result, RCS pressure must be maintained below approximately 370 psig to prevent exceeding the decay heat removal system relief valve setting. After the valves are opened, radiation levels may increase in some sections of the auxiliary building.

Meetings Held with Public Officials and Interested Groups

1. On May 5, 1980, J. Collins addressed the 9th grade Civic Classes at East Junior High School, Harrisburg.
2. On May 5, 1980, at 7:00 p.m., J. Collins, T. Elsasser and M. Bills, EPA, conducted a briefing in Manchester for officials invited from the following communities: Conewago Township (West Shore), Dover Township, East Manchester Township, Hellam Township, Manchester, Manchester Township, Mount Wolf, Springettsburg, Warrington Township, and York Haven. A total of 22 officials were invited; 3 attended.
3. On May 7, 1980, J. Collins appeared on a talk program on WAHT radio, Lebanon, called "Two Way Radio" to answer questions from listeners concerning the cleanup operations.
4. On May 7, 1980, at 7:30 p.m., Commissioner Hendrie, H. Denton, J. Collins, B. Snyder and M. Bills, EPA, met in Harrisburg with representatives of TMI Alert to discuss cleanup operations at TMI-2.
5. On May 8, 1980, J. Collins addressed the Lower Swatara Lions Club at 6:30 p.m. at the Skyways Inn.
6. On May 9, 1980, J. Collins and A. Fasano met with B. Grier and J. Allen to discuss the Inspection and Enforcement Program at TMI-1 and TMI-2.

Future Meetings

1. On May 12, 1980, J. Collins will participate in the graduation ceremony for the Community Monitoring Program to be held at the Penn State Capitol Campus.
2. On May 13, 1980, the Atomic Safety and Licensing Board will conduct hearings concerning the Restart of TMI-1 at the Federal Building in Harrisburg.
3. On May 14, 1980, at 7:30 p.m., J. Collins will meet with the Lower Swatara Board of Commissioners to discuss the cleanup operations at TMI-2.
4. On June 9, 1980, J. Collins will meet with the Pennsylvania Arson Association in Lancaster to discuss clean-up operations at TMI-2.
5. J. Collins will present an invited paper entitled, "NRC Involvement During the TMI Accident" at the 1980 Annual Meeting of the American Nuclear Society, June 8-13, 1980, in Las Vegas, Nevada.