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

May 19, 1980
NRC/TMI-80-092

MEMEORANDUM 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 10-17, 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
X' . S
XOMA
HEW
EPA
Public Affairs, RI
T. Elsasser
TMI Program Staff

8005290168

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of: May 10-17, 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 0400, May 16, 1980) (approximate values)
Average Incore Thermocouples: 156°F
Maximum Incore Thermocouple: 192°F

RCS Loop Temperatures:

	A	B
Hot Leg	150°F	153°F
Cold Leg (1)	79°F	104°F
(2)	80°F	119°F

RCS Pressure: 80 psig (Heise)
92 psig (DVM - controlling)

Pressurizer Temperature: 142°F

Reactor Building: Temperature: 79°F
Pressure: -.83 psig (Heise)
Water level: Elevation 290.5 ft. (8.0 ft. from floor) via decay heat system
Elevation 290.6 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.

-- Gas/Air (Kr-85) sample results during the period May 2 through May 9, 1980, were: Goldsboro - 23 pCi/m^3, TMI Observation Center - 44 pCi/m^3, Middletown - 22 pCi/m^3, and Bainbridge - 26 pCi/m^3. The EPA states that the Kr-85 background concentration in the vicinity of TMI to be between 20 and 40 pCi/m^3. The air samples collected at the TMI Observation Center showed a slight increase ($\approx$4 pCi/m^3) in Kr-85 concentration. This increase could be attributed to outgassing during the processing of water in the plant.

-- Instantaneous direct radiation readings showed no levels above natural background being detected at any of the EPA monitoring locations during the period May 12 through May 15, 1980.

4. NRC Environmental Data

-- The West Screen House continuous air sample (HP-216) for the sampling period May 7 through May 15, 1980, has been delivered to the EPA Coordination Center for analysis.

-- Results of the environmental TLD measurements for the period March 18 to April 30, 1980, indicate no gamma levels above natural background. Fifty-eight TLD's registered doses ranging from 0.09 mR/day to 0.18 mR/day. Average dose was 0.13 mR/day. These dose rates are consistent with natural background radiation in the TMI area.

-- The licensee provided the following monthly inventory of Kr-85 releases for 1980: January - 80 Ci, February - 80 Ci, March - 63 Ci and April - 69. Total through April - 292 Ci Kr-85.

5. Radioactive material and Radwaste shipments offsite were as follows:

-- On Monday, May 12, 1980, a Unit 1 WECST sample was sent to Teledyne Isotopes, Westwood, New Jersey, for analysis.

-- On Monday, May 12, 1980, a Unit 2 reactor coolant sample was sent to the Babcock and Wilcox (B&W) facility, Lynchburg, Virginia, for chemical and radiochemical analysis.

-- On Tuesday, May 13, 1980, a Unit 2 sample smear and tape strip from make-up filter 5A housing were packaged and sent to B&W Research Center, Lynchburg, Virginia, for analysis.

-- On Wednesday, May 14, 1980, Unit 2 gas samples, particulate and charcoal filters, and H-3 and C-14 samplers were sent to EG&G, Inc., Idaho Falls, Idaho, for analysis.

-- On Wednesday, May 14, 1980, an EPICOR II Effluent Sample was sent to SAI, Rockville, Maryland, for analysis.

-- Two Unit 2 waste snipments, LSA boxes and LSA 55 gallon drums, are on hold pending further licensee evaluation of the isotopic content of the compacted and uncompacted waste.

6. EPICOR II Processing Status: (auxiliary building approximate quantities)

Amount processed this week:	25,000 gallons
Amount processed to date:	280,000 gallons
Amount to be processed:	166,000 gallons

Major Activities (Past and Present)

1. Reactor Coolant System (RCS) Pressure Reduction. On April 15, 1980, RCS pressure was reduced from 300 psig to 190 psig. The pressure was further reduced to 135 psig on April 29, 1980. The pressure was reduced to 90 psig on May 9, 1980. The primary system responded predictably to the pressure reductions. Pressurizer heaters have been turned off and the pressurizer cooled to primary system temperature. Both A and B loops continue to "burp" periodically in cyclic natural circulation.

2. Decay Heat Removal System Valves DH-V-1 and DH-V-171. The NRC TMI Program Office Staff has not yet approved the licensee's procedure to open Decay Heat System Valves DH-V-1 and DH-V-171. Approval to open the valves is contingent upon the formulation of procedures to address potential problems following the valve opening. Met-Ed will attempt to open DH-V-1 first. Attempts to open DH-V-171 will be initiated only if it has been determined that DH-V-1 failed to open. The two valves provide a parallel path from the RCS to the Mini Decay Heat Removal System.

3. Reactor Building Entry The first entry into the Unit-2 reactor building is scheduled for 5:00 p.m. on May 20, 1980. The Mine Safety and Appliances Company (MSA) Model 401 breathing devices will be used by the entry team in lieu of the Bio Pak 60P. The stay time inside the reactor building has been decreased to 15 minutes to provide a safety factor due to the duration of the air supply. Entry team members used the MSA breathing units in tests involving stressful physical activity to verify the duration of the air supply. Both members of the entry team were able to use the breathing units for a period exceeding 30 minutes.

   Purging of the air lock in preparation for the entry will commence at 8:00 a.m. on Monday, May 19, 1980. The licensee estimates that less than 10 mCi of Kr-85 will be released during this purging operation. Following the entry into the Unit-2 reactor building the licensee estimates that approximately 25 Ci of Kr-85 will be released when the two man entry team makes their egress from the reactor building and air lock. The TMI Program Office staff will be monitoring these activities.

4. Long Term Spent Resin Storage Facility Forty-four of the sixty spent resin storage cells in the A Long Term Waste Storage Module are filled with spent resin liners. Cement was poured around the cells in the B module on Wednesday, May 14, 1980. The B module is scheduled for completion on August 5, 1980. Based on the current

liner generation rate and the B module construction schedule, it does not appear that EPICOR II operations will be interrupted for lack of spent resin storage space.

To increase the storage capacity of the A module, the licensee intends to commence stacking 4 x 4 liners, two per storage cell. The storage cells are limited to a maximum curie content of 200 curies per cell. Based on this restriction, the licensee has calculated that the 27 cells currently housing single 4 x 4 liners can be consolidated by stacking to provide 10 additional spaces. Additionally, at least 10 more storage cells will become available after liners generated by Unit 1 are shipped off site.

The licensee is preparing a report which addresses the projected liner generation rates by the EPICOR II and the submerged demineralizer system versus the spent resin storage capacity. Currently, plans exist for a total of six, 60 cell capacity storage modules.

b. Union of Concerned Scientists (UCS) Report on Containment Venting
A joint press conference with UCS and Governor Thornburgh was held on May 14, 1980, to release the UCS report and recommendations. The recommendation can be summarized as follows:

a. "UCS has concluded that direct radiation induced health effects from exposure to Kr-85, even from the Met-Ed/NRC proposed venting, would be absent."

b. UCS recommends against implementation of the existing Met-Ed/NRC venting plan because of the psychological stress and documented magnitude of present levels of stress in the population living around the plant.

c. Two modified venting schemes should be considered:

(1) "Installing an incinerator to heat the krypton prior to release..., dispersing it over a wider area."

(2) "Channelling the gas...into the air before release by using a coated nylon tube held aloft by a tethered, unmanned balloon..."

d. NRC should review the cryogenic and selective absorption options to see if they can be implemented within a year.

Governor Thornburgh will release his recommendations on May 16, 1980.

Meetings Held with Public Officials and Interested Groups

1. May 12, 1980, J. Collins participated in the graduation ceremony for the Community Monitoring Program held at the Penn State Capitol Campus.

2. On May 13, 1980, the Atmoic Safety and Licensing Board conducted hearings concerning the Restart of TMI-1 at the Federal Building in Harrisburg.

3. On May 14, 1980, T. Elsasser and G. Sanborn attended Governor Thornburgh's press conference which was held to discuss the UCS report to the governor on krypton venting.

4. On May 16, 1980, T. Elsasser attended Governor Thornburgh's press conference. The press conference was held to present the Commonwealth's reply to the Environmental Assessment.

Future Meetings

1. On June 9, 1980, J. Collins will meet with the Pennsylvania Arson Association in Lancaster to discuss clean-up operations at TMI-2.

2. 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.