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August 23, 1981
 NRC/TMI-81-048

MEMORANDUM FOR: Harold R. Denton, Director
 Office of Nuclear Reactor Regulation
 Bernard J. Snyder, Program Director
 TMI Program Office

FROM: Lake H. Barrett, Deputy Program Director
 TMI Program Office

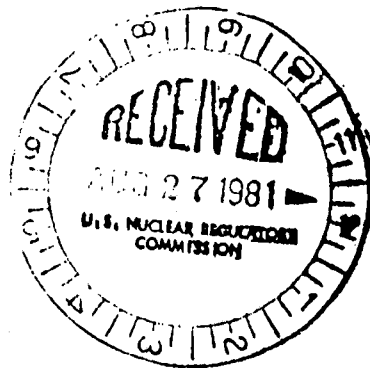
SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of August 16 - 22, 1981.

Original signed by
 Lake H. Barrett
 Lake H. Barrett
 Deputy Program Director
 TMI Program Office

Enclosure: As stated

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| OFFICE | TMI:PO <i>PK</i> | TMI:PO | TMI:PO | TMI:PO | TMI:PO | TMI:PO |
| IRNAME | GKalman/jes | RConite | MShanbary | AFasano | RBellamy | LBarnett |
| DATE | 8/24/81 | 8/1/81 | 8/24/81 | 8/1/81 | 8/24/81 | 8/24/81 |

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of August 16 - 22, 1981 :

Plant Status

Core Cooling Mode: Heat transfer from the reactor coolant system (RCS) loops to reactor building ambient.

Available Core Cooling Modes: Decay heat removal systems. Long term cooling "B" (once through steam generator-B).

RCS Pressure Control Mode: Standby pressure control (SPC) system.

Backup Pressure Control Modes: Mini decay heat removal (MDHR) system.
Decay heat removal (DHR) system.

Major Parameters (as of 0500, August 21, 1981) (approximate values)

Average Incore Thermocouples: 118°F

Maximum Incore Thermocouple: 140°F

RCS Loop Temperatures:

| | A | B |
|--------------|-------|-------|
| Hot Leg | 117°F | 120°F |
| Cold Leg (1) | 73°F | 75°F |
| (2) | 74°F | 75°F |

RCS Pressure: 94 psig

Reactor Building: Temperature: 73°F

Water level: Elevation 290.95 ft. (8.45 ft. from floor)
via penetration 401 manometer

Pressure: -1.1 psig

Concentration: 4.9×10^{-5} uCi/ml Kr-85
(Sample taken 8/12/81)

Effluent and Environmental (Radiological) Information

1. Liquid effluents from the TMI site released to the Susquehanna River after processing, were made within the regulatory limits and in accordance with NRC requirements and City of Lancaster Agreement dated February 27, 1980.

During the period August 14, 1981 through August 20, 1981, the effluents contained no detectable radioactivity at the discharge point although individual effluent sources which originated within Unit 2 contained minute amounts of radioactivity. Calculations indicate that less than 25 millionths (0.000025) of a curie of tritium was discharged.

2. Environmental Protection Agency (EPA) Environmental Data. Results from EPA monitoring of the environment around the TMI site were as follows:

- The EPA measured Kr-85 concentrations (pCi/m³) at several environmental monitoring stations and reported the following results:

| <u>Location</u> | <u>July 17 - July 31, 1981</u> (pCi/m ³) |
|--------------------|---------------------------------------------------------|
| Goldsboro | 22 |
| Observation Center | 26 |
| Middletown | 26 |
| Yorkhaven | 19 |

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

- No radiation above normally occurring background levels was detected in any of the samples collected from the EPA's air and gamma rate networks during the period from August 12, 1981, through August 20, 1981.

3. NRC Environmental Data. Results from NRC monitoring of the environment around the TMI site were as follows:

- 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) |
|---------------|-----------------------------------|--------------------------|---------------------------|
| HP-281 | August 12, 1981 - August 19, 1981 | <8.7 E-14 | <8.7 E-14 |

4. Licensee Radioactive Material and Radwaste Shipments.

- On Monday, August 17, 1981, a 40 ml Unit 2 reactor coolant sample was sent to Babcock and Wilcox (B&W), Lynchburg, Virginia.
- On Monday, August 17, 1981, one 6' x 6' EPICOR-I dewatered resin liner (liner P-8) from Unit 1 was shipped to Chem-Nuclear Systems Incorporated, Barnwell, South Carolina.
- On Wednesday, August 19, 1981, one 6' x 6' EPICOR-I dewatered resin liner (liner P-1) from Unit 1 was shipped to Chem-Nuclear Systems Incorporated, Barnwell, South Carolina.

- On Thursday, August 20, 1981, one 6' x 6' EPICOR-I dewatered resin liner (liner P-3) from Unit 1 was shipped to Chem-Nuclear Systems Incorporated, Barnwell, South Carolina.
- On Friday, August 21, 1981, two Hittman steel liners containing Unit 1 solidified evaporator bottoms were shipped to U.S. Ecology, Richland, Washington.
- On Friday, August 21, 1981, one drum containing samples taken during recent Unit 2 reactor building entries was shipped to EG&G-INEL, Scoville, Idaho.

Major Activities

1. Submerged Demineralizer System. The outage to incorporate minor system modifications is continuing. Staging and processing of reactor building sump water is expected to start during the first half of September 1981 after a trial period of processing intermediate water to verify that the system is functional.
2. Reactor Building Entry and Purge. The fifteenth entry into the Unit 2 reactor building (RB) is scheduled for Thursday, August 27, 1981. A total of fifteen men will enter the building in staggered intervals commencing at approximately 9:00 a.m. It is expected that all assigned tasks will be completed by 2:00 p.m. on the same day. The tasks assigned for the fifteenth entry are listed below:
 - Portable gamma spectrometer measurement of floor deposition on the 305 feet elevation floor
 - Closed circuit television maintenance
 - Instrument removal for accident related data acquisition
 - RB tool removal and clean-up
 - RB surveys and photographs
 - Air cooler survey and inspection
 - Survey and photograph a penetration and proposed route for a hose which may be used to refill the RB sump after SDS processing commences. (This step may be required to reduce airborne/area radiation levels in the RB.)

The pre-entry RB purge sequence has been changed to reduce the ambient temperature inside the RB by purging at night to take advantage of the cooler night air. For the entry on August 27th, the purge is scheduled to commence during the evening of the previous day. Krypton 85 is the only major radioisotope released to the environment from the RB during a purge. Typically, the Krypton 85 release has been less than three curies prior to each entry.

3. Conservatively Reported Krypton 85 Releases. Over the past three months the licensee has reported small quantities (~ 1 curie/day) of Krypton 85 being released to the environment via the plant stack and the chemical cleaning (EPICOR-II) building exhaust as indicated on the effluent radiation monitors. These apparent releases were well within the regulatory limits and were reported as real because there was no explanation as to why the monitors indicated detectable readings. Preliminary analysis indicated a possible association with a temperature elution mechanism of Krypton 85 during hot ambient temperature days. However, a highly sophisticated grab sampling system, provided by the Environmental Protection Agency, which provides greater sensitivity, indicated that the actual krypton release was approximately one hundredth of the amount indicated on the plant effluent monitors. The licensee is currently evaluating the gaseous monitors to determine their sensitivity and response to temperature changes.

Future Meetings

1. On Friday, August 28, 1981, Lake Barrett will meet with the Middletown mothers to discuss the Unit 1 administrative hearing process and the Unit 2 cleanup.
2. On Tuesday, September 1, 1981, the Advisory Panel for the Decontamination of TMI Unit 2, will meet from 7:00 p.m. to 10:00 p.m. at the Holiday Inn, 23 South Second Street in Harrisburg, to discuss current activities at TMI. This meeting will be open for public observation.
3. On Tuesday, September 1, 1981, Lake Barrett will address the York Rotary Club to give an update on the decontamination and cleanup efforts at TMI.
4. On Thursday, September 3, 1981, Lake Barrett will address the Middletown Rotary Club to give an update on the decontamination and cleanup efforts at TMI.