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March 15, 1982 NRC/THI-82-014

MEHURANDUH FOR:

Harold R. Denton, Director

Office of Nuclear Reactor Regulation

Bernard J. Snyder. Program Director

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FROM:

Lake II. Barrett, Deputy Program Director

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SUBJECT:

NRC THI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of March 6, 1982 to March 13, 1982. Major items included in this report are:

- -- Liquid Effluents
- -- IRC and EPA Environmental Data
- -- Radioactive Naterial and Radwaste Shipments
- -- Submerged Demineralizer System Status
- -- EPICOR II
- -- Reactor Building Entries
- -- Groundwater Monitoring Program
- -- Control Rod Brive Removal Practice
- -- Public Heetings

Original signed by Lake H. Borrett

Lake H. Barrett Deputy Program Director TMI Program Office

Enclesure: As stated



Harold R. Denton Bernard J. Snyder

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### NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

March 6, 1982 - March 13, 1982

### 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 "8" (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, March 12, 1982) (approximate values)

Average Incore Thermocouples: 103°F Maximum Incore Thermocouple: 133°F

RCS Loop Temperatures:

Hot Leg	A 94°F	97°F
Cold Leg (1) (2)	77°F 81°F	80°F 85°F

RCS Pressure: 96 psig

Reactor Building: Temperature: 60°F

Water level: Elevation 283.1 ft. (0.4 ft. from floor)

Pressure: -0.2 psig

Airborne Radionuclide Concentrations:

2.1 E-7 uC1/cc H3

(sample taken 3/8/82) 1.5 E-6 uCi/cc Kr85 (sample taken 3/1/82)

# 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 March 5, 1982, through March 11, 1982, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained no detectable radioactivity.

- 2. Environmental Protection Agency (EPA) Environmental Data.
  - -- The EPA Middletown Office has not received the analytical results for Kr-85 measurements around the TMI site from the EPA's Counting Laboratory at Las Vegás, Nevada. When these results become available, they will be included in a subsequent report.
  - -- No radiation above normally occurring background levels was detected in any of the samples collected from EPA's air and gamma rate networks during the period from March 3, 1982 through March 11, 1982.
- 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:

Sample	Period	I-131 Cs-137 (uC1/cc) (uC1/cc)
HP-310	March 3, 1982 - March 10, 1982	<6.2 E-14 <6.2 E-14

- 4. License Radioactive Material and Radwaste Shipments.
  - -- On Friday, March 5, 1982, 45 drums containing contaminated laundry from Unit 1 and Unit 2 were shipped to Tri-State Industrial Laundries, Utica, New York.
  - -- On Tuesday, March 9, 1982, fourteen liquid samples from Unit-2-(various plant locations) were shipped to the Westinghouse Electric Corp. Laboratory, Waltz Mills Site, Madison, Pennsylvania.
  - -- On Thursday, March 9, 1982, one package (Unit 2 air sample HPR 221 B) was mailed to Science Applications Inc., Rockville, Maryland.
  - -- On Thursday, March 9, 1982, two liquid samples from Unit 1 (precoat A) were shipped to the Westinghouse Electric Corp. Laboratory, Waltz Mills Site, Madison, Pennsylvania.

## Major Activities

1. Submerged Demineralizer System (SDS). Processing of batch 22 was completed on March 6, 1982. The batch 22 process parameters are included in Attachment 1. Processing of batch 23 (bleed tank water) continued throughout the week. After batch 23 is processed, the SDS will be secured for minor maintenance. Reactor coolant system water processing through the SDS is scheduled to commence in May.

- 2. EPICOR II. The EPICOR II system continued to process SDS effluents during the week. Performance parameters are included in Attachment 1.
- Reactor Building Entries. The gross decontamination experiment has proceeded on schedule during the past week. The following surfaces have been flushed with water in various combinations of pressure and temperature: 305 ft. elevation floors, 347 ft. elevation floors, polar crane surfaces and the refueling pool. Approximately 6,000 gallons of processed water have been used for the flushes. The effectiveness of the flushes in removing surface contamination and decreasing ambient radiation levels will be evaluated after the post decontamination surveys are completed. The flushing and data gathering phase of the experiment is scheduled to be completed during four reactor building entries next week.
- 4. Groundwater Monitoring Program. Based on the most recent test boring samples, tritium concentrations in the ground water have remained essentially in the same range as reported in previous Weekly Status Reports. Attachment 2 contains a sketch of the test boring locations with the most recent tritium concentrations in pCi/liter annotated next to each boring. Weekly water samples are taken from borings 1, 2, 3, 10, 16, and 17. The other test borings are sampled monthly. Except for tritium, there have been no other radioisotopes detected in the latest water samples.
- 5. Control Rod Drive Removal Practice. A proposed technique for inspecting the interior of the Unit 2 reactor vessel with a television camera will be practiced on Monday and Tuesday, March 15 and 16, 1982, in the Unit 1 reactor building. The technique was proposed by the Technical Assistance and Advisory Group (TAAG) and involves removing a control rod drive lead screw to make an opening in the top of the reactor vessel head for television camera insertion. It is expected that this technique will permit a visual inspection of the top of several fuel assemblies.

The entire procedure will be implemented on the Unit 1 reactor in conjunction with the Unit 1 examination of primary system components for signs of possible deterioration. The Unit 1 lead screw removal, visual inspection of the reactor vessel interior, and lead screw replacement is scheduled to be performed over the two day period.

### Past Meeting

On Saturday, March 13, 1982, Lake Barrett addressed the Society of Manufacturing Engineers in Williamsport, PA. The major topics of discussion were nuclear power, the accident at TMI, TMI cleanup, waste management, risks of alternate energy production and public confidence in nuclear energy.

### Future Meetings

On Wednesday, April 14, 1982, Lake Barrett will be the keynote speaker for the Southern Pennsylvania Association Occupational Health Nurses, to be held at the Holiday Inn in York.

# ATTACHMENT 1

# SOS Performance for Batch Number 22

Radionuclide	Average Influent (uc/ml)	Average Effluent (uc/ml)	Average DF
Cestum 137	1.2 x 10 <sup>2</sup>	5.4 x 10 <sup>-4</sup>	2.3 x 10 <sup>5</sup>
Strontium 90	4.7	5.7 x 10-3	8.3 x 10 <sup>2</sup>

# EPICOR II Performance March 2, 1982 to March 8, 1982

Radionuclide	Average Influent (uc/ml)	Average Effluent (uc/ml)	Average DF
Ceşium 137	4.8 x 10-4	1.8 x 10-7	2.7 x 10 <sup>3</sup>
Strontium 90	5.4 x 10-3	<1.3 x 10-5	>4.2 x 10 <sup>2</sup>
Antimony 125	5.0 x 10-3	<2.8 x 10-7	>1.8 x 10 <sup>4</sup>

# TEST BORING H3 CONCENTRATIONS

