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March 29, 1982
NRC/TMI-B2-016



MEMORANDUM FOR: Harold R. Danton, 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 March 21, 1982 to March 27, 1982. Major items included in this report are:

- Liquid Effluents
- NRC and EPA Environmental Data
- Radioactive Material and Radwaste Shipments
- TMI Occupational Exposure
- Submerged Demineralizer System Status
- EPICOR II
- Reactor Building Entries
- Reactor Coolant System Water Processing
- Purification System Filter Removal
- Public Meetings

Lake H. Barrett
Deputy Program Director
TMI Program Office

Enclosure: As stated

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Harold R. Denton
Bernard J. Snyder

-2-

March 29, 1982

cc w/encl:

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OFFICE	TM1PO	TM1PO	TM1PO	TM1PO	TM1PO	TM1PO
NAME	GKalman/jes	RConte	MShanbaky	AFasano	RBellamy	LBarrett
DATE	3/1/82	3/1/82	3/1/82	3/1/82	3/1/82	3/1/82

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

March 21, 1982 - March 27, 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 "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, March 26, 1982) (approximate values)

Average Incore Thermocouples: 101°F

Maximum Incore Thermocouple: 133°F

RCS Loop Temperatures:

	A	B
Hot Leg	95°F	98°F
Cold Leg (1)	79°F	82°F
(2)	82°F	89°F

RCS Pressure: 100 psig

Reactor Building: Temperature: 64°F

Water level: Elevation 283.2 ft. (0.5 ft. from floor)

Pressure: -0.15 psig

Airborne Radionuclide Concentrations:

1.1 E-6 uCi/cc H³
(sample taken 3/24/82)

<7.5 E-6 uCi/cc Kr⁸⁵
(sample taken 3/1/82)

1. Effluent and Environmental (Radiological) Information

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 19, 1982, through March 25, 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 Vegas, Nevada. These results 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 7, 1982 through March 25, 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:

<u>Sample</u>	<u>Period</u>	<u>I-131</u> <u>(uCi/cc)</u>	<u>Cs-137</u> <u>(uCi/cc)</u>
HP-312*	March 17, 1982 - March 24, 1981	<6.1 E-14	<6.1 E-14

(*The NRC sample number reported for the week of March 10-17, 1982, was in error. HP-311 is the correct identification number.)

4. Licensee Radioactive Material and Radwaste Shipments

- On Monday, March 22, 1982, seven liquid samples from Unit 1 (various plant locations) were shipped to the Westinghouse Electric Company Laboratory, Madison, Pennsylvania.
- On Monday, March 22, 1982, 72 drums and six metal containers of Low Specific Activity (LSA) waste from Unit 1 were shipped to Chem-Nuclear Systems, Inc., Barnwell, South Carolina.
- On Wednesday, March 24, 1982, two liquid samples from Unit 1 were shipped to the Westinghouse Electric Company Laboratory, Madison, Pennsylvania:
- On Wednesday, March 24, 1982, fourteen liquid samples from the Unit 2 SDS (Submerged Demineralizer System) were shipped to Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- On Thursday, March 25, 1982, an internally contaminated piece of equipment from the Unit 2 SDS was shipped to the Westinghouse Electric Company, Forest Hills Site, Pittsburgh, Pennsylvania.

5. TMI Occupational Exposure

Licensee TLD (Thermoluminescent Dosimeter) records indicate the following Unit 2 total occupational radiation exposure for 1982:

February 1982	29 man-rem
Total 1982 (January-February)	46 man-rem

Major Activities

1. Submerged Demineralizer System (SDS). The SDS is secured for minor maintenance.
2. EPICOR II. The EPICOR II system processed the last of the SDS effluent and also the EPICOR II building sump. Performance parameters are enclosed in Attachment 1.
3. Reactor Building Entries. Except for sample analysis and data interpretation, the gross decontamination experiment was concluded with three reactor building entries during the week of March 21, 1982. The following tasks were performed in the reactor building this week (week of March 21, 1982);
 - Decontamination of a 150 ft² section of the reactor building floor using a detergent and mechanical scrubber,
 - Decontamination of a 150 ft² section of the reactor building floor using a phosphoric acid solution and a mechanical scrubber,
 - Decontamination of a 500 ft² section of the reactor building floor using a strippable coating,
 - Portable gamma spectrometer survey of the 305 ft. and 347 ft. elevations,
 - Concrete bore samples obtained,
 - Radiation survey of polar crane,
 - Still and motion picture photography.

The effectiveness of the gross decontamination techniques will be reported in future Weekly Status Reports. One reactor building entry is scheduled for the week of March 28, 1982.

4. Reactor Coolant System (RCS) Processing. Engineering efforts are still in progress for processing the RCS. The NRC TMI/PO site office has received and is reviewing the first of the procedures needed for RCS processing. The majority of the procedures are expected to be received during the next two weeks.
5. Purification System Filter Removal. A team of eight technicians removed the remaining four filters from the letdown and makeup systems (purification system). Two of the filters had been removed from the system earlier (1981). Filters upstream and downstream of the purification demineralizers and filters on the discharge of the high pressure makeup pumps were removed last week. Following the filter removals, technicians used vacuum cleaners to remove debris from the filter housings. The filters are scheduled to be shipped in April to a DOE contractor for analysis.

On Monday, March 22, 1982, the licensee declared an unusual event when control room operators noticed that excessive makeup was going to the reactor coolant system during the filter removal operation. It was determined that the problem was caused by leakage through a reach rod operated filter isolation valve. When technicians opened the filter housing, approximately 150 gallons of makeup system (SPC system) water spilled onto the floor of the filter cubicle. The water was vacuumed off the floor into 55 gallon drums. The highest dose rate measured on contact with any of the drums was 350 mr/hr. Operators later rerouted the 90 psig makeup water flow and closed additional valves in series to stop the leak. The total personnel exposure for the filter removal and cleanup operation was approximately one man-rem.

Meeting Held

On Tuesday, March 23, 1982, the TMI Advisory Panel met with the NRC Commissioners in Washington, DC. The Advisory Panel asked the Commission to increase its efforts to resolve the political/financial problems that are delaying the cleanup. The Commission has written to U.S. Senator James McClure, Chairman of the Energy Subcommittee, Representative Alan Simpson, Chairman of the Subcommittee on Nuclear Regulation, and Representative Morris Udall, Chairman of the Subcommittee on Energy and the Environment, to urge that "greater federal participation in assuring financial viability is a prerequisite to an acceptably rapid (cleanup) program." A copy of the letter to Senator McClure is enclosed as Attachment 2.

Advisory Panel Chairman John Minnich, wrote Chairman Palladino on March 17, 1982, with the Panel's second report, concluding that there is as yet no significant financial commitment to fund the cleanup. The report also concludes that "given the long-term serious hazards posed by TMI-2," the Commission should proceed expeditiously to insure the cleanup. A copy of Chairman Minnich's letter is enclosed as Attachment 3.

The citizen's advisory panel made several suggestions to the Commissioners at the March 23, 1982 meeting that are being considered which are:

1. Urge President Reagan to appoint a White House staff member to serve as a focal point to resolve TMI problems.
2. Work to convince its utility companies to contribute funds for the TMI cleanup, e.g. implement the Edison Electric Institute recommendation.
3. Hold a Commission meeting on the cleanup in the Harrisburg area, to hear public comments on the cleanup plans.

Future Meeting

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

EPICOR II Performance
March 16, 1982 to March 22, 1982

<u>Radionuclide</u>	<u>Average Influent (uc/ml)</u>	<u>Average Effluent (uc/ml)</u>	<u>Average DF</u>
Cesium 137	1.3×10^{-2}	2.8×10^{-7}	4.7×10^4
Strontium 90	1.4×10^{-2}	$<7.5 \times 10^{-5}$	$>8.2 \times 10^2$
Antimony 125	2.7×10^{-3}	$<2.9 \times 10^{-7}$	$>9.4 \times 10^3$