

September 10, 1984
NRC/TMI-84-067

MEMORANDUM FOR: Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Bernard J. Snyder, Program Director
TMI Program Office

FROM: William D. Travers, Deputy Program Director
TMI Program Office

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT FOR
SEPTEMBER 1, 1984 - SEPTEMBER 8, 1984

Data from effluent and environmental monitoring systems indicated no plant release in excess of regulatory limits. Plant parameters have shown no significant changes. A potential skin overexposure has been identified by the licensee and an investigation is underway to identify the source. Site activities this period included: scabbling of floor surfaces in the reactor building, solidification of spent resins and oily wastes; auxiliary and fuel handling building decontamination and routine waste processing.

Significant items covered in the enclosure are:

- Potential Skin Overexposure
- Reactor Building Activities
- Auxiliary and Fuel Handling Building Activities
- Public Meetings

Summary sheets included in this report are:

- Liquid Effluent and Environmental Data
- Radioactive Material/Radioactive Waste Shipments
- Plant Status Data

ORIGINAL SIGNED BY:
Philip J. Grant for//
William D. Travers
Deputy Program Director
TMI Program Office

Enclosure: As stated

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THI-2 Project

Section File

OFFICE	THIPO	THIPO	THIPO	THIPO			
DATE	9/10/84	9/10/84	9/10/84	9/10/84			

ENCLOSURE

POTENTIAL SKIN OVEREXPOSURE:

A potential skin overexposure to a TMI-2 contractor employee was identified by the licensee on September 6, 1984. The licensee is investigating the circumstances and will report the results to TMIPO. The TMIPO is following the investigation. Initial data indicate a possible skin dose to beta radiation of 28.8 rem. Applicable limits for the skin of the whole body are 7.5 rem per calendar quarter (10 CFR 20.101(a)). An overexposure requires a written report within 30 days (10 CFR 20.405(a)(1)(i)). Since the dose appears to be less than 30 rem a 24 hour notification was not required (10 CFR 20.403(b)(1)). The potential overexposure was identified during normal monthly processing of TLDs (thermoluminescent dosimeters) worn within Unit 2 during August 1984.

Evaluation of the TLD readings indicate an energy level between 60 and 80 KeV. No known TMI-2 radiation source emits beta energies in that range. Gamma exposure was indicated to be 177 millirem. Self-reading pocket dosimeter results for the month of August were 162 mRem. The TLD badge does not exhibit any sign of tampering or radioactive contamination, and shows no indication of physical deterioration or damage.

In addition to a whole body count of the individual, the licensee's investigation includes steps to determine: the serviceability and accuracy of the TLD; the exposure of the individual since September 1, 1984; the exposures received by the individual's co-workers; and whether a medical radioisotope administration could be involved. The individual has been removed from all radiation related work until completion of the investigation. NRC and GPU issued public information press releases.

REACTOR BUILDING ACTIVITIES:

Reactor building decontamination is continuing using scabbling machines to remove the top 1/8 inch of floor surface. Scabbling and recoating of about 65% of the 347 ft. elevation (refueling floor) surfaces is complete. The general dose rate reduction continues to be about a factor of 2. The future scabbling effort may then be directed to the 305 ft. elevation floor surfaces. The lowest floor level in the reactor building, the 282 ft. elevation, is still inaccessible to personnel due to high radiation levels. Robot mounted scabbling machines and closed circuit television cameras are being tested and evaluated for potential use on the 282 ft. elevation.

Next week, workers will commence training with plenum inspection tools and procedures on a reactor vessel mockup in the turbine building. The pre-removal inspection of the plenum is scheduled to commence in October.

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

Work continues on the "A" fuel pool refurbishment in preparation for the scheduled July 1985 defueling. The standpipe and pump feeding to the submerged demineralizer system were removed this week. The next phase will include the removal of concrete shields and steel over the two remaining upper tanks and removal of the tanks to provide access to the lower tanks. Once removed, the tanks will be stored onsite pending final disposition.

Preoperational testing of the makeup and purification demineralizer elution system identified leaks in the processed water supply manifold. The leaks have been repaired and the testing is continuing. It is anticipated that the system will be operational by late September.

PUBLIC MEETINGS:

1. On September 19, 1984, the Advisory Panel for the Decontamination of Three Mile Island Unit 2 will meet from 7:00 PM to 10:00 PM in the Holiday Inn, 23 South Second Street, Harrisburg, Pennsylvania. The meeting will be open to the public.

At this meeting the Panel will receive a presentation from the NRC staff on the staff's findings relative to the issue of alleged harassment by the licensee's management of specific individuals in the employment of GPUNC over issues of health and safety. The Panel will then hold a general discussion on alleged harassment of employees by management over issues of health and safety at TMI-2. The licensee will also provide the Panel with an update on anticipated funding of the cleanup effort for calendar year 1985 and beyond. The Panel will report on any issues relative to the TMI-2 cleanup effort contained in specific TMI-1 restart NRC Commission Meeting transcripts.

Persons desiring to submit topics or questions for consideration by the Advisory Panel are asked to contact, in writing, Mayor Arthur Morris, 120 North Duke Street, Lancaster, Pennsylvania 17602. Persons desiring the opportunity to speak before the Panel are asked to contact Mr. Thomas Smithgall at 2122 Marietta Avenue, Lancaster, Pennsylvania 17603 (telephone 717-291-1041).

2. On September 28, 1984, Philip Grant will participate in a panel discussion on the broad spectrum of nuclear issues with members of the private and public sector (e.g., Union of Concerned Scientists, Public Information Resource Center, Pennsylvania Power and Light, etc.). The seminar will be held at the Lancaster Country Day School Faculty retreat at Timberline Lodge, Strasburg, Pennsylvania.

APPENDIX 1

LIQUID EFFLUENT AND ENVIRONMENTAL DATA

GPU Nuclear

Based on sampling and monitoring, liquid effluents from the TMI site released to the Susquehanna River were determined to be within regulatory limits and in accordance with NRC requirements and the City of Lancaster Agreement.

During the period August 31 through September 6, 1984, liquid effluents contained no detectable radioactivity at the discharge point. Individual effluent sources originating within Unit 2 contained minute amounts of radioactivity. Calculations indicate that less than 1.1 E-6 (0.0000016) curies of Cs-134; 8.9 E-5 (0.000089) curies of Cs-137; 1.3 E-4 (0.00013) curies of gross beta radioactivity; and 1.2 E-6 (0.000012) curies of tritium (H-3) were discharged.

Environmental Protection Agency

Lancaster Water Samples: 8 samples

Period Covered: August 19 - August 26, 1984

Results: Gamma Scan Negative for reactor related radioactivity

TMI Water Samples: 8 samples

Period Covered: August 18 - August 26, 1984

Results: Gamma Scan Negative for reactor related radioactivity

NRC Environmental Data

The NRC operated continuous outdoor air sampler at the TMI site did not detect any reactor related radioactivity. The air sampler parameters are listed below. The analysis results were less than the lower limit of detectability of the analytical instruments: 1.0 E-13 uCi/cc for I-131 and 1.0 E-13 uCi/cc for Cs-137.

<u>Sample</u>	<u>Period</u>	<u>Volume</u>
HP-435	August 29 - September 5, 1984	349.6 m^3

APPENDIX 2

AUGUST 1984 SHIPMENTS: RADIOACTIVE MATERIAL/RADIOACTIVE WASTE

- On August 7, 1984, a Unit 2 sample taken from the auxiliary building sump was shipped to Babcock & Wilcox Research Center at Lynchburg, Virginia.
- on August 7, 1984, a Unit 1 dewatered resin liner was shipped to the Barnwell Waste Management Facility at Barnwell, South Carolina.
- On August 8, 1984, a combined Unit 1 and Unit 2 contaminated laundry shipment of 49 drums and 4 boxes of protective clothing was shipped to Interstate Nuclear Services at Royersford, Pennsylvania.
- On August 9, 1984, a Unit 2 shipment consisting of miscellaneous control rod drive mechanism parts was shipped to Quadrex Corporation at Oak Ridge, Tennessee.
- On August 14, 1984, a Unit 1 shipment, consisting of a decay heat removal "A" water sample, was shipped to Teledyne Isotopes, Westwood, New Jersey.
- On August 14, 1984, Unit 1 shipped a dewatered spent resin liner to the Barnwell Waste Management Facility, Barnwell, South Carolina.
- On August 15, 1984, a combined Unit 1 and Unit 2 contaminated laundry shipment of 58 drums and 4 boxes was shipped to Interstate Nuclear Services at Royersford, Pennsylvania.
- On August 16, 1984, Unit 1 tube plugs from the once through steam generators (OTSGs) were shipped to Westinghouse Electric at Pittsburgh, Pennsylvania.
- On August 21, 1984, a Unit 1 sample shipment was shipped to NWT Corporation, San Jose, California.
- On August 21, 1984, Unit 1 tube plugs from the OTSGs were shipped to Westinghouse Electric at Pittsburgh, Pennsylvania.
- On August 22, 1984, a combined Unit 1 and Unit 2 contaminated laundry shipment of 75 drums and 1 box was shipped to Interstate Nuclear Services, Royersford, Pennsylvania.
- On August 23, 1984, a low level waste shipment (five boxes from Unit 2 and five boxes and a solidified spent resin liner from Unit 1) was shipped to the Hanford Burial Facility, Hanford, Washington.
- On August 24, 1984, a Unit 2 shipment consisting of reactor building atmospheric monitor HP-R-227 was shipped to EG&G Idaho at Scoville, Idaho for evaluation.
- On August 27, 1984, a dewatered Unit 1 spent resin liner was shipped to the Barnwell Waste Management Facility, Barnwell, South Carolina.

- On August 29, 1984, a combined Unit 1 and Unit 2 contaminated laundry shipment of 69 drums and 6 boxes was shipped to Interstate Nuclear Services, Royersford, Pennsylvania.
- On August 30, 1984, a Unit 2 shipment consisting of a portable cement solidification system was shipped to Westinghouse Hittman Nuclear at Columbia, Maryland.
- On August 30, 1984, a Unit 2 shipment consisting of air sample filter paper was shipped to Teledyne Isotopes at Westwood, New Jersey.
- On August 31, 1984, a Unit 1 shipment consisting of liquid laboratory samples was shipped to Teledyne Isotopes, Westwood, New Jersey.

APPENDIX 3

PLANT STATUS

Reactor Vessel Configuration: Reactor vessel open with modified internals indexing fixture installed

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

Available Core Cooling/Makeup Sources:

Standby pressure control (SPC) system

Reactor coolant bleed tank (RCBT) water transfer system

Mini decay heat removal (MDHR) system

Major Parameters as of 5:00 AM, September 7, 1984 (approximate values):

Reactor Coolant System:

Loop Temperatures:

	A	B
Cold Leg (1)	60°F	66°F
(2)	60°F	65°F

Reactor Core:

Average Incore Thermocouples:* 95°F

Maximum Incore Thermocouple:* 135°F

Decay Heat: 16 kilowatts

Reactor Building: Temperature: 62°F
Pressure: -0.05 psig

Airborne Radionuclide Concentrations:

Tritium: 3.0 E-8 uCi/cc (sample 9/4/84)

Particulates: 1.8 E-9 uCi/cc (sample 9/5/84)
predominately Cs-137

*Uncertainties exist as to the exact location and accuracy of these readings.