

September 17, 1984
NRC/TMI-84-068

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 9, 1984 - SEPTEMBER 15, 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 identified by the licensee has been discounted. Site activities this period included: scabbling and sealing of floor surfaces in the reactor building, auxiliary and fuel handling building decontamination, continued preparations of the "A" spent fuel pool 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
- Plant Status Data

ORIGINAL SIGNED BY:
William D. Travers

William D. Travers
Deputy Program Director
TMI Program Office

Enclosure: As stated

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DATE ▶	9/17/84	9/17/84	9/17/84	9/17/84		

ENCLOSURE

POTENTIAL SKIN OVEREXPOSURE:

The potential beta radiation overexposure of the skin of a TMI-2 worker (Weekly Status Report dated September 9, 1984) has been discounted following the licensee's investigation. Facts revealed during the exhaustive investigation appear to indicate anomalies in the two thermoluminescent dosimeter (TLD) chips which monitor for beta radiation. The licensee performed surveys of work areas, correlation with the individual's self reader dosimeter readings, and with the exposures recorded by co-worker TLDs in an attempt to substantiate the high exposure readings. When these failed, the licensee began to explore possibilities whereby the badge could read an exposure not actually received by the worker. This phase of the investigation included a research of the history of the high reading TLD badge. It was discovered that on two previous occasions the badge, which had not been issued, indicated high readings following periods of storage. (During the only other occasion the badge was issued for use, it appeared to have functioned normally.) The investigation of the high reading badge will continue in an attempt to identify the cause of the atypical behavior exhibited by the TLD elements. In addition, the licensee will check histories on the entire inventory of badges to identify other TLD element exhibiting similar behavior.

The licensee established, based on these anomalous readings and the results of the numerous other possibilities considered, that the individual did not receive the dose indicated by the badge. The dosimetry department will therefore perform a dose assessment for the worker in question and make an August dose assignment.

NRC is currently inspecting all aspects of the use of the questioned TLD.

REACTOR BUILDING ACTIVITIES:

Reactor building decontamination and housekeeping are continuing while workers train with specially designed tools and cameras in preparation for the plenum inspection. A mockup of the reactor vessel has been constructed in the turbine building and is being used for the training. The implementation of some plenum inspection procedures has commenced. Measurements of clearances to verify that four hydraulic jacks can be installed between the core barrel and the plenum have been completed. Modifications of the jacks may be required to fit the "as built" gaps in the plenum assembly. The jacks will be used to initiate the plenum lift. The jacking concept was devised to ensure a sufficient and level lifting force during the initial 4 inches of the plenum lift. The plenum jacking is scheduled to be performed in December 1984. However, the clearance measurements will be evaluated and if jack modifications are determined to be required, the plenum lift may be delayed. Most of the remaining plenum inspection procedures are scheduled to be performed in October.

The NRC staff has approved the plenum lift preparatory activities including removing components which may be attached to the plenum underside.

Preliminary measurements following the scabbling of the floor surfaces on the 347 ft. elevation (the refueling floor) indicate that average area dose rates decreased from 75 to 35 mR/hr in the scabbled areas. The average reactor building airborne activity has decreased to approximately 1 MPC. Workers assigned to selected tasks have been going into the reactor building without respiratory protection. This practice is expected to be expanded to include a wider variety of tasks during future entries.

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

Work continues on the "A" fuel pool refurbishment in preparation for the scheduled July 1985 defueling. This week's work included the removal of concrete shields and steel over the two remaining upper tanks and preparation for the 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 is complete. Training of operations personnel has started and will take about one week to complete. A safety evaluation of the process has been submitted to the TMIPO staff and is currently under review. It is anticipated that the elution process will begin the week of September 24, 1984 and will continue for about six weeks.

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 September 7, 1984 through September 13, 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 5.3 E-6 (0.0000053) of a curie of Cs-137 and less than 1.1 E-5 (0.000011) of a curie of gross beta activity were discharged.

Environmental Protection Agency

Lancaster Water Samples: 7 samples

Period Covered: August 27 - September 2, 1984

Results: Gamma Scan Negative for reactor related radioactivity

TMI Water Samples: 7 samples

Period Covered: August 26 - September 2, 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-436	September 5-13, 1984	322.1 m ³

APPENDIX 2

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 6:00 AM, September 14, 1984 (approximate values):

Reactor Coolant System:

Loop Temperatures:

	A	B
Cold Leg (1)	60°F	66°F
(2)	61°F	65°F

Reactor Core:

Average Incore Thermocouples:* 93°F
Maximum Incore Thermocouple:* 105°F
Decay Heat: 15.5 kilowatts

Reactor Building: Temperature: 62°F
Pressure: -0.03 psig

Airborne Radionuclide Concentrations:

Tritium: 4.3 E-8 uCi/cc (sample 9/11/84)
Particulates: 6.8 E-10 uCi/cc (sample 9/13/84)
predominately Cs-137

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