January 16, 1984
NRC/TMI-84-007

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 FOR
January 8, 1984 - January 14, 1984

Data from effluent and environmental monitoring systems indicated no plant releases
in excess of regulatory limits. Waste shipments continued on a routine basis.
Plant parameters showed no significant changes. The reactor coolant system is
depressurized and RCS level remains at 321'6".

Site activities this period included: Auxiliary and Fuel Handling Building decon-
tamination and "A" spent fuel pool refurbishment. A reactor building entry was made
in support of technical specifications and miscellaneous tasks. (For more details
see appropriate paragraphs below.)

Significant items covered in the enclosure are:

   -- Reactor Building Activities
   -- Spent Fuel Pool "A" Refurbishment
   -- Auxiliary and Fuel Handling Building Activities
   -- Waste Management Activities
   -- Public Meetings

Data summary sheets included in this report are:

   -- Liquid Effluent Data
   -- Environmental Data
   -- Radioactive Material/Radwaste Shipment Data
   -- Water Processing Data
   -- Plant Status Data

[Signature]
Lake H. Barrett
Deputy Program Director
TMI Program Office
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THI SITE r/f
CENTRAL FILE
NRC PDR
LOCAL PDR
TMI-2 Project
Section File
ENCL0SURE

REACTOR BUILDING ACTIVITIES:

A reactor building recovery schedule is being developed based on projected funding for 1984. As a minimum, weekly entries will continue in early 1984 to support technical specification requirements for reactor coolant system (RCS) water samples for boron analysis. The entry frequency is expected to increase in February to support polar crane activities, canal seal plate modification and partial detensioning of the reactor vessel head closure studs. The polar crane is scheduled to move the missile shields in late February and the qualification load test is tentatively scheduled to be completed in late April 1984. In addition to the RCS sampling the major activity scheduled for next week includes trial fitting the canal seal plate which will form the seal between the reactor vessel ledge and the canal floor for reflood purposes. Additionally the TMIPO staff is awaiting responses from the licensee regarding the stud detensioning activity which is tentatively scheduled to begin in late March.

SPENT FUEL POOL "A" REFURBISHMENT:

Eight of the sixteen shield slabs have been removed from over the pool. Movement of the eighth slab to the decontamination facility and its processing will end this work until late summer in order that additional resources may be applied to head lift preparations in the reactor building.

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

The new decontamination facility is near fully operational status. Completion of the functional testing and training of personnel in the operation of the vibratory finisher will make the facility fully operational.

Decontamination work is continuing in the auxiliary and fuel handling buildings. Shielding of hot spots on the floor of the B and C bleed tank room on the 280' level has been completed in preparation for work in the room necessary to decontamination. Decontamination work was slowed this week by building ventilation maintenance.

WASTE MANAGEMENT ACTIVITIES:

SDS liner D20037 has been rescheduled for shipment to Rockwell Hanford on January 19, 1984, following replacement of the shipping container gasket. This waste liner, which will be loaded with a hydrogen/oxygen gas recombiner, will be the 15th SDS waste liner in a group of 19 scheduled to be shipped to Hanford, Washington.

PUBLIC MEETINGS:

Past Meetings:

1. On January 12, 1984, Lake Barrett met with the Concerned Mothers of Middletown to discuss cleanup operations at TMI-2. They expressed their concern that TMI-1 should not be restarted prior to completion of the TMI-2 cleanup.
On January 12, 1984, the advisory Panel for the Decontamination of Three Mile Island, Unit 2, held a meeting in Harrisburg, PA. Present at the meeting was a new member, Kenneth L. Miller appointed by the NRC Chairman on January 11, 1984. Mr. Miller is the Director of the Division of Health Physics and Associate Professor of Radiology at the Milton S. Hershey Medical Center, Hershey, PA.

Representatives from NRC, EPA and DOE provided an update of their respective agency's activities relative to the cleanup effort.

Panel member Mr. Thomas Gerusky, Director, Pennsylvania Bureau of Radiation Protection, paraphrased the contents of a telegram sent to the EEI Board of Directors from the Governor of Pennsylvania's Office on Policy and Planning. The telegram encouraged support for the Thornburgh Funding Plan to finance the cleanup of TMI Unit 2.

Mr. Philip Clark, President GPUN Corporation, and Mr. Edwin Kintner, Executive Vice President GPUN Corporation, provided the Panel with a discussion of funding for 1984. Mr. Clark stated that the company had firm commitments for funding at the level of $75 million. With the $75 million the company feels that it can make significant useful progress towards cleanup of Unit 2. With additional funds, Mr. Clark felt that additional progress could be made. The company is presently investigating other sources of funding, including customer revenues, and EEI.

**Future Meetings:**

1. **February 3, 1984**, the Three Mile Island Unit 2 Advisory Panel will meet at 11:00 a.m. with the Nuclear Regulatory Commission at 1717 H Street, Washington, DC. The public may observe the meeting.

2. **February 9, 1984**, the Three Mile Island Unit 2 Advisory Panel will meet from 7:00 PM to 10:00 PM at a location to be determined later this week. The meeting will be open to the public. The major topic for the meeting will be future EPA monitoring plans and the NRC PEIS supplement on occupational exposure. Persons that have questions pertaining to the TMI-2 cleanup that would like to have them considered or addressed by the Advisory Panel and persons desiring the opportunity to speak before the Advisory Panel on TMI-2 cleanup related items are asked to contact, in writing, Mr. Joel Roth, 4705 Carlisle Pike, Mechanicsburg, PA 17055.

3. **On February 15, 1984**, NRC staff will hold a public meeting to receive public comments on the draft Supplement 1 to the Programmatic Environmental Impact Statement (PEIS, NUREG-0683, Supplement 1). The meeting will be held at 7:00 PM at the Middletown High School auditorium, 1155 N. Union Street, Middletown, PA. Single copies of the draft Supplement may be obtained by writing to the Director, Division of Technical Information and Document Control, U.S. Nuclear Regulatory Commission, Washington, DC 20555, or the Deputy Program Director, NRC TMI Program Office, P.O. Box 311, Middletown, PA 17057. The staff welcomes comments from the public on the draft Supplement. All comments will be reviewed and taken into consideration when the NRC staff prepares the final Supplement to the PEIS. The comments should be received by February 29, 1984, and addressed to Dr. Bernard J. Snyder, Program Director, TMI Program Office, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555.
APPENDIX 1

LIQUID EFFLUENT 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 January 6 through January 12, 1984 no liquid effluent releases were made from individual sources within Unit 2.

Environmental Protection Agency

Lancaster Water Samples: 7 samples
Period Covered: December 18 - December 24, 1983
Results: Gamma Scan Negative

TMI Water Samples: 6 samples
Period Covered: December 17 - December 24, 1983
Results: Gamma Scan Negative
APPENDIX 2

ENVIRONMENTAL DATA

EPA Environmental Data

The EPA measures Kr-85 concentrations at several environmental monitoring stations and reported the following results:

<table>
<thead>
<tr>
<th>Location</th>
<th>December 9 - December 23, 1983 (pCi/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goldsboro</td>
<td>19</td>
</tr>
<tr>
<td>Middletown</td>
<td>20</td>
</tr>
<tr>
<td>Yorkhaven</td>
<td>20</td>
</tr>
<tr>
<td>TMI Observation Center</td>
<td>22</td>
</tr>
</tbody>
</table>

-- 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 January 3, 1984 through January 10, 1984.

NRC Environmental Data

Results from the NRC continuous air sampler monitoring of the TMI site environment are as follows:

<table>
<thead>
<tr>
<th>Sample</th>
<th>Period</th>
<th>I-131</th>
<th>Cs-137</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-401</td>
<td>January 4, 1984 - January 12, 1984</td>
<td>&lt;7.8 E-14</td>
<td>&lt;7.8 E-14</td>
</tr>
</tbody>
</table>
APPENDIX 3

RADIOACTIVE MATERIALS/RADWASTE SHIPMENT DATA

-- January 12, 1984, a box containing two 1-liter liquid samples from the TMI-1 waste evaporator condensate storage tank and reactor coolant letdown tank was shipped to Teledyne Isotopes, Westwood, New Jersey.

-- On January 13, 1984, 107 drums of contaminated laundry from TMI-1 and TMI-2 were shipped to Interstate Uniform Service, New Kensington, Pennsylvania.

-- On January 13, 1984, a drum containing liquid and solid samples from the TMI-2 reactor building sump and reactor coolant drain tank was shipped to Idaho National Engineering Laboratory, Scoville, Idaho.
APPENDIX 4

WATER PROCESSING DATA

Submerged Demineralizer System (SDS)

SDS processed Batch 69 (9,509 gallons) and Batch 70 (10,578 gallons) from January 5 through January 9, 1984. Batch 69 was from the B monitor tank and was a recycle batch due to phosphorous effects on Batch 68. Batch 70 originated from the B bleed tank. The below listed performance parameter averages are taken from Batch 70.

**SDS Performance Parameters**
January 7, 1984 to January 9, 1984

<table>
<thead>
<tr>
<th>Radionuclide</th>
<th>Average Influent (uc/ml)</th>
<th>Average Effluent (uc/ml)</th>
<th>Percent Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesium 137</td>
<td>2.5 E-1</td>
<td>3.7 E-3</td>
<td>98.5</td>
</tr>
<tr>
<td>Strontium 90</td>
<td>1.7 E-1</td>
<td>1.2 E-2</td>
<td>92.9</td>
</tr>
</tbody>
</table>

**EPICOR II**

During the period of January 2 through January 9, 1984, EPICOR was idle. During this time, liner F51 was removed from the system and liner F52 installed. On January 10, 1984, EPICOR processed Batch 201 (10,090 gallons) from A monitor tank. The averages of the performance parameters of Batch 201 are shown below.

**EPICOR Performance Parameters**
January 10, 1984 to January 10, 1984

<table>
<thead>
<tr>
<th>Radionuclide</th>
<th>Average Influent (uc/ml)</th>
<th>Average Effluent (uc/ml)</th>
<th>Percent Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesium 137</td>
<td>6.0 E-5</td>
<td>1.6 E-7</td>
<td>99.73</td>
</tr>
<tr>
<td>Strontium 90</td>
<td>1.5 E-2</td>
<td>8.4 E-6</td>
<td>99.94</td>
</tr>
<tr>
<td>Antimony 125</td>
<td>9.9 E-4</td>
<td>2.6 E-7</td>
<td>99.97</td>
</tr>
</tbody>
</table>
APPENDIX 5

PLANT STATUS

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

Available Core Cooling Mode: Mini Decay Heat Removal (MDHR) system.

RCS Pressure Control Mode: N/A

Major Parameters as of 5:00 AM, January 13, 1984 (approximate values):

- Average Incore Thermocouples*: 84°F
- Maximum Incore Thermocouple*: 93°F

RCS Loop Temperatures:

- Hot Leg** 59°F 65°F
- Cold Leg (1) 55°F 65°F
- (2) 58°F 65°F

Reactor Core Decay Heat: 19 Kilowatts

RCS Pressure: 0 psig

Reactor Building: Temperature: 57°F
- Pressure: -0.1 psig

Airborne Radionuclide Concentrations:

- 2.0 E-7 uCi/cc H³ (Tritium) (sample taken 1/9/84)
- 2.1 E-9 uCi/cc particulates (predominately Cs-137) (sample taken 1/9/84)

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

**Since the RCS draindown, hot leg temperature detectors are above water level.