MEMORANDUM FOR:  Harold K. Denton, Director  
Office of Nuclear Reactor Regulation  
Bernard J. Snyder, Program Director  
THI Program Office

FROM:  Lake H. Barrett, Deputy Program Director  
THI Program Office

SUBJECT:  NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of May 1, 1983, through May 7, 1983. Major items included in this report are:

-- Liquid Effluents
-- EPA and NRC Environmental Data
-- Radioactive Material andRadwaste Shipments
-- TMI Occupational Exposure
-- Submerged Demineralizer System Status
-- EPICOR II Status
-- SDS Liner Shipments
-- EPICOR II Prefilter Shipments
-- Reactor Building Entries
-- Polar Crane
-- Public Meeting

Lake H. Barrett  
Deputy Program Director  
THI Program Office

Enclosure: As stated

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cc w/encl:
EDO
OGC
Office Directors
Commissioner's Technical Assistants
NRF Division Directors
NRL A/D's
Regional Administrators
IE Division Directors
TAS
EIS
TMI Program Office Staff (15)
PHS
EPA
DOE
RI Division Directors
Public Affairs, RI
State Liaison, RI
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: Standby Pressure Control System.

Major Parameters (as of 5:00 AM, May 6, 1983) (approximate values)

Average Incore Thermocouples*: 91°F
Maximum Incore Thermocouple*: 134°F

RCS Loop Temperatures:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Leg</td>
<td>87°F</td>
<td>85°F</td>
</tr>
<tr>
<td>Cold Leg (1)</td>
<td>76°F</td>
<td>76°F</td>
</tr>
<tr>
<td>(2)</td>
<td>77°F</td>
<td>76°F</td>
</tr>
</tbody>
</table>

RCS Pressure: 64 psig

Reactor Building:

Temperature: 70°F
Pressure: -0.1 psig

Airborne Radionuclide Concentrations:

1.8 E-7 uCi/cc H³
(sample taken 5/5/83)

1.1 E-9 uCi/cc particulates
(sample taken 5/5/83)

1. Effluent and Environmental (Radiological) Information

Liquid effluents from the TMI site released to the Susquehanna River, after sampling and monitoring, were within the regulatory limits and in accordance with NRC requirements and City of Lancaster Agreement.

During the period April 29, 1983, through May 5, 1983, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained minute amounts of radioactivity. Calculations indicate that less than seventeen-millionths (0.000017) of a curie of cesium was discharged.

*Uncertainties exist as to the exact location and accuracy of these readings.
2. Environmental Protection Agency (EPA) Environmental Data

-- The EPA Middletown Office has not received the environmental Kr-85 analytical results for the samples which were taken subsequent to April 15, 1983, 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 the EPA's air and gamma rate networks during the period from April 27, 1983, through May 5, 1983.

3. NRC Environmental Data

-- The following are the NRC air sample analytical results for the onsite continuous air sampler:

<table>
<thead>
<tr>
<th>Sample</th>
<th>Period</th>
<th>I-131 (uCi/cc)</th>
<th>Cs-137 (uCi/cc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-368</td>
<td>April 28 - May 5, 1983</td>
<td>&lt;7.3 E-14</td>
<td>&lt;7.3 E-14</td>
</tr>
</tbody>
</table>

4. Licensee Radioactive Material and Radwaste Shipments

-- On May 2, 1983, two boxes containing steam generator repair equipment taken from Unit 1 were shipped to Babcock and Wilcox, Lynchburg, Virginia.

-- On May 2, 1983, two separate shipments of one 20 WC-4 shipping cask containing a Unit 2 makeup and purification sample were made to Oak Ridge National Laboratories, Oak Ridge, Tennessee.

-- On May 3, 1983, one CNSI 8-120-3 shipping cask (Type B) containing Unit 2 EPICOR prefilter No. PF-23 was shipped to EG&G, Scoville, Idaho.

-- On May 4, 1983, 93 drums containing contaminated laundry from Units 1 and 2 were shipped to Interstate Uniform, New Kensington, Pennsylvania.

-- On May 5, 1983, 8 drums and 8 boxes containing compacted and non-compacted trash from Unit 1 and 2 were shipped to U.S. Ecology, Hanford burial site, Richland, Washington.

-- On May 6, 1983, one box containing Unit 2 reactor building vibration and monitor sensors was mailed to Sandia National Laboratory, Albuquerque, New Mexico.

-- On May 6, 1983, three separate shipments of two Unit 1 solidified evaporator bottoms were made to U.S. Ecology, Hanford burial site, Richland, Washington.
5. **TMI Occupational Exposure**

Licensee TLD (Thermoluminescent Dosimeter) records indicate the following Unit 2 occupational radiation exposures for 1983:

<table>
<thead>
<tr>
<th>Month</th>
<th>Exposures (man-rem)</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1983</td>
<td>41</td>
</tr>
<tr>
<td>Total 1983 (January-March)</td>
<td>133</td>
</tr>
</tbody>
</table>

Man-rem is an expression for the summation of whole body doses to individuals in a group. Thus, if each member of a population group of 1,000 people were to receive a dose of 0.001 rem (1 millirem), or if two people were to receive a dose of 0.5 rem (500 millirem) each, the total man-rem dose in each case would be 1 man-rem.

**Major Activities**

1. **Submerged Demineralizer System (SDS).** SDS began processing the tenth batch of reactor coolant system (RCS) water on May 4, 1983. This batch, comprised of approximately 36,000 gallons, had been staged to the "C" reactor coolant bleed tank by the RCS feed and bleed process. (See Weekly Status Report of May 17, 1982, for feed and bleed process description.) SDS performance parameters will be included with the report for May 16, 1983.

2. **EPICOR II.** EPICOR II is currently in a shutdown mode.

3. **SDS Liner Shipments.** The licensee is making preparations for shipment of the ninth SDS waste liner (D10014). This zeolite liner, which contains approximately 59,800 curies, will be vacuum dried, loaded with a catalytic recombiner and monitored to demonstrate non-combustible gas conditions prior to shipment. Shipment is tentatively scheduled for May 17, 1983.

4. **EPICOR II Prefilter (PF) Shipment.** One EPICOR II prefiltter (PF-23) was shipped from TMI to the Idaho National Engineering Laboratory (INEL) on May 3, 1983. This shipment arrived in Scoville, Idaho, on May 6, 1983. This represents a total of 37 prefilters (in a group of 50) that have been shipped by the Department of Energy to INEL. No shipments are scheduled for next week.

5. **Reactor Building Entries.** Five reactor building entries were completed during the week of May 1, 1983. The work effort during the entries was focused on localized decontamination and dose reduction tasks. A procedure to calibrate the source range neutron monitors using a Am Be neutron source was rescheduled for the week of May 8, 1983. Five reactor building entries are scheduled for the week of May 8, 1983. The major work effort will again be focused on localized decontamination and dose reduction tasks.
Two personnel from the NRC TMI:PO conducted an inspection inside the reactor building on Thursday, May 5, 1983. The inspection scope included:

(1) effectiveness of dose reduction measures,
(2) industrial safety/fire protection,
(3) evaluation of potential hazards during polar crane operations,
(4) vulnerability of incore instrumentation pressure boundaries to damage during recovery operations, and
(5) inspection of components and systems needed for reactor disassembly.

Several areas requiring follow-up action were identified and these are being pursued with cognizant licensee personnel. Significant issues identified in the inspection will be addressed in the inspection report issued monthly by the NRC Region I office. The whole body dose accumulated by the NRC personnel during the 2 hour 15 minute inspection was 196 mrem to one individual and 286 mrem to the other.

6. Polar Crane Activities. Except for a task to reset trolley travel limit switches, no work was performed on the polar crane this week. Polar crane load testing and subsequent operations are still delayed pending resolution of NRC procedural comments. There is no schedule, at the present time, to resume activities to requalify the polar crane until comments are resolved. The polar crane requalification is a prerequisite activity for reactor head removal and reactor disassembly. The next phase of the underhead data acquisition, control rod drive mechanism removal and underhead visual inspection, was also dependent on the use of the polar crane. However, because of uncertainties in the crane refurbishment schedule, engineers have commenced work on procedures to remove the control rod drive mechanism without use of the polar crane. Information on this approach will be included when GPU finalizes their plans.
Past Meeting
On May 2, 1983, Lake H. Barrett met with the Concerned Mothers of Middletown to discuss cleanup operations at TMI-2. They expressed their concern that TMI Unit 1 should not be restarted prior to completion of the Unit 2 cleanup.

Future Meeting
On May 16, 1983, Lake H. Barrett will meet with the Concerned Mothers of Middletown to discuss TMI related issues.