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

Enclosed is the status report for the period of October 9 - October 16, 1982. Major items included in this report are:

--- Liquid Effluents
--- EPA and NRC Environmental Data
--- Radioactive Material and Radwaste Shipments
--- Submerged Demineralizer System Status
--- EPICOR II
--- Reactor Building Entries
--- EPICOR II Prefilter Shipment Status
--- TMI Aerial Radiological Survey
--- Public Meetings

Enclosure: As stated

Lake H. Barrett
Deputy Program Director
TMI Program Office
cc w/encl:
EDO
OGC
Office Directors
Commissioner's Technical Assistants
NRR Division Directors
NRR A/D's
Regional Administrators
IE Division Directors
TAS
EIS
THI 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 Modes: Mini-Decay Heat Removal (MDHR) system.
- RCS Pressure Control Mode: RCS is vented to the reactor building.

Major Parameters (as of 0600, October 15, 1982) (approximate values)

- Average Incore Thermocouples*: 110°F
- Maximum Incore Thermocouple*: 127°F

RCS Loop Temperatures:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hot Leg**</td>
<td>93°F</td>
<td>91°F</td>
</tr>
<tr>
<td>Cold Leg (1)</td>
<td>75°F</td>
<td>76°F</td>
</tr>
<tr>
<td></td>
<td>77°F</td>
<td>77°F</td>
</tr>
</tbody>
</table>

Pressure: The reactor coolant system is vented to the reactor building.

Reactor Building: Temperature: 70°F
- Pressure: -0.20 psig

Airborne Radionuclide Concentrations:

- $6.4 \times 10^{-7}$ uCi/cc $\text{H}^3$ (sample taken 10/13/82)
- $2.5 \times 10^{-9}$ uCi/cc particulates (sample taken 10/14/82)
- $\text{Kr}^{85}$ concentrations are below the lower limit of detection (LLD): $6.2 \times 10^{-6}$ uCi/cc

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.

During the period October 7, 1982, through October 14, 1982, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained no detectable radioactivity.

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

**The primary water level is below the hot leg temperature sensors.
2. Environmental Protection Agency (EPA) Environmental Data

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

<table>
<thead>
<tr>
<th>Location</th>
<th>September 10, 1982</th>
<th>September 24, 1982</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goldsboro</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Middletown</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Yorkhaven</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>TMI Observation Center</td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

The EPA Middletown Office has not received the environmental Kr-85 for the samples which were taken subsequent to September 24, 1982, 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 October 6, 1982 through October 14, 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:

<table>
<thead>
<tr>
<th>Sample</th>
<th>Period</th>
<th>I-131</th>
<th>Cs-137</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-340</td>
<td>October 6 - October 13, 1982</td>
<td>&lt;6.8 E-14</td>
<td>&lt;6.8 E-14</td>
</tr>
</tbody>
</table>

4. Licensee Radioactive Material and Radwaste Shipments

On October 8, 1982, 79 drums containing contaminated laundry from Units 1 and 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.

On October 8, 1982, two Unit 2 reactor coolant samples were shipped to the Babcock and Wilcox Lynchburg Research Center, Lynchburg, Virginia.

On October 11, 1982, two Unit 1 solidified evaporator bottoms were shipped to U.S. Ecology (Hanford Burial Site), Richland, Washington.

On October 12, 1982, two Unit 2 25-ml reactor coolant bleed tank "A" liquid samples were shipped to Westinghouse Hanford Company, Richland, Washington.
-- On October 13, 1982, two Unit 1 solidified evaporator bottoms were shipped to U.S. Ecology, Richland, Washington.

-- On October 14, 1982, one Unit 1 solidified evaporator bottom, and nine Unit 1 and three Unit 2 LSA waste containers were shipped to U.S. Ecology, Richland, Washington.

-- On October 15, 1982, 77 drums containing contaminated laundry from Units 1 and 2 were shipped to Interstate Uniform Services, New Kensington, Pennsylvania.

**Major Activities**

1. **Submerged Demineralizer System (SDS).** SDS completed processing Batch No. 37 (approximately 5,000 gallons of miscellaneous letdown water) on October 7, 1982 and is presently in standby status.

2. **EPICOR II.** The EPICOR II system is presently in standby status.

3. **Reactor Building Entries.** Four reactor building entries were conducted during the week of October 10, 1982. (Reactor building entries are typically scheduled on Monday, Wednesday, and Friday with makeup entries on Thursday.)

   The ongoing flushing of reactor building interior surfaces has added approximately 60,000 gallons of processed water to the reactor building sump. Thirty thousand gallons of this water have been subsequently transferred to the SDS feed tanks for reprocessing. Flushing of the reactor building dome has been completed. The current decontamination effort is focused on remote spraying below the 305 ft. elevation and a manual decontamination of the polar crane.

   In conjunction with these decontamination activities, the closed circuit television inspection of the 282 ft. elevation has continued. A prominent "dirt ring" approximately one foot wide was visible on vertical surfaces. The elevation of the "dirt ring" appears to correspond to the elevation of the reactor building high water level (291 ft.). An examination of the 282 ft. floor surfaces was masked by approximately four inches of water which accumulated in the reactor building basement from decontamination activities. The water appeared relatively clear, but its depth distorted the view of the floor surface. An inspection of the reactor coolant drain tank cubicile, which included an inspection of the rupture disk discharge pipe, did not identify any component damage.

   In addition to decontamination, the following reactor building activities are scheduled for the remainder of October:

   -- A second attempt to uncouple the three leadscrews still coupled to their control rod spider assemblies,

   -- Temporary power installation to the polar crane, and

   -- Preparation of work packages for testing the polar crane motors.
4. **EPICOR II Prefilter Shipment Status.** The EPICOR II PF-2 liner, which was shipped from TMI on October 7, 1982, arrived safely at the Idaho National Engineering Laboratory (INEL) on October 12. No prefilter shipments were made this week because of delays in cask availability. Two EPICOR II shipments are scheduled next week: PF-7 on October 20 and PF-8 on October 21, 1982. This schedule is predicated on having a HN-200 cask available from Hittman Nuclear and a CNS-8-120 cask returned from INEL.

5. **TMI Aerial Radiological Survey.** The aerial radiological survey of the Three Mile Island area has been tentatively scheduled to begin on October 20, 1982. Attachment 1 is the October 14, 1982 NRC press release that describes the survey.
Future Meeting

1. On October 29, 1982, Lake H. Barrett will meet with Friends and Family of TMI to discuss various TMI-2 issues.

2. On November 9, 1982, the NRC Commissioners will hold a public meeting to discuss the potential restart of TMI Unit No. 1. Further details regarding location and local contact for public statements will be included in a press release when they become available.

3. On November 17, 1982, the Advisory Panel for the decontamination of TMI Unit 2 will hold a meeting --open for public observation-- to discuss the current status of cleanup efforts and the disposition of processed water. The meeting will take place at the Holiday Inn, 23 South Second Street, Harrisburg, Pennsylvania, from 7:00 to 10:00 PM.