April 4, 1983
NRC/THI-83-022

MEMORANDUM FOR: Harold R. 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 THI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of March 27, 1983, through
April 2, 1983. 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 Status
-- Reactor Building Entries
-- SDS Liner Shipments
-- Leadscrew Shipment
-- EPICOR II Prefilter Shipment
-- Purification Demineralizer Disposal Status
-- Public Meetings


Lake H. Barrett
Deputy Program Director
THI Program Office

Enclosure: As stated
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
TMI Program Office Staff (15)
PHS
EPA
DOE
RI Division Directors
Public Affairs, RI
State Liaison, RI

April 4, 1983
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, April 1, 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>86°F</td>
</tr>
<tr>
<td>Cold Leg (1)</td>
<td>74°F</td>
<td>75°F</td>
</tr>
<tr>
<td>(2)</td>
<td>78°F</td>
<td>75°F</td>
</tr>
</tbody>
</table>

RCS Pressure: 63 psig

Reactor Building: Temperature: 65°F
Pressure: -0.15 psig

Airborne Radionuclide Concentrations:

- 4.3 E-7 uCi/cc H\(^3\)
  (sample taken 3/29/83)
- 6.3 E-9 uCi/cc particulates
  (sample taken 3/29/83)

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 March 25, 1983, through March 31, 1983, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained detectable amounts of radioactivity. Calculations indicate that less than 17 millionths (0.000017) of a curie of tritium 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 March 4, 1983. These results, which are being provided by the EPA's Counting Laboratory at Las Vegas, Nevada, 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 monitoring networks during the period from March 23, 1983, through March 31, 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-363</td>
<td>March 23 - March 30, 1983</td>
<td>&lt;7.2 E-14</td>
<td>&lt;7.2 E-14</td>
</tr>
</tbody>
</table>

4. Licensee Radioactive Material and Radwaste Shipments

-- On March 30, 1983, one box containing a 2-inch pipe and lock plate taken from the Unit 1 pilot operated relief valve (PORV) area was mailed to Battelle, Columbus, Ohio.

-- On March 30, 1983, 110 drums containing contaminated clothing from Units 1 and 2 were shipped to Interstate Uniform, New Kensington, Pennsylvania.

Major Activities

1. Submerged Demineralizer System (SDS). SDS processed approximately 21,800 gallons of reactor building sump water, beginning on March 21 and ending on March 24, 1983; the performance parameters are included in Attachment 1.

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

3. Reactor Building Entries. Three reactor building entries were completed during the week of March 27, 1983. Decontamination of the reactor building air coolers and shielding of high radiation sources on the 305 ft. elevation of the reactor building were the most man-hour intensive tasks during the entries. Preliminary radiation measurements following the decontamination (high pressure water wash) of the reactor building air coolers indicated that there was no apparent decrease in dose rates around the coolers following the decontamination. Water shields placed on the open stairwell and on the equipment hatch did have
an effect on dose rates in those areas. Preliminary measurements indicate that dose rates above the open stairwell and over the equipment hatch decreased by over 50 percent.

The reactor building air coolers were secured during the previous weekend to support an experiment designed to evaluate whether the forced air circulation was contributing to the recontamination of surfaces inside the reactor building. Preliminary results from this experiment indicate that there is not a significant increase in airborne particulate activity due to forced air circulations.

Only two reactor building entries have been scheduled for next week. Cleanup activities in the reactor building have slowed due to delays in generating the prerequisite engineering evaluations and operating procedures for cleanup tasks. Reassessment operations to evaluate recent allegations regarding unsafe practices in the Unit 2 cleanup have diverted engineering resources from scheduled cleanup activities. The extent of the delay has not been determined. Activities which have been effected by the delay include the reactor vessel underhead characterization, the polar crane load test, and the reactor vessel head removal.

4. SDS Liner Shipments. The seventh SDS waste liner, D20028, in a group of twelve, is tentatively scheduled to be shipped on April 15, 1983.

5. EPICOR II Prefilter (PF) Shipments. No shipments were scheduled this week, while awaiting the return of the Type "B" shipping cask to the TMI site. One prefILTER shipment (PF-38) is scheduled next week.

6. Purification Demineralizer Disposal Status. The fabrication and testing of a special mechanical sampler and guide sleeve, for inserting a fiber-optics probe into the "A" purification demineralizer vessel, has been completed. The visual inspection and further sampling of the "A" vessel for ion exchange material is scheduled for April 12, 1983.

The shipment of the "B" purification demineralizer sample to Oak Ridge National Laboratory is scheduled for April 5, 1983.
Future Meeting

On April 5, 1983, Lake H. Barrett will meet with the Concerned Mothers of Middletown to discuss TMI related issues.
## ATTACHMENT I

### SDS PERFORMANCE PARAMETERS
March 21, 1983, to March 24, 1983

<table>
<thead>
<tr>
<th>Radionuclide</th>
<th>Average Influent (uc/ml)</th>
<th>Average Effluent (uc/ml)</th>
<th>Average DF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cesium 137</td>
<td>6.5</td>
<td>$3.2 \times 10^{-5}$</td>
<td>$2.0 \times 10^{5}$</td>
</tr>
<tr>
<td>Strontium 90</td>
<td>2.8</td>
<td>$3.3 \times 10^{-3}$</td>
<td>$8.5 \times 10^{2}$</td>
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</tbody>
</table>