

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

March 28, 1982 - April 3, 1982

Plant Status

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

Available Core Cooling Modes: Decay heat removal systems. Long term cooling "B" (once through steam generator-B).

RCS Pressure Control Mode: Standby pressure control (SPC) system.

Backup Pressure Control Modes: Mini decay heat removal (MDHR) system.
Decay heat removal (DHR) system.

Major Parameters (as of 0500, April 2, 1982) (approximate values)

Average Incore Thermocouples: 103°F

Maximum Incore Thermocouple: 131°F

RCS Loop Temperatures:

| | A | B |
|--------------|------|------|
| Hot Leg | 96°F | 99°F |
| Cold Leg (1) | 90°F | 83°F |
| (2) | 84°F | 82°F |

RCS Pressure: 95 psig

Reactor Building: Temperature: 67°F
Water level: Elevation 283.2 ft. (0.5 ft. from floor)
Pressure: -0.27 psig
Airborne Radionuclide Concentrations:
2.0 E-7 uCi/cc H³
(sample taken 3/31/82)
4.1 E-6 uCi/cc Kr85
(sample taken 3/30/82)

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 dated February 27, 1980.

During the period March 26, 1982, through April 1, 1982, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources, which originated within Unit 2, contained no detectable radioactivity.

2. Environmental Protection Agency (EPA) Environmental Data.

Results from EPA monitoring of the environment around the TMI site were as follows:

- The EPA measured Kr-85 concentrations (pCi/m^3) at several environmental monitoring stations and reported the following results:

| <u>Location</u> | <u>February 26, 1982 - March 12, 1982</u> (pCi/m^3) |
|--------------------|---|
| Goldsboro | 25 |
| Observation Center | 29 |
| Middletown | 29 |
| Yorkhaven | 29 |

All of the above levels of Kr-85 are considered to be background levels.

- 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 March 24, 1982 through April 1, 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:

| <u>Sample</u> | <u>Period</u> | <u>I-131</u> (uCi/cc) | <u>Cs-137</u> (uCi/cc) |
|---------------|--------------------------------|-------------------------------------|--------------------------------------|
| HP-313 | March 24, 1982 - April 1, 1982 | <5.6 E-14 | <5.6 E-14 |

4. Licensee Radioactive Material and Radwaste Shipments

- On Tuesday, March 30, 1982, an internally contaminated piece of equipment from the Unit 1 waste gas system was shipped to the Babcock and Wilcox Research Center, Lynchburg, Virginia.
- On Wednesday, March 31, 1982, 18 samples (smears) from the Unit 1 control drive lead screw were shipped to the Babcock and Wilcox Research Center, Lynchburg, Virginia.

- On Wednesday, March 31, 1982, eight liquid samples from the Unit 2 submerged demineralizer system were shipped to Oak Ridge National Laboratory, Oak Ridge, Tennessee.
- On Thursday, April 1, 1982, 43 drums containing Unit 1 and Unit 2 contaminated laundry were shipped to Tri-State Industrial Laundries, Utica, New York.

Major Activities

1. Submerged Demineralizer System (SDS). The SDS is shutdown for minor maintenance.
2. EPICOR II. The EPICOR II System is shutdown because of lack of water to be processed.
3. Reactor Building Entries. A preliminary review of data gathered during the gross decontamination experiment indicates that based on swipe surveys for both beta and gamma, the decontamination factors (DF = $\frac{\text{pre-decon surveys}}{\text{post-decon surveys}}$) on floor surfaces averaged between 10 and 100. The floor surface DF's based on contact beta measurements averaged between 2 and 10. These figures indicate that the techniques used during the decontamination experiment were effective in removing loose surface contamination. Breathing zone air (BZA) samplers from entry team members indicated that airborne activity decreased by a factor of approximately 5 following the decontamination experiment. Although this calculation is based on a very limited number of BZA samples and therefore may be premature, it does support the conclusion that the gross decontamination experiment was effective in removing loose surface contamination. The area gamma dose rates, however, did not decrease significantly following the decontamination experiment. An average area gamma DF on the reactor building floor surfaces was approximately 1.3. The disparity in the relatively high swipe/contact beta DF's and the relatively low area gamma DF's appears to indicate that the gamma radiation fields in the reactor building are due to sources other than loose surface contamination.

The comparison of pre and post decontamination collimated gamma spectrometer measurements and the analysis of surface bore samples have not been completed. When available, this information should provide indications of whether the gamma dose rates are coming from fixed surface contamination or from other sources.

The next reactor building entry is scheduled for Wednesday, April 7, 1982. During this entry, work will commence on the installation of a pump which will be used to pump the remaining water from the 282 ft. elevation floor to the SDS. It is expected that the pump will be ready for service later this month. There are still approximately 30,000 gallons (six inches) of water on the floor of the 282 ft. elevation. It is believed that the radionuclides in the water and/or on the surfaces of the 282 ft. elevation constitute a major source of radiation in all areas of the reactor building.

4. Reactor Coolant System (RCS) Processing. Engineering efforts are still in progress for processing the RCS. Fabrication and construction efforts are underway for needed hardware modifications. The NRC TMI/PO site office has approved approximately 25 percent of the procedures needed for RCS processing. The remaining procedures are under review. The NRC TMI/PO is awaiting receipt of a request by the licensee to revise the Recovery Operations Plan to incorporate changes to accommodate RCS processing. RCS processing is scheduled to begin in June 1982.

Future Meetings

1. On Wednesday, April 14, 1982, Lake Barrett will be the keynote speaker for the Southern Pennsylvania Association of Occupational Health Nurses, to be held at the Holiday Inn in York.
2. On Thursday, April 22, 1982, the TMI Advisory Panel for the decontamination of TMI Unit 2 will hold a meeting in Harrisburg at the Holiday Inn located at Second and Chestnut Street, to discuss issues related to the status of the cleanup program.