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June 22, 1981
NRC/TMI-81-035

MEMORANDUM FOR: Harold R. Denton, Director,
Office of Nuclear Reactor Regulation

Bernard J. Snyder, Program Director,
TMI Program Office

FROM: Lake H. Barrett, Acting Deputy Program Director,
TMI Program Office

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of June 14 - 20, 1981.

ORIGINAL SIGNED BY:

Lake H. Barrett
Acting Deputy Program Director
TMI Program Office

Enclosure: As stated

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DATE	6/19/81	6/ /81	6/22/81	6/22/81	6/ /81	6/22/81	

NRC FORM 318 (10-80) NRCM 0240

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NRC TMI PROGRAM WEEKLY STATUS REPORT

Week of June 14 - 20, 1981

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 0400, June 19, 1981) (approximate values)
Average Incore Thermocouples: 117°F
Maximum Incore Thermocouple: 144°F

RCS Loop Temperatures:

	A	B
Hot Leg	116°F	120°F
Cold Leg (1)	69°F	72°F
(2)	70°F	71°F

RCS Pressure: 97 psig

Reactor Building: Temperature: 72°F
Water level: Elevation 290.8 ft. (8.3 ft. from floor) via penetration 401 manometer
Pressure: -0.4 psig
Concentration: 4.8×10^{-5} uCi/ml Kr-85 (Sample taken 6/15/81)

Effluent and Environmental (Radiological) Information

1. 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 June 14, 1981, through June 20, 1981, the effluents contained no detectable radioactivity at the discharge point and individual effluent sources which originated within Unit 2 contained no detectable radioactivity.

2. Airborne effluents are reported on a monthly basis.

3. 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:

Location	June 5 - June 12, 1981 (pCi/m^3)
Goldsboro	23
Observation Center	27
Middletown	30
Yorkhaven	*

*Analysis not complete, results will be reported next report period.

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 June 11, 1981, through June 18, 1981.

4. 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:

Sample	Period	I-131 (uCi/cc)	Cs-137 (uCi/cc)
HP-272	June 10, 1981 - June 17, 1981	<8.4 E-14	<8.4 E-14

-- Environmental TLD measurements for the period April 9, 1981 - April 30, 1981, around TMI indicated gamma radiation to be at the natural background levels. Fifty-nine TLD's registered doses ranging from 0.2 mR/day to 0.3 mR/day. Average dose was 0.23 mR/day. These dose rates are consistant with natural background radiation in the TMI area.

5. Licensee Radioactive Material and Radwaste Shipments

-- On Monday, June 15, 1981, a 40 ml Unit 2 reactor coolant sample was sent to Babcock and Wilcox (B&W), Lynchburg, Virginia.

-- On Tuesday, June 16, 1981, one 4' x 4' EPICOR-II dewatered resin liner (liner DF-2) from Unit 2 was shipped to U. S. Ecology, Richland, Washington.

-- On Tuesday, June 16, 1981, one 6'x 6' EPICOR-II dewatered resin liner (liner DS-1) from Unit 2 was shipped to U. S. Ecology, Richland, Washington.

-- On Wednesday, June 17, 1981, two Hittman steel liners containing Unit 1 solidified evaporator bottoms were shipped to U. S. Ecology, Richland, Washington.

-- On Thursday, June 18, 1981, a source range pre-amplifier from Unit 2 was sent to Sandia National Laboratories, Albuquerque, New Mexico.

-- On Thursday, June 18, 1981, one 4' x 4' EPICOR-II dewatered resin liner (liner DF-4) from Unit 2 was shipped to U. S. Ecology, Richland, Washington.

-- On Friday, June 19, 1981, one probe (identification HP-R-213) from Unit 2 was sent to Sandia National Laboratories, Albuquerque, New Mexico.

-- On Friday, June 19, 1981, two Hittman steel liners containing Unit 1 solidified evaporator bottoms were shipped to U. S. Ecology, Richland, Washington.

-- On Friday, June 19, 1981, 10 drums containing Unit 2 uncompacted LSA waste were shipped to U. S. Ecology, Richland, Washington.

Major Activities

1. Submerged Demineralizer System (SDS). Functional tests are complete with the exception of a few items which are undergoing engineering evaluation and further testing. Operator training on components not involved with the outstanding functional testing is in progress. The operator training does not involve processing of contaminated water. The licensee is preparing procedures for NRC approval. The procedures are based on functional testing procedures and operator comments as a result of the operator training.

   On Thursday, June 18, 1981, the NRC staff approved Met-Ed's plans to use the SDS for decontaminating the highly radioactive water in the reactor building sump and the Reactor Coolant System. The approval action was in the the form of an immediately effecti order. The NRC's Safety Evaluation Report was made available to the general public when the order was issued. (See attachment 1)

The licensee plans to transfer water from the Reactor Coolant Bleed Tanks to the SDS Feed Tanks within the next two weeks. Shortly thereafter, processing of this water will begin. It is expected that water from the reactor building sump will not be transferred to the SDS Feed Tanks until August 1981.

2. Reactor Building Entry and Purge. The twelfth entry into the Unit 2 reactor building (RB) is scheduled for Thursday, June 25, 1981. Ten men are scheduled to enter the containment to perform the following tasks:

-- Polar crane inspection and radiation survey;

-- Closed circuit television system repair;

-- Lighting system repair;

-- Contamination characterization; and,

-- Intercom repair.

Approximately 24 hours prior to the entry, the RB purge will be activated. A RB air sample taken on June 16, 1981, indicates that the Kr-85 concentration in the RB is 0.000048 microcuries per cubic centimeter. This equates to less than three curies of krypton in the RB.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
Office of Public Affairs
Washington, D.C. 20555

No. 81-98 -
Tel. 301/492-7715

FOR IMMEDIATE RELEASE
(Thursday, June 18, 1981)

NRC STAFF APPROVES PLANS TO DECONTAMINATE MORE TMI WATER

The Nuclear Regulatory Commission staff today approved Metropolitan Edison Company's plans for decontaminating the highly radioactive water in the containment building and reactor coolant system of Unit 2 at the Three Mile Island nuclear plant.

The staff's action is consistent with the Commission's April 27 policy statement which stated: "...the licensee should accelerate the pace of cleanup to complete expeditiously all decontamination activities consistent with ensuring protection of public health and safety and the environment."

The staff's action is in the form of an order which is effective immediately. Disposition of the water is not authorized by this action. The processed accident water will continue to be stored onsite until the company has proposed a disposal method and that proposal has been reviewed by the staff and approved by the Commission.

The order was made effective immediately because the staff has concluded that high radiation levels in the reactor building--resulting from the presence of the contaminated water--is hindering the performance of other major decontamination activities in the reactor building.

In addition, as long as the highly radioactive water remains in the reactor building, the possibility exists for the building to begin leaking, releasing the water to the environment.

Metropolitan Edison will use the Submerged Demineralizer System (SDS) together with the previously-used EPICOR-II system (somewhat modified) to decontaminate the water in the reactor building and the reactor coolant system. The EPICOR-II was used last year to decontaminate the less-radioactive water contained in storage tanks in the auxiliary building.

The solid radioactive wastes resulting from decontamination of the water are to be stored temporarily at the Three Mile Island site. However, the Department of Energy, in a June 3 letter to the NRC staff, expressed its willingness to use the solid high specific activity wastes--in the form of zeolite liners--for research, development and testing purposes. The DOE program is a long-term effort and will not result in returning any of these high specific activity wastes to the TMI site. The Department's letter stated that funds for this effort had been requested in the budget for the fiscal year which begins October 1.

The staff has reviewed the company's proposal and has concluded that the environmental impacts associated with operation of and, later, decommissioning of the SDS system fall within the scope of the impacts previously assessed in the "Final Programmatic Environmental Impact Statement Related to Decontamination and Disposal of Radioactive Wastes..."

Also, the staff's review has concluded that radiation exposures to people living off the TMI site will be well within the limits established in that document and approved by the Commission. It is estimated that maximum radiation dose to an individual living in the vicinity of Three Mile Island from decontamination of the reactor building and reactor coolant system water would be about .02 millirem to the whole body and .07 millirem to the bone.

Copies of the staff's safety evaluation of the submerged demineralizer system (NUREG-0796) and the Final Programmatic Environmental Impact Statement (NUREG-0683) are available for inspection in the Commission's Public Document Room at 1717 H Street, Washington; in the Local Public Document Room at the State Library of Pennsylvania, Government Publications Section, Education Building, Commonwealth and Walnut Streets, Harrisburg; and in NRC's Middletown, Pennsylvania, office at 100 Brown Street.

The staff's order also provides that Metropolitan Edison or any person whose interest may be affected by the order may request a public hearing on it. Requests for a hearing will not stay the effectiveness of the order.

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