UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D C 20555

January 19, 1981
NRC/TMI-81-004

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

Bernard J. Snyder, Director,
TMI Program Office

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

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the status report for the period of January 11 - 17, 1981.

Lake H. Barrett
Acting Deputy Program Director
TMI Program Office

Enclosure: As stated

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T. Elsasser

NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of January 11-17, 1981

Plant Status

Core Cooling Mode: Cyclic natural circulation in the reactor coolant system (RCS) loops with heat transfer to reactor building ambient.

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

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

Backup Pressure Control Mode: One decay heat removal pump to supply pressure in conjunction with variable recirculation back to the borated water storage tank (BWST).

Major Parameters (as of 0500, January 16, 1981) (approximate values)
Average Incore Thermocouples: 122°F
Maximum Incore Thermocouple: 154°F

RCS Loop Tempratures:

		A	B
Hot Leg		119°F	122°F
Cold Leg	(1)	83°F	66°F
	(2)	85°F	68°F

RCS Pressure: 104 psig (DVM)

Pressurizer Temperature: 69°F

Reactor Building: Temperature: 62°F
Water level: Elevation 290.5 ft. (8.0 ft. from floor) via penetration 401 manometer .
Pressure: -0.3 psig (Heise)
Concentration: 1.5×10^{-4} uCi/cc (Kr-85) (sample taken 1/14/81)

Effluent and Environmental (Radiological) Information

1. Liquid effluents from 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 semi-annual reporting period, July 1, 1980, - December 31, 1980, the licensee reported that minute amounts of contamination with an origin from Unit 2 was discharged from the TMI site. The NRC TMI Program Office staff verified that no accident related water, as defined in the City of Lancaster Agreement dated February 27, 1980, was discharged from Unit 2. Although the

concentrations of radioactive effluent were not detectable at the discharge point, calculations indicated that less than one ten thousandth (0.0001) of a curie of Cesium-137 (Cs-137) was discharged. This represents less than 0.001% of the permissable total liquid effluent activity as specified in Technical Specifications for other operational commercial power reactors.

2. EPA Environmental Data. Results from EPA monitoring of the environment around the TMI site were as follows:

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

Location	January 5 - January 9, 1981 (pCi/m^3)
Bainbridge	25
Goldsboro	23
Observation Center	22
Middletown	24

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

-- No radiation above normally occurring background levels were detected in any of the samples collected from the EPA's air and gamma rate networks during the period from January 7, 1981, through January 15, 1981.

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:

Sample	Period	I-131 (uCi/cc)	Cs-137 (uCi/cc)
HP-250	January 8, 1981-January 15, 1981	<9.4 E-14	<9.4 E-14

4. Licensee Radioactive Material and Radwaste Shipments. The following shipment was made:

-- On Monday, January 12, 1981, a 40 ml Unit 2 reactor coolant sample was sent to Babcock and Wilcox (B&W), Lynchburg, Virginia.

-- On Tuesday, January 13, 1981, a drum containing a section of HPR-211 cable from Unit 2 was shipped to EG&G Idaho, Inc., Idaho Falls, Idaho.

-- On Tuesday, January 13, 1981, a drum containing two vibration amps and a section of HPR-211 cable from Unit 2 was shipped to Sandia National Laboratory, Albuquerque, New Mexico.

-- On Wednesday, January 14, 1981, a Unit 1 1,000 ml waste evaporator condensate storage tank (WECST) monthly composite and a 1,000 ml decay heat "A" sample were sent to Teledyne Isotopes, Westwood, New Jersey.

-- On Thursday, January 15, 1981, Unit 2 compacted and non-compacted low specific activity (LSA) waste was shipped to Nuclear Engineering Company, Richland, Washington.

Major Activities

1. Reactor Decay Heat Removal. Reactor decay heat continues to be removed by heat transfer from the RCS to reactor building ambient. The secondary plant is being put in a long term layup condition. Since steaming was secured on the "A" OTSG one period of RCS flow occurred on January 14, 1981. No further reporting in this area will be made unless a change in cooling mode occurs.

2. Reactor Building Purge/Entry. The sixth reactor building entry is scheduled for February 3 and 5, 1981. The major activities to be performed include installation of a closed circuit television system, work on the source range monitor, and a decontamination test. The day between the entries will be used to perform circuit checks and prepare personal equipment needed by members of the entry team.

3. Contaminated Building Expansion Joint. The licensee is finalizing a status report on efforts to determine the extent of contamination of building expansion joints previously reported on December 27, 1980. This report is due to the onsite NRC staff early next wee .

4. Ground Water Monitoring Status. The licensee continued their well monitoring program and investigation into the possible source of the trace cesium contamination in well No. 2 located near the BWST (see attached figure). Samples taken from well No. 2 on January 7, 1981, were independently analyzed by the EPA, PA DER and NRC, confirming trace levels of Cs-137 in the 20 to 50 pCi/l range. The PA DER also reported less than detectable levels of strontium-90. These levels are less than EPA drinking water standard concentrations. The licensee also reported that additional well No. 2 samples taken during December and early January indicated an average Cs-137 concentration of approximately 30 pCi/l.

   Licensee and NRC investigations are continuing. On January 15, 1981, the licensee inspected the 15 well locations including the area near well No. 2 and the BWST, accompanied by the NRC. Preliminary conclusions proposed by the licensee indicate that the source of the trace cesium contamination could have resulted from previous leakage of contaminated water from the BWST into the soil. This

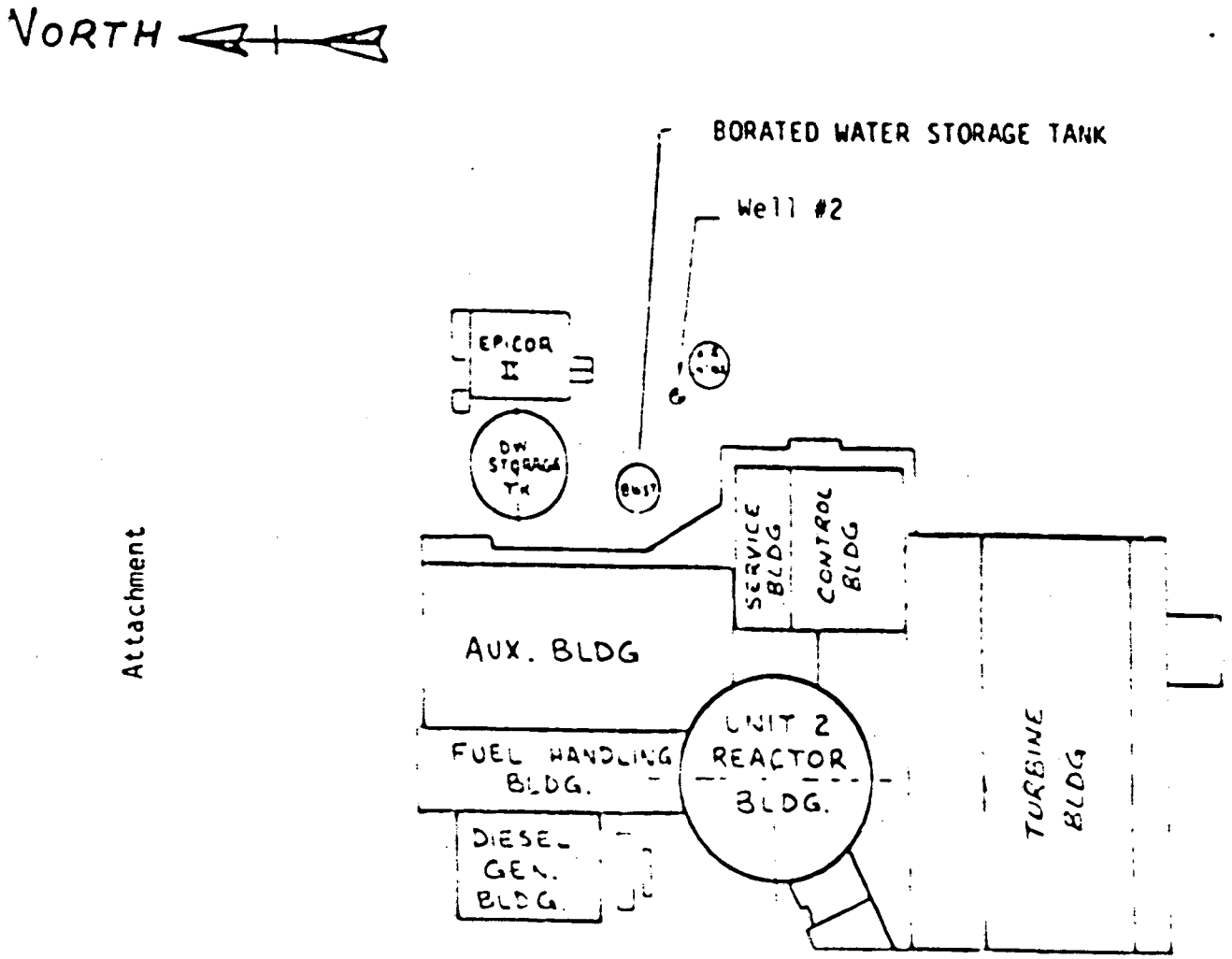
conclusion is supported by the analysis of free-standing water the licensee collected from an excavation ditch near the BWST on January 12, 1981. Although not part of the well monitoring program, analyses indicated Cs-134 and Cs-137 concentrations of 220+85 pCi/l and 870+120 pCi/l, respectively. It is also important to note that the level at which this free-standing water was collected is above the level of water in the containment sump. The licensee is continuing the well monitoring program including expedited sample analyses for well No. 2.

Future Meetings

1. On Thursday, January 22, 1981, L. Barrett and R. Conte will attend a public briefing in Harrisburg at the Forum, beginning at 7:30 p.m., sponsored by the Department of Environmental Resources concerning the status of decontamination at Three Mile Island. Following the presentation, the NRC, EPA and Metropolitan Edison Company will be available to answer questions.

2. The NRC's Advisory Panel for the Decontamination of Three Mile Island, Unit 2, will hold meetings in Harrisburg, on February 4, 11 and 19, 1981. The public is invited to observe all three of these meetings, which will be held at the Forum of the Education Building on Commonwealth and Walnut Streets. Each of these meetings are scheduled to begin at 7:00 p.m. and end at 10:30 p.m..

LOCATION OF TMI MONITORING WELL #2



Attachment