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NUCLEAR REGULATORY COMMISSION
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June 30, 1980
NRC/TMI-80-103

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

B. J. Snyder, Program Director, TMI Program Office

FROM: J. T. Collins, Deputy Program Director,
TMI Program Office

SUBJECT: [illegible]C TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Enclosed is the st[illegible]port for the week of June 21-28, 1980.

John T. Collins

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Deputy Program Director
TMI Program Office

Enclosure: As stated

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NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT

Week of: June 21-28, 1980

Plant Status

Core Cooling Mode: Cyclic natural circulation in the "A" reactor coolant system (RCS) loop via the "A" once through steam generator (OTSG), steaming to the main condenser, and RCS loop-A and B cyclic natural circulation to reactor building ambient.

Available Core Cooling Modes: OTSG "B" to the main condenser; long term cooling "B" (OTSG-B); decay heat removal.

RCS Pressure Control Mode: Standby Pressure Control (SPC) System.

Backup Pressure Control Mode: Makeup system in conjunction with letdown flow (Emergency use only due to suspected leaks in the seal injection system).

Major Parameters (As of 0530, June 27, 1980) (approximate values)
Average Incore Thermocouples: 153°F
Maximum Incore Thermocouple: 197°F

RCS Loop Temperatures:

	A	B
Hot Leg	148°F	151°F
Cold Leg (1)	89°F	82°F
(2)	84°F	83°F

RCS Pressure: 82 psig (Heise)
93 psig (DVM controlling)

Pressurizer Temperature: 90°F

Reactor Building: Temperature: 86°F
Pressure: -0.4 psig (Heise)
Water level: Elevation 290.3 ft. (7.8 ft. from floor) via penetration 401 manometer

Environmental & Effluent Information

1. Liquid effluents from TMI-1 released to the Susquehanna River, after processing, were within the limits specified in Technical Specifications.

2. No liquid effluents were discharged from TMI-2.

3. Results from EPA monitoring of the environment around the TMI site were:

-- EPA environmental stations registered background levels for air particulate and water samples. Gamma scan results for all sampling locations were negative

-- Gas/Air (Kr-85) sample results during the period June 13 through June 20, 1980 were: Goldsboro - 25 pCi/m^3, TMI Observation Center - 37 pCi/m^3, Middletown - 27 pCi/m^3 and Bainbridge - 25 pCi/m^3.

-- Instantaneous direct radiation readings showed an average level of 0.013 mRem/hr at the 18 monitoring stations. The measurements are all attributed to naturally occurring radioactivity.

4. NRC Environmental Data

-- 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-221	June 18 - June 25, 1980	<5.2E-14	<5.2E-14

No reactor related radioactivity was detected.

-- The licensee provided the following monthly inventory of Kr-85 releases for 1980: January-80 Ci, February-80 Ci, March-63 Ci, April-69 Ci, May-85 Ci, and June (to midnight of June 25) 58 Ci. Total 435 Ci.

-- Results of the environmental TLD measurements for the period April 30 to May 29, 1980, indicate no gamma levels above natural background. Fifty-eight TLD's registered doses ranging from 0.11 mR/day to 0.20 mR/day. Average dose was 0.16 mR/day. These dose rates are consistent with natural background radiation in the TMI area.

-- On Thursday, June 26, 1980 at 10:00 a.m. a meeting was held with the licensee, Messrs. William Riethle (GPU) and Keith Woodard (Pickard, Lowe, and Garrick), and Messrs. M. Shanbaky, R. Conte, T. Moslak, G. Kalman and T. Poindexter (NRC). The purpose of the meeting was to review the licensee's methods and equipment to be used to calculate dose assessment during the reactor building purge. The following information was presented:

1. Procedure for beta-skin dose calculations in each sector.

2. Normal TLD locations and frequency of readout.

3. Purge monitoring TLD station locations and frequency of read out.

4. Locations of continuous evacuated and cryogenic air samplers for Kr-85.

5. Locations of Reuter Stokes monitors.

6. A review of the normal environmental monitoring program at TMI.

5. Radioactive Material and Radwaste Shipments Offsite were as follows:

-- On Monday, June 23, 1980, 250 ml reactor coolant bleed tank, Unit 2, was shipped to Oak Ridge National Laboratory, Oak Ridge, Tennessee for analysis.

-- On Monday, June 23, 1980, a 30 ml reactor coolant, Unit 2, sample was shipped to Babcock and Wilcox, Lynchburg, Virginia for analysis.

-- On Monday, June 23, 1980, a Unit 2 shipment of one hundred and six (106) drums of laundry was sent to Tri-State Industrial Laundries, Utica, New York.

-- On Thursday, June 26, 1980, an Epicor I dewatered resin liner, LSA Type A, was shipped to Nuclear Engineering Company, NECO, Richland, Washington.

-- On Friday, June 27, 1980, an Epicor I waste resin liner, LSA type B, was shipped to NECO, Richland, Washington.

6. EPICOR II Processing Status (Auxiliary building approximate quantities)

Amount processed this week:	16,000 gallons
Amount processed to date:	347,000 gallons
Amount to be processed:	126,000 gallons

Major Activities This Week

1. Reactor Building Purge. Final preparations for the removal of Kr-85 from the TMI-2 reactor building by controlled purging to the atmosphere were completed this week. This included the functional test of the modified "B" train of the normal reactor building ventilation exhaust system (fast purge system) and a dry run using the purge procedure which uses both the modified hydrogen control exhaust system (for slow rate purge) and the fast purge system.

Amendment No. 11 dated June 24, 1980, was issued resolving the technical specification, addressed last week, on defeating the interlock between the exhaust monitor and the associated "B" train dampers. By procedure, the subject monitor will be backed up by periodic grab samples.

At approximately 8:00 a.m. on June 28, 1980, purging of the TMI-2 reactor building atmosphere commenced with an initial flow rate of approximately 100 cfm (.05 Ci/sec) in the Modified Hydrogen Control System (MHC). Approximately 4 minutes into the purging, the system was shutdown due to particulate radiation monitor high alarms on the MHC system (HP-R-229) and the plant ventilation stack (HP-R-219). Subsequent licensee analysis of the monitor sample system filters revealed no particulate activity. It was then concluded that the particulate detectors were responding to the noble gas (Kr-85) concentration in the system. EPA and NRC independent analysis reaffirmed this conclusion.

Between 5:00 p.m. and 10:00 p.m. on June 28, 1980, the licensee resumed the purge under test conditions to further evaluate system and associated monitor response with a very slow approach in achieving various MHC system flow rates. Prior to this test, the 219 monitor was modified to eliminate the interference due to noble gas. During the test, additional filter samples were taken with subsequent analyses conducted to reaffirm that no particulate activity concentrations were present.

Resumption of the reactor building atmosphere purge started at 2:00 p.m. on June 29, 1980, with system and associated monitor response as expected. Meanwhile in an attempt to increase the sensitivity of the stack monitor (219) for particulates, additional instrumentation was installed and was made operational for preliminary date evaluation.

Since 2:00 p.m., June 29, 1980, the system was operated as meteorological conditions permitted. There was one system shutdown between approximately 2:00 a.m. to 4:00 a.m. on June 30, 1980 for reasons other than meteorological. The MHC exhaust fan motor tripped on overload. No overheating occurred but it appeared that the trip was due to operator error.

2. Reactor Building Entry. Drilling equipment has been set up at the inner door of personnel airlock No. 2. Plans are to drill up to 3 holes into the inner Unit 2 Personnel Airlock door. The procedure for this work was approved by the NRC/TMI Program Office this week.

The procedure entails the drilling of one hole to allow an attempt to free the jammed ΔP safety interlock solenoid pin. If this fails, the procedure allows for two additional holes to be drilled to facilitate the freeing of the interlock mechanism. Drilling is scheduled to start Monday, June 30, 1980.

3. Epicor II Status. The unscheduled outage for this Epicor II system was completed Tuesday, June 24, 1980. The Epicor II is being used to process water that wa stored in the fuel pool waste storage system (lower tanks). The fuel pool waste storage system was built as a recovery system for additional storage capacity of auxiliary building waste and was filled as soon as it became operational in the summer of last year.

4. Ground Water Monitoring. The latest tritium analyses on the TMI ground water samples taken on May 2, 1980 show the following results:

Well No.	Concentration
MW - 1	130 ± 70 uCi/cc
MW - 2	490 ± 80 uCi/cc
MW - 3	1090 ± 90 uCi/cc
MW - 4	360 ± 70 uCi/cc
MW - 5	350 ± 70 uCi/cc
MW - 6	910 ± 80 uCi/cc
MW - 7	310 ± 80 uCi/cc
MW - 8	710 ± 100 uCi/cc

The analysis results have been fluctuating without any discernable trend. The samples are presently collected and analyzed on a weekly basis. "Brown water" sample taken from monitoring well No. 3 has been analyzed by Princeton Laboratory and the following conclusions have been reached:

1. None of EPA's priority pollutants were found in the water.
2. Heavy metal concentrations are well below toxic levels.
3. Organic constituents are natural degradation products of leaves, wood fibers, humus, etc.
4. Inorganic constituents are naturally occurring elements normally associated with dust and soil particles.

It is apparent that there are no toxic or potentially toxic components in this discolored water.

Meetings attended with Public Officials and Interested Groups

1. On Friday, June 27, 1980, J. Collins participated in a site tour of the proposed purging operation with representatives of the Department of Environmental Resources of Pennsylvania and selected members of the news media.

Meetings to be held with Public Officials and Interested Groups

1. On Tuesday, July 1, 1980, J. Collins, A. Fasano and D. Haverkamp will attend a meeting to be held at the NRC Region I office in King of Prussia, Pennsylvania, at 1:30 p.m. to discuss planned near-term licensee management review appraisals, which will augment the routine NRC inspection program at Three Mile Island Nuclear Station, Unit 1.