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February 25, 1985
NRC/TMI-85-014

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

Bernard J. Snyder, Program Director
TMI Program Office

FROM: William D. Travers, Deputy Program Director
TMI Program Office

SUBJECT: NRC TMI PROGRAM OFFICE WEEKLY STATUS REPORT FOR
February 16, 1985 - FEBRUARY 23, 1985

REACTOR BUILDING ACTIVITIES:

On Wednesday, February 20, 1985, GPU Nuclear was able to guide a small television camera and light to the lower reactor vessel head and examine a small region below the core support structure. The television pictures revealed rubble which had the appearance of a gravel pile with some of the pieces being "fist" size and several inches across. The size of the gravel pieces were compared to the diameter of the light fixture and appear to be nominally three to four inches long and about half as wide. Further examinations on Thursday, February 21, 1985, revealed similar type material located at the periphery of one of the six inch diameter flow holes in the lower diffuser plate of the core support assembly. These examinations support the concept that some molten material was generated in the core area and resolidified and collected in the lower plenum area. The composition of the rubble pile can not be determined from video inspection of this material. Specifically, the possibility that once-molten fuel forms a part of this rubble cannot be confirmed nor discounted via this technique. The licensee has, however, begun preliminary planning to remove a sample for laboratory analysis of material content. The rubble appears to be about 30 inches deep (15-20 tons) in the lower reactor vessel head area. These early examinations also indicate that, in the limited areas examined, the core thermal shields, lower flow distributor, instrumented incore guide tubes, and reactor vessel walls were not visibly degraded.

In a separate effort, EG&G Idaho, Inc., under contract to DOE, has an ongoing program to examine a limited number of debris particles previously removed from the reactor in 1984. Recent results from these examinations indicate that temperatures of at least 5100°F were reached in some areas of the core during the 1979 accident. Uranium dioxide melts at 5100° F.

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SURNAME ➤							
DATE ➤							

AUXILIARY AND FUEL HANDLING BUILDING ACTIVITIES:

Refurbishment of the "A" spent fuel pool has continued with the installation of the fuel canister transfer mechanism. Decontamination efforts this period have included scabbling in the Decay Heat Vaults and the Auxiliary Building elevator pit. Operation of the cesium elution system has continued.

ORIGINAL SIGNED BY:
William D. Travers

William D. Travers
Deputy Program Director
TMI Program Office

Attachments:
1. Liquid Effluent and Environmental Data
2. Plant Status

OFFICE	TMIPO	TMIPO	TMIPO	TMIPO			
SURNAME	DCollins:ms	CCowgill	PGrant	WTravers			
DATE	2/25/85	2/25/85	2/25/85	2/ /85			

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ATTACHMENT 1

LIQUID EFFLUENT AND ENVIRONMENTAL DATA

Environmental Protection Agency

Based on EPA's sampling results, liquid effluents being released from the TMI site are within regulatory limits and in accordance with NRC requirements and the City of Lancaster Agreement.

Lancaster Water Sample: Composite sample taken over seven days

Period Covered: February 3, 1985 - February 9, 1985

Results: Gamma Scan Negative for reactor related radioactivity

TMI Water Samples: Seven daily composited samples

Period Covered: February 2, 1985 - February 9, 1985

Results: Gamma Scan Negative for reactor related radioactivity

NRC Environmental Data

The NRC operated continuous outdoor air sampler at the TMI site did not detect any reactor related radioactivity.

Sample	Period
HP-458	February 13, - February 20, 1985

Volume	Results	
331.7 m^3	LLD = 1.1 E-13 uCi/cc	I-131
	LLD = 1.1 E-13 uCi/cc	Cs-137

ATTACHMENT 2

PLANT STATUS

Reactor Vessel Configuration: Reactor vessel open with modified internals indexing fixture installed

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

Available Core Cooling/Makeup Sources:
Standby pressure control (SPC) system
Reactor coolant bleed tank (RCBT) water transfer system
Mini decay heat removal (MDHR) system
Decay heat removal (DH) system

Reactor Coolant System:

Average Cold Leg Temperature: 59°F

Core:

Average Incore Thermocouples:* 81°F
Maximum Incore Thermocouple:* 91°F

Reactor Building:

Temperature: 56°F
Pressure: -0.05 psig

Airborne Radionuclide Concentrations:

Tritium: 6.7 E-8 uCi/cc
Particulates: 2.7 E-10 uCi/cc predominately Cs-137

*Uncertainties exist as to the exact location and accuracy of these readings.