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FILE: Enviro

FROM: Metropolitan Edison Co. Reading, Pa R.C. Arnold		DATE OF DOC 11-20-75	DATE REC'D 11-24-75	LTR xxxx	TWX	RPT	OTHER
TO: Mr. J.P. O'Reilly		ORIG none	CC 1	OTHER	SENT NRC PDR <u>xxxx</u> SENT LOCAL PDR <u>xxx</u>		
CLASS	UNCLASS xxxx	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-289		

DESCRIPTION:  
  
Ltr reporting Environmental Abnormal occurrence #75-9 on 11-13-75 concerning the temperature differential between river water inlet and discharge temperature change at a rate in excess of 2 F/hr .....

ENCLOSURES:

ACKNOWLEDGED

DO NOT REPLY

PLANT NAME: Three Mile Island #1

**FOR ACTION/INFORMATION**

11-26-75 JGB

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# METROPOLITAN EDISON COMPANY

A DIVISION OF GENERAL PUBLIC UTILITIES CORPORATION

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

TELEPHONE 215 - 929-3601

November 20, 1975

GQL 1740

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Regulatory

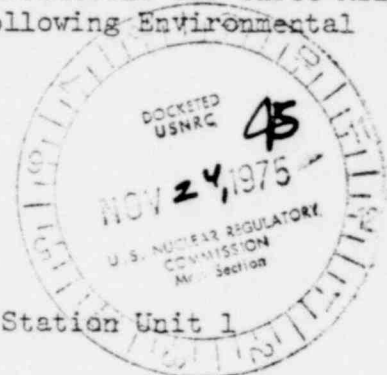
Mr. J. P. O'Reilly, Director  
Office of Inspection and Enforcement, Region I  
Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Dear Mr. O'Reilly:

Operating License DPR-50  
Docket No. 50-289

In accordance with the Environmental Technical Specifications for Three Mile Island Nuclear Station Unit 1, we are reporting the following Environmental Incident:

- (1) Reporting Number: E.I. 50-289/75-09
- (2a) Report Date: November 20, 1975
- (2b) Occurrence Date: November 13, 1975
- (3) Facility: Three Mile Island Nuclear Generating Station Unit 1
- (4) Identification of Incident:



The temperature differential between river water inlet and discharge temperature changed at a rate in excess of 2°F/hr. which constitutes a violation of the Environmental Technical Specification 2.1.b.(2).

- (5) Conditions Prior to Occurrence:

A routine shutdown operation was in progress with major plant parameters as follows:

Power: Core: 0%

Elec.: 0%

RC Flow: 1500 gpm (Decay Heat Removal System Flow)

RC Pressure: 313 psig

RC Temp.: 237°F

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PRZR Level: 110 in.

PRZR Temp.: 420 °F

6. Description of Incident:

On November 18, 1975, during the cooldown of the reactor coolant system, the decay heat removal system was placed into operation in accordance with the operating procedure. The additional heat load imposed on the river water system caused the effluent temperature to rise from 52°F at 0650 to a maximum of 57°F at approximately 0720. The operator observed the temperature increase at approximately 0710 and immediately started an extra mechanical draft cooling tower fan in slow speed mode to limit the temperature rise. The effluent temperature finally leveled off to 55°F at 0750. The effluent temperature change over the one (1) hour period (0650 to 0750) was 3°F/hr. which exceeded the Environmental Technical Specification limit of 2°F/hr.

7. Designation of Apparent Cause of Incident:

The cause of this occurrence has been determined to be personnel/procedure in that the operator did not closely monitor the temperature change when placing the plant in the decay heat mode of operation. Additionally, adequate guidance may not be properly integrated into the shutdown procedure, decay heat removal procedure, decay heat river water procedure and the mechanical draft cooling tower operating procedure in order to adequately point out the actions which must be taken by the operator to avoid exceeding the Environmental Technical Specifications limits on thermal discharges.

8. Analysis of the Incident:

It is believed that the change in effluent temperature of 3°F in one (1) hour did not cause any environmental damage in that the condition did not substantially exceed the Environmental Technical Specifications limit of 2°F per hour, and was not so severe as to greatly alter the ambient temperature of the river. The temperature difference between the inlet and outlet river water streams was well within the 20°F limit allowed by the Environmental Technical Specifications for a reactor cooldown condition (2.1.b.(2)).

Title 25, Pennsylvania Code, Section 97.82(a) states that the heat content of a discharge shall not change the temperature of the entire stream by more than 2°F during any one-hour period. In addition, Environmental Technical Specifications paragraph 2.1(3), Objective of the Thermal Limiting Condition of Operation states that, "the maximum change in mixed river temperature shall not exceed 2°F/hr.". It is our belief that the 3°F/hr. temperature difference experienced at TMI discharge did not compromise the thermal water quality criteria of either the NRC or the Commonwealth of Pennsylvania even though Environmental Technical Specification 2.1.b.(2) was violated.

9. Corrective Action:

In addition to the immediate action described above, the affected operating procedures will be reviewed and revised if necessary to assure the proper emphasis and guidance is given to the operator to closely observe the

effluent temperatures when placing the plant in the decay heat mode of operation.

10. Failure Data:

Not Applicable.

Similar Occurrences: E.I. 74-1, E.I. 74-8, E.I. 75-7, E.I. 75-8.

Sincerely,

Signed - R. C. Arnold

R. C. Arnold  
Vice President

RCA:JMC:tas

cc: Director of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington. D.C. 20555

File: 20.1.1 / 7.7.3.11.1

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