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(TEMPORARY FORM)

CONTROL NO: 554

FILE: INCIDENT FILE

FROM: Met. Edison Co. Reading, Pa. 19603 R.C. Arnold			DATE OF DOC 1-16-76	DATE REC'D 1-20-76	LTR XX	TWX	RPT	OTHER
TO: NRC			ORIG 1 signed	CC	OTHER	SENT NRC PDR XX		
						SENT LOCAL PDR XX		
CLASS	UNCLASS	PROP INFO	INPUT	NO CYS REC'D 1		DOCKET NO: 50-289		
	XXX							

DESCRIPTION: Ltr adv of unusual event 76-2-10 ENCLOSURES:  
on 1-6-76 re failure of the nuclear services  
raiver water pump "A" discharge valve to open  
when the pump was started...

Do Not Remove

ACKNOWLEDGED

PLANT NAME: Three Mile Island Unit 1

FOR ACTION/INFORMATION

DHL 1-23-76

BRANCH CHIEF Reid

LIC. ASST. R. Ingram W/16 cys ACRS

## INTERNAL DISTRIBUTION

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NOTE: IF PERSONEL EXPOSURE IS INVOLVED  
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## EXTERNAL DISTRIBUTION

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Regulatory Docket File

# METROPOLITAN EDISON COMPANY

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

TELEPHONE 215 - 929-3601

January 16, 1976  
GQL 0054

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

Dear Sir:

Docket No. 50-209  
Operating License No. DPR-50

In accordance with the Technical Specifications of our Three Mile Island Nuclear Station Unit 1 (TMI-1), we are submitting the following event report.

- (1) Report Number: ER 76-2/10
- (2a) Report Date: January 16, 1976
- (2b) Event Date: January 6, 1976
- (3) Facility: Three Mile Island Nuclear Station Unit 1
- (4) Identification of Event:

Title: Failure of the Nuclear Services River Water Pump "A"  
Discharge Valve to Open When the Pump was Started.

Type: An abnormal occurrence as defined by the Technical Specifications, paragraph 1.8d, in that the inoperable Nuclear Services River Water System valve threatened to cause an Engineering Safeguards feature or system to be incapable of performing its intended functions.

- (5) Conditions Prior to Event:

Power: Core: 100%  
Elec.: 846 MWe (Gross)

RC Flow:  $138 \times 10^6$  lbs./hr.

RC Pressure: 2166 psig

RC Temp.: 580°F

PRZR Level: 235 inches

PRZR Temp.: 650°F



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(6) Description of Event:

At 1600 hours on January 6, 1976, while starting the Nuclear Services River Pump "A" (NR-P1A) to take vibration readings, the pump discharge valve (NR-V1A) failed to open when the pump was started. At that moment, the NR-P1A was the designated Engineered Safeguards (ES) Nuclear Services Cooling River Pump. Attempts to open the valve using the remote control pushbutton in the control room also failed. NR-V1A was then opened manually. It was observed that a greater than normal force was required to open the valve manually. The valve cycled freely both manually and electrically after it was manually opened.

Immediately, the Nuclear Services River Pump "B" (NR-P1B) was selected as the ES pump in place of NR-P1A. NR-P1B and its respective discharge valve, NR-V1B, were verified operable. The Nuclear Services River Pump "C" (NR-P1C) and its respective discharge valve, NR-V1C, were also tested and verified operable.

(7) Designation of Apparent Cause of Event:

The cause of this event has been determined to be material in that the Nuclear Services River Pump "A" discharge valve failed to open due to valve binding. Disassembly of the valve operator revealed a cracked spline adaptor that is keyed to the valve stem. The key and keyway were also damaged. This valve operator damage may have contributed to the valve binding.

(8) Analysis of Event:

It has been determined that this event did not constitute a threat to the health and safety of the public in that:

- a. One Nuclear Service River Water Pump is sufficient to supply emergency cooling water in the event of a loss of coolant accident.
- b. NR-P1B was available for operation.
- c. The redundant ES selected pump, NR-P1C, and its respective valve, NR-V1C, were operable.

(9) Corrective Action:

In addition to the immediate action described above, the NR-V1A operator spline adaptor and key will be replaced and the valve cycled to assure that they are operating properly. NR-V1A will be cycled once per week for four (4) weeks to assure that the binding does not recur.

The Plant Operations Review Committee and Station Superintendent have reviewed and approved the above corrective action and have taken steps to assure its completion.

(10) Failure Data:

Limitorque Valve Operator

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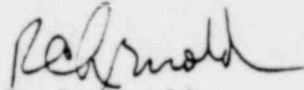
SMB-000 motor operator  
Type H gear drive  
Size LBC  
Material of Splined Sleeve and Key - Steel

Valve  
16" Butterfly Valve  
Henry Pratt Company  
Max Pressure - 100 psi  
Body - Cast Iron  
Disc - NI-Resist Type 1  
Shaft - 304 Stainless Steel

Similar Occurrences:

None

Sincerely,



R. C. Arnold  
Vice President

RCA:JMC:ilm

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