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CONTROL NO 12521

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FROM: Metropolitan Edison Co. Reading, Pa R.C. Arnold		DATE OF DOC 12-10-74	DATE REC'D 12-12-74	LTR. XXX	TWX	RPT	OTHER
TO: Directorate of Licensing		ORIG 1-signed	CC	OTHER	SENT AEC PDR <u>XXXXXX</u> SENT LOCAL PDR <u>XXXXXX</u>		
CLASS	UNCLASS XXXXXX	PROP INFO	INPUT	NO CYS REC'D 1	DOCKET NO: 50-289		

DESCRIPTION:

Ltr reporting Abnormal Occurrence #74-26 on 11-29-74 concerning defective overcurrent trip device on the Feeder Breaker to the 1B Engineered Safeguards Motor Control Center.....

ENCLOSURES:

ACKNOWLEDGED  
DO NOT REMOVE

PLANT NAME:

Three Mile Island Unit 1

FOR ACTION/INFORMATION

12-16-74 JGB

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EXTERNAL DISTRIBUTION

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910260 565 S



METROPOLITAN EDISON COMPANY

POST OFFICE BOX 542 READING, PENNSYLVANIA 19603

TELEPHONE 215 - 929-3601

DEC 10 1974

GQL 0548

Director  
Directorate of Licensing  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

Dear Sir:

Docket No. 50-289  
Operating License DPR-50

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

1. Report Number: AO 50-289/74-26
- 2a. Report Date: DEC 10 1974
- 2b. Occurrence Date: November 29, 1974
3. Facility: Three Mile Island Nuclear Station, Unit 1
4. Identification of Occurrence

Title: Defective Overcurrent Trip Device on the Feeder Breaker  
to the LB Engineered Safeguards Motor Control Center.

Type: An abnormal occurrence as defined by the Technical Specifications, paragraph 1.8d, in that the defective overcurrent trip device on the feeder breaker to the LB Engineered Safeguards Motor Control Center threatened to cause an Engineered Safeguards feature or system to be incapable of performing its intended function.

5. Conditions Prior to Occurrence: The reactor was in a cold shutdown condition with major plant parameters as follows:

Power: Core: 0%  
Elec: 0 MW

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RC Flow:  $8 \times 10^6$  lbs/hr

RC Pressure: 0 psig

RC Temp:  $91^{\circ}\text{F}$

PRZR Level: 272 in

PRZR Temp:  $140^{\circ}\text{F}$

6. Description of Occurrence:

The feeder breaker to the 1B Engineered Safeguards Motor Control Center had been suspected to not be functioning properly and was, therefore, tested on August 18, 1974. The breaker appeared to be functioning properly during this test, and it was not until the performance of specially recommended vendor tests on October 24, 1974, that a problem could be identified within the breaker. Upon discovery of the problem, the breaker was then repaired and returned to service.

The above-listed events were reviewed on November 29, 1974, by the Station Staff, and it was at this time that the decision was made to consider this problem reportable as an abnormal occurrence.

7. Designation of Apparent Cause of Occurrence:

Component failure was the apparent cause of the occurrence in that the plunger on the overcurrent trip-delay device suffered from mechanical binding and would not always return to its fully retracted position following a relatively large starting motor current surge; thus, it would not have as far to travel to trip the breaker.

8. Analysis of Occurrence:

For the following reasons it is believed that neither the health nor safety of the public was threatened by the defective overcurrent device:

- a. The breaker to the 1B Engineered Safeguards Motor Control Center probably would not have tripped in the event of an ESAS actuation in that current surges of greater than 1000 amps would have been required to cause premature tripping of the breaker; but because the largest load is started at slow speed during an ESAS actuation, the resulting current surge is significantly less than 1000 amps, and
- b. Even if the subject breaker had tripped prematurely, the "A" Engineered Safeguards Actuation System (ESAS) is completely redundant to the "B" ESAS.

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9. Corrective Action:

As an immediate corrective action the defective overcurrent device was replaced with a spare and the breaker tested. Having verified that the spare device was functioning properly, the breaker was then returned to service.

At a meeting held soon after this occurrence was reported, the Plant Operations Review Committee and the Station Superintendent reviewed and approved these actions.

10. Failure Data:

Previous Failures:

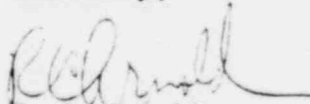
None.

Equipment Identification:

Westinghouse #DB 50 Circuit Breaker  
Rating: 1600 amps  
600 volts AC

Westinghouse Series Overcurrent Trip Device  
Rating: 1000 amps

Sincerely,

  
R. C. Arnold  
Vice President

RCA:JFV:sh

cc: Mr. J. P. O'Reilly (DORO-Region 1)

File 20.1.1  
7.7.3.5.1

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