

LICENSEE EVENT REPORT (LER)

Facility Name (1) Dresden Nuclear Power Station, Unit 2 Docket Number (2) 0 | 5 | 0 | 0 | 0 | 2 | 3 | 7 Page (3) 1 | of | 0 | 5

TITLE (4) Fuse in Analog Trip System Panel 2202-73A Opened Due to Failed Standby Gas Treatment Master Trip Unit

Event Date (5)			LER Number (6)				Report Date (7)			Other Facilities Involved (8)				
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names	Docket Number(s)				
0	7	08	8	8	0	1	3	0	8	0	5	8	0	5
									N/A	0 5 0 0 0				
									N/A	0 5 0 0 0				

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)																					
POWER LEVEL (10)	0	7	2	N	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 20.405(c)	<input type="checkbox"/> 50.36(c)(1)	<input checked="" type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 73.71(b)	<input type="checkbox"/> 73.71(c)	<input type="checkbox"/> Other (Specify in Abstract below and in Text)

LICENSEE CONTACT FOR THIS LER (12)

Name: Scott Briley, Technical Staff Engineer Ext. 526 TELEPHONE NUMBER: AREA CODE 8 | 1 | 5 9 | 4 | 2 | - | 2 | 9 | 2 | 0

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	B	H	R	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) Month | Day | Year

Yes (If yes, complete EXPECTED SUBMISSION DATE) NO

ABSTRACT (Limit to 1400 spaces, i.e, approximately fifteen single-space typewritten lines) (16)

On July 8, 1988 at 0022 hours during normal operation at 72% rated core thermal power, the Unit 2 Nuclear Station Operator (NSO) received an annunciator indicating "Analog Trip System Trouble Division I Panel 2202-73A". At the same time, another annunciator indicating "250V DC, 125V DC, 48/24V DC Under Voltage" was received. Additionally, computer alarm point C274, "Low Reasonable Limit on Reactor Pressure Wide Range A" also annunciated. Upon investigation, Instrument Maintenance Department (IMD) personnel determined that there was a loss of power to part of Analog Trip System (ATS) Panel 2202-73A. Further investigation revealed that a fuse in the ATS panel had opened. A new fuse was inserted and subsequently opened. The loss of power to the 2202-73A panel caused the High Pressure Coolant Injection (HPCI) system and the A Standby Gas Treatment (SBGT) train to be declared inoperable. An extensive inspection of the ATS panel by IMD personnel revealed that Master Trip Unit (MTU) 2/3-7541-46A for A SBGT low flow had failed. The failed SBGT card was removed, a new fuse was inserted, and power was restored to the 2202-73A panel. A new MTU for A SBGT was installed and verified to be operable.

The cause of the failed A SBGT MTU card is unknown. A review of past LERs has revealed no previous occurrences of this type.

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TEXT

LPCI System Valve Operability, was successfully performed. Furthermore, DOS 7500-2, Moisture Removal From the SBT Charcoal Adsorbers, was also performed to ensure operability of the B SBT train. A new MTU 2/3-7541-46A for A SBT low flow was installed at 1115 hours. The A SBT train was removed from the Degraded Equipment Log (DEL) at 1300 hours.

During a review of this event, the NRC Senior Resident Inspector expressed concern that the operability surveillance for the B SBT train was not performed within the two hour surveillance requirement of Technical Specification 3.7.B.1.a. The Operating Engineer explained that although the event occurred at 0022 hours, at that time only the fact that power was lost to part of the ATS panel was known. At this point of the event the SCRE initiated simultaneous investigations. The IMD began an investigation into the cause of the event and possible corrective actions to restore power to the ATS panel. The SCRE initiated an investigation of the Station electrical schematics to identify systems affected by this loss of power to the ATS panel. It wasn't until later during the investigation process that it was determined that the HPCI system in addition to the A SBT train were inoperable. Upon this determination, the SCRE immediately took action to ensure that Dresden Station was operating in compliance with all Technical Specification requirements. At approximately 0250 hours, the operability surveillance for the B SBT train was initiated.

C. APPARENT CAUSE OF EVENT:

The cause of the loss of power to ATS panel 2202-73A was due to fuse F-5 opening. Fuse F-5, a 10 amp fuse, opened because the SBT MTU 2/3-7541-46A card was drawing high current. The cause of the fault in the SBT MTU card is unknown.

D. SAFETY ANALYSIS OF EVENT:

Technical Specification 3.5.2 allows continued reactor operation for seven days with HPCI inoperable. The HPCI system was actually inoperable for less than five hours. Had an event occurred requiring the HPCI system, the Automatic Depressurization [SB], Isolation Condenser [BL], LPCI and Core Spray [BM] systems were operable and capable of providing reactor pressure and level control during any postulated design basis accident. Although the A LPCI minimum flow valve would not have automatically closed upon increasing LPCI flow during LPCI initiation, the Reactor Operator could have closed it via the control switch if necessary.

Technical Specification 3.7.B.1.a allows continued reactor operation for seven days with one SBT train inoperable. The A SBT train was inoperable for less than 13 hours. The B SBT train was available at all times in the event that high radiation levels were detected in the Reactor Building. Due to the statements above, the safety significance of this event is considered minimal.

E. CORRECTIVE ACTIONS:

The immediate corrective action was to remove the SBT MTU 2/3-7541-46A card and replace fuse F-5 on panel 2202-73A to restore power to the other MTUs. The affected systems were then tested to ensure operability. A new MTU 2/3-7541-46A card was then inserted and additionally checked for operability. The Technical Staff will also develop a reference guide to be included in the control room operator aid binder. This reference guide will cross-reference ATS panel 2202(3)-73A and 2202(3)-73B fuses and associated equipment in order to more easily determine components affected by opened fuses (237-200-88-01301).

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TEXT

F. PREVIOUS EVENTS:

A review of past Licensee Event Reports has revealed no previous occurrences of this type. However, the last previous occurrence of a SBGT system being declared inoperable was reported by Deviation Report 12-2/3-87-158, Unit 2/3 Standby Gas Treatment System Fan Discharge Damper Failure to Open During Testing Due to Breaker Trip.

G. COMPONENT FAILURE DATA:

Manufacturer: Rosemount

Nomenclature: Master Trip Unit

Model Number: 710DV0TT

MFG Part Number: 710DV0TT-44026

An NPRDS data base search revealed no failures of this particular model number.



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August 5, 1988

EDE LTR #88-575

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Licensee Event Report #88-013-0, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(v)(D).

E.D. Eenigenburg
Station Manager
Dresden Nuclear Power Station

EDE/ade

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III
File/NRC
File/Numerical

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