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April 6, 1992
ND3MNO:3277

Beaver Valley Power Station, Unit No. 2
Docket No. 50-412, License No. NPF-73
LER 92-002-00

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

In accordance with Appendix A, Beaver Valley Technical Specifications, the following Licensee Event Report is submitted:

LER 92-002-00, 10 CFR 50.73.a.2.i.iv, "Control Rod Drive Mechanism Ventilation Fan Trip Due to Internal Motor Fault".

Very truly yours,

T. P. Noonan
General Manager
Nuclear Operations

JGT/sl

Attachment

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NRC FORM 366 (6-89)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Beaver Valley Power Station Unit 2	0 5 0 0 0 4 1 2	1 OF 0 3

TITLE (4)

Control Rod Drive Mechanism Ventilation Fan Trip Due to Internal Motor Fault

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)
									N/A	0 5 0 0 0
0 3	0 5	9 2	9 2	0 0 2	0 0	0 4	0 6	9 2		0 5 0 0 0

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
1		20.402(b)	20.405(c)	X 50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10)		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
0 7 8		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
T.P. Noonan, General Manager Nuclear Operations	4 1 2 6 4 3 - 1 2 5 8

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	C D	B K R	R 1 6 5	N							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On March 5, 1992 Unit Two was operating at 78 percent power during the planned coastdown for the upcoming refueling outage. At 1522 hours, an alarm was received indicating 480 volt emergency bus 2P trouble. The alarm was due to a ground on the bus. The B2 Control Rod Drive Mechanism Ventilation Fan tripped (one of six), and the ground cleared. The fan was placed in the lockout condition and the standby fan was placed in service. Electrical maintenance personnel investigated the problem and discovered that the ground was in the fan motor. The motor is being shipped to a vendor to be rewound and balanced. This motor is a non-Class 1E load which is supplied from the Class 1E power system. The receipt of a Safety Injection signal causes the motor power supply breaker to be automatically tripped to assure that the Class 1E system is not degraded during accident conditions. This is in compliance with the provisions of Regulatory Guide 1.75. The tripping of the breaker is an inadvertant actuation of an ESF component and is being reported in accordance with 10CFR50.73.a.2.iv.

DESCRIPTION OF EVENT

On March 5, 1992 Unit Two was operating at 78 percent power during the planned coastdown for the upcoming refueling outage. At 1522 hours, an alarm was received indicating 480 volt emergency bus 2P trouble. The alarm was due to a ground on the bus. Control Rod Drive Mechanism (CRDM) Ventilation Fan 2HVR*FN202B2 tripped, clearing the ground. The fan was placed in the lockout condition and the standby fan (2HVR*FN202B1) was placed in service. Electrical maintenance personnel investigated the problem and discovered that the ground was in the fan motor. The motor is being shipped to a vendor to be rewound and balanced. The motor tripped due to breaker overcurrent protection.

CAUSE OF THE EVENT

An internal CRDM fan motor fault caused an overcurrent condition that tripped the power supply breaker. The motor will be rewound and balanced by a vendor and returned to BVPS.

CORRECTIVE ACTIONS

1. The fan control switch was placed in the lockout position and the standby fan was started to supply ventilation flow to the system.

2. The fan was placed on clearance to allow electrical maintenance to investigate the ground. The investigation determined that there was an electrical fault in the fan motor.

3. The fan motor will be shipped to a vendor for rewinding and balancing.

REPORTABILITY:

There are certain non-Class 1E loads which are powered from the Class 1E power system in order to provide them with a very reliable source of power for all plant conditions. The CRDM fans are such a load. To assure that the Class 1E system is not degraded by non-Class 1E loads under accident conditions, the power supply breakers for the CRDM fans are tripped from the emergency bus upon receipt of a Safety Injection signal. A management review of this event determined that although the cause of the trip was not an ESF signal, and the CRDM fan is not an ESF component; the breaker opening is an automatic and unanticipated actuation of an ESF component. Therefore, this event was reported under 10CFR50.72.b.2.ii and this written report is being submitted in accordance with 10CFR50.73.a.2.iv. (Reference: Beaver Valley Unit 2 UFSAR section 8.3.1.1.3).

SAFETY IMPLICATIONS

There were no adverse safety implications due to the fan motor trip. The standby fan was started to replace the CRDM ventilation that was temporarily lost. The breaker trip effectively removed the faulted component from the Class 1E bus, which is the designed accident configuration for the breaker. The Updated Final Safety Analysis Report (UFSAR section 9.4.7.4.3) discusses the unlikely event of a complete loss of CRDM cooling and concludes that continuous overheating of the CRDM coils will result in shorting of the coil windings and tripping of the control rods. Since the long term loss of cooling ultimately results in the reactor being shut down, the health and safety of the public was not threatened.

SIMILAR EVENTS

There have been no similar previous events reported.