

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Beaver Valley Power Station, Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 4 1 2										PAGE (3) 1 OF 3																					
TITLE (4) Improper Clearance Results in ESF Actuation																																									
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 1			2 9			8 8			8 8			0 0			3 0			0 0			0 2			2 9			8 8			N/A						0 5 0 0 0 0					
OPERATING MODE (9) 5						THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)																																			
POWER LEVEL (10) 0 0 0						20.402(b)						20.405(c)						<input checked="" type="checkbox"/> 50.73(a)(2)(iv)						73.71(b)																	
						20.405(a)(1)(ii)						50.36(a)(1)						50.73(a)(2)(v)						73.71(c)																	
						20.405(a)(1)(iii)						50.36(a)(2)						50.73(a)(2)(vi)						OTHER (Specify in Abstract below and in Text, NRC Form 366A)																	
						20.505(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 Mr. Wm. S. Lacey																TELEPHONE NUMBER 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 NRC		CAUSE		SYSTEM		COMPONENT		MANUFACTURER		REPORTABLE TO NRC																							
A		E A		X X X X		X X X X		N																																	
SUPPLEMENTAL REPORT EXPECTED (14)																EXPECTED SUBMISSION DATE (15)		MONTH		DAY		YEAR																			
YES (If yes, complete EXPECTED SUBMISSION DATE)																<input checked="" type="checkbox"/> NO																									

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

On 1/29/88, an Equipment Clearance Permit was generated in order to perform corrective maintenance on the 1H9 4160VAC Breaker (4160VAC Supply Breaker from the 2H Bus to the 480VAC 2K Bus). A Switching Order was prepared detailing the electrical switching required to maintain the 2K Bus energized after Breaker 1H9 was opened. This was to be accomplished by closing the 480VAC tie-breaker between the 2J and 2K Busses and then opening the 2K 480VAC Supply Breaker. Due to an error in the Switching Order, the 2J 480VAC Supply Breaker was opened instead of the 2K 480VAC Supply Breaker. When Breaker 1H9 was opened, both the 2J and 2K Busses were de-energized. This caused a loss of power to the Leak Collection Vent Radiation Monitor causing a ventilation realignment to the Main Filter Bank (ESF Actuation). The cause for this event was personnel error during the approval of the switching order. To prevent future occurrences of this type, the individuals involved were counseled regarding the proper selection of clearance points. Additionally, the feasibility of changing the realignment feature on a radiation monitor loss of power is being investigated. There were no safety implications to the public due to this event because there was no actual radiation release to initiate a ventilation realignment. The loss of monitor power feature conservatively realigns the ventilation flowpath.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8-31-88

FACILITY NAME (1): Beaver Valley Power Station, Unit No. 2	DOCKET NUMBER (2):  0 5 0 0 0 4 1 2 8 8	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 8	0 0 3	0 0	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 365A's) (17)

On 1/29/88, an Equipment Clearance Permit (No. 534718) was generated by the Construction Department in order to perform corrective maintenance on the 1H9 4160VAC Breaker (4160VAC Supply Breaker from the 2H Bus to the 480VAC 2K Bus). A Switching Order detailing the electrical and mechanical steps to be taken in order to clear Breaker 1H9 was then prepared. Since the equipment listed on the switching order involved equipment which is shared by both Units, the Nuclear Shift Operations Foremen (NSOF) for both Units were required to review and approve the switching order. The switching order was prepared by a Unit 1 startup operator and reviewed and approved by the Unit 1 NSOF. The switching order was then submitted to the Unit 2 NSOF for review and approval. The Unit 2 NSOF instructed the a Unit 2 startup operator to locally obtain the placard information from the 2J and 2K 480VAC tie-breaker. The Unit 2 startup operator was directed to communicate the placard information to the Unit 1 startup operator to assure correctness in the switching order preparation. The switching order was modified to include additional steps, as a result of this review, and was approved by the Unit 2 NSOF. The 2J and 2K 480VAC tie-breaker was closed and the 2J 480VAC Supply Breaker was opened in accordance with the switching order by the Unit 2 startup operator. The Unit 1 startup operator then proceeded with the switching, opening the 1H9 Breaker (4160VAC Supply Breaker from the 2H Bus to the 480VAC 2K Bus, located in the Emergency Response Facility Substation). This de-energized both the 2J and the 2K 480VAC Busses, at 0539 hours. The loss of power to the busses was detected by the Unit 1 NSOF, who directed the Unit 1 startup operator to reclose the 1H9 Breaker, restoring power to the 2J and 2K 480VAC Busses. It was discovered at that time, that an error on the switching order was made, which allowed the de-energization of both 480VAC Busses. The ventilation system was realigned to normal system arrangement at 0610 hours.

The loss of the 2J 480VAC Bus resulted in a loss of Motor Control Center MCC-2-23, resulting in a loss of power to 120VAC Panel PNL1-AC2-20, which was supplying power to the Leak Collection Vent Radiation Monitor [2RMR-RQI301]. Upon the loss of monitor power, a ventilation realignment from the Ventilation Vent to the Main Filter Banks occurred. This realignment is considered an Engineered Safety Features (ESF) Actuation and was reported to the Nuclear Regulatory Commission in accordance with 10 CFR 50.72.b.2.ii at 0639 hours. This written report is being submitted in accordance with 10 CFR 50.73.a.2.iv.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/99

FACILITY NAME (1) Beaver Valley Power Station, Unit No. 2	DOCKET NUMBER (2)  0 5 0 0 0 4 1 2	LER NUMBER (6)			PAGE (3)		
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		8 8	— 0 0 3	— 0 0	0 3	OF 0	3

TEXT (If more space is required, use additional NRC Form 368A's) (17)

The corrective actions taken as a result of this event include counseling of both Unit 1 and Unit 2 individuals involved with the preparation, review and approval of the switching order. This counseling involved the responsibility of assuring the proper selection of clearance points and the importance of the confirmation of those selected points. It was re-emphasized that the selection of clearance points must be carefully and thoroughly researched before any switching occurs. Additional corrective actions being taken include: (1) the submittal of an Engineering Memorandum (EM 63241) to investigate the feasibility of changing the power supply of 2RMR-RQI301 to an uninterruptible power supply or to defeat the loss of power trip feature which causes the automatic swap of the ventilation flowpath, (2) the incorporation of one-line diagrams of both the Unit 2 4160VAC System and the Emergency Response Facility Substation (EFRS) into the administratively controlled Operator Aids Index and (3) the responsibility of the EFRS Substation operation to the Unit 2 Operations Group.

There were no safety implications to the public as a result of this event. There was no actual radiation release to initiate a ventilation flowpath realignment. The loss of monitor power feature conservatively initiates a ventilation realignment.

There was one similar event previously reported involving a ventilation realignment to the Main Filter Bank due to an improper clearance (LER 87-013-00,01).



**Duquesne Light**

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February 29, 1988  
ND3SPM:0174

Beaver Valley Power Station, Unit No. 2  
Docket No. 50-412, License No. NPF-73  
LER 88-003-00

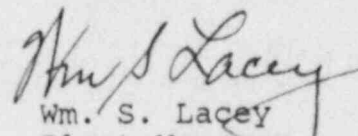
United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

Gentlemen:

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

LER 88-003-00, 10 CFR 50.73.a.2.iv, "Improper Clearance Results in ESF Actuation".

Very truly yours,

  
Wm. S. Lacey  
Plant Manager

tlu

Attachment

IE22  
1/1



February 29, 1988

ND3SPM:0174

Page two

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