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July 10, 1997 NPD1VPO:0714

Beaver Valley Power Station, Unit No. 1 Docket No. 50-334 License No. DPR-66 LER 97-013-00

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

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

LER 97-013-00, 10 CFR 50.73(a)(2)(i), "Failure to Perform DC Bus Train Weekly Breaker Alignment as Required by Technical Specifications."

R. L. LeGrand

JEH/ds

Attachment

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Ronald L. LeGrand



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CC: Mr. H. J. Miller, Regional Administrator
United States Nuclear Regulatory Commission
Region 1
475 Allendale Road
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NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION APPROVED BY OMB NO. 3150-0104 (4.95)EXPIRES 04/30/98 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 50 0 HRS FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION LICENSEE EVENT REPORT (LER) AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF (See reverse for required number of digits/characters for each block) MANAGEMENT AND SUDGET, WASHINGTON, DC 20503 FACILITY NAME (1) DOCKET NUMBER (2) PAGE (3) 05000334 Beaver Valley Power Station Unit 1 1 OF 4 Failure to Perform DC Bus Train Weekly Breaker Alignment as Required by Technical Specifications EVENT DATE (5) LER NUMBER (6) REPORT DATE (7) OTHER FACILITIES INVOLVED (8) SEQUENTIAL REVISION FACILITY NAME DOCKET NUMBER 97 97 013 00 07 10 97 **OPERATING** 20.402(b) 20.405(c) MODE (9) 50.73(a)(2)(iv) is./1(b) POWER 20.405(a)(1)(i) 50.36(c)(1) 50.73(a)(2)(v) 73.71(c) LEVEL (10) 100 20.405(a)(1)(ii) 50.36(c)(2) 50.73(a)(2)(vii) OTHER 20.405(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(viii)(A) (Specify in abstract 20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(viii)(B) below and in Text 20.405(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(x) NRC Form 366A) LICENSEE CONTACT FOR THIS LER (12) NAME TELEPHONE NUMBER (include Area Code) R. L. LeGrand, Vice President Nuclear Operations and Plant Manager (412) 393-7622 COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) CALISE SYSTEM COMPONENT MANUFACTURER REPORTABLE COMPONENT MANUFACTURER REPORTABLE CAUSE SYSTEM TO NPRDS TO NPROS

ABSTRACT (Limited to 1400 spaces, i.e., approximately 15 single-spaced typewriden lines) (16)

(if yes, complete EXPECTED SUBMISSION DATE)

SUPPLEMENTAL REPORT EXPECTED (14)

X

On June 11, 1997 at 1649 hours, as a result of a planned review of Units 1 and 2 Technical Specifications Surveillance Requirements for electrical power systems, it was discovered that the circuit breaker alignments for the DC bus train battery chargers were not being verified. Failure to adequately demonstrate the operability of the DC bus train system is a condition prohibited by Technical Specifications and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i). There were no automatically or manually initiated safety system responses as a result of this event.

EXPECTED SUBMISSION

DATE (15)

The apparent cause of this event was an inadequate procedure. The Unit 1 Technical Specifications matrix shows procedures 10ST.39.16, -.1B, -.1C, -.1D and -.1E as satisfying Surveillance Requirement 4.8.2.3.1, but these did not document this weekly check. Charger breaker alignment was assumed to be verified by charging current measurements.

Upon discovery, breaker alignments were verified on June 11. Other immediate corrective actions taken consisted of surveillance procedure revisions to add breaker alignment for the DC bus train battery chargers, and verification that a similar condition does not exist for Unit 2. Future corrective actions include a technical review of the current process of revising/preparing surveillance procedures and an evaluation of the adequacy of surveillance procedures that implement Technical Specifications.

This event is reportable in accordance with 10 CFR 50.73 (a) (2) (i) (b), condition or operation prohibited by Technical Specifications.

Based upon existing alternate methods in place that would have detected an open circuit breaker on a DC bus battery charger, there is minimal safety consequence to this event. The health and safety of the public were not affected.

NRC FORM 366A (4-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
Beaver Valley Power Station Unit 1	05000334	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		97	013	00	2 OF 4	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

PLANT AND SYSTEM IDENTIFICATION

Westinghouse - Pressurized Water Reactor

DC Power System - Class 1E {EJ/72}*

*Energy Industry Identification System (EIIS) codes and component function identifier codes appear in the text as {SS/CCC}.

IDENTIFICATION OF OCCURRENCE

Discovery Date: June 11, 1997

A review of the surveillance procedure history shows that this breaker verification was never performed.

CONDITIONS PRIOR TO OCCURRENCE

Unit 1: Mode 1, 100% Reactor Power Unit 2: Mode 1, 100% Reactor Power

There were no structures, components, or systems that were inoperable that contributed to the event.

DESCRIPTION OF EVENT

On June 11, 1997 at 1649 hours, as a result of a planned review of Units 1 and 2 Technical Specifications (TS) Surveillance Requirements (SRs) for electrical power systems, it was discovered that the circuit breaker alignments for the DC bus train battery chargers were not being verified. Unit 1 Limiting Condition for Operation (LCO) 3.8.2.3 requires that DC bus trains "A" and "B" be energized and operable in modes 1 through 4. Each bus train consists of its associated busses, battery banks, and battery chargers. To determine that a DC bus train is energized and operable, SR 4.8.2.3.1, associated with LCO 3.8.2.3, states that each DC bus train shall have its correct breaker alignment and indicated power availability verified at least once per 7 days. The Unit 1 Technical Specifications matrix lists surveillance procedures 1OST 39.1A, -.1B, -.1C, -.1D, and -.1E as satisfying SR 4.8.2.3.1, but a review of the surveillance procedure history showed that this breaker verification was never performed. Charger breaker alignment was assumed to be verified by charger current measurements. Upon discovery, breaker alignments were verified on June 11 and Condition Report Number 971017 was initiated to capture this event.

At the time of the event, Unit 1 was operating in Mode 1 at 100 % power.

As an immediate corrective action, surveillance procedures 1OST39.1A, -1B, -1C, -1D, and -1E were revised on June 11, 1997, to include verification of the breaker position for DC bus train battery chargers. Performance of these procedures was completed on June 13, 1997. Corresponding surveillance procedures for Unit 2 were reviewed and found to be correct.

CAUSE OF THE EVENT

The apparent cause of this event was an inadequate procedure. The Unit 1 Technical Specifications matrix shows procedures 1OST39.1.A, -.1B, -.1C, -.1D and -.1E as satisfying Surveillance Requirement 4.8.2.3.1, but these do not document this weekly check. Charger breaker alignment was assumed to be verified by charger current measurements.

LICENSEE EVENT REPORT (LER)

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
Beaver Valley Power Station Unit 1	05000334	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

CORRECTIVE ACTIONS

COMPLETED:

- 1. A review of Units 1 and 2 Technical Specifications Surveillance Requirements and their associated surveillance tests that focused on sections 5 (Emergency Core Cooling Systems) and 8 (Electrical Power Systems) was conducted. Results are documented in Condition Report Number 971063.
- 2. Surveillance procedures 1OST39.1A, -1B, -1C, -1D, and -1E were revised on June 11, 1997, to include verification of the breaker position for DC bus train battery chargers. Performance of these procedures was completed on June 11, 1997.
- 3. Corresponding surveillance procedures for Unit 2 were reviewed and found to be correct.
- 4. Condition Report Number 971017 was initiated to capture this event.

FUTURE:

- 5. An evaluation of the adequacy of surveillance procedures that implement TSs will be conducted to ensure that they implement the required testing. This evaluation and appropriate revisions will be completed for both units by Janua. y 30, 1998.
- 6. The current process of revising/preparing surveillance procedures will be revised to include a technical review led by System and Performance Engineering. This will be completed by July 31, 1997.

REPORTABILITY

Unit 1 TS SR 4.8.2.3.1 requires that each DC bus train shall be determined operable and energized at least once per 7 days by verifying correct breaker alignment and indicated power availability. Contrary to this, breaker alignment of the breakers associated with the vital DC bus train battery chargers was not conducted. This is an operation or condition prohibited by TS and is reportable pursuant to the requirements of 10CFR50.73(a)(2)(i).

SAFETY IMPLICATIONS

Although breaker alignments for the DC bus train battery chargers were not visually verified, their position was directly confirmed on a weekly basis since 1992 by monitoring charging current from the charger to the battery. Several other means provided additional assurance. While in operation, a DC bus train battery charger floats its respective battery at approximately 135 volts. If a battery charger is disconnected, bus voltage will drop and cause a DC bus low voltage alarm to annunciate. Also, surveillance procedures performed weekly determine the operability of vital DC bus train batteries by measuring specific gravities of battery cells. A disconnected battery charger would be noted by a change in specific gravities. Based on the above, the safety consequences of this event were minimal. The health and safety of the public were not affected

SIMILAR EVENTS

In addition to LERs issued as a result of ongoing NRC Generic Letter 96-01 activities, there were four similar events during the last two years:

NRC FORM 366A (4-95)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)	
Beaver Valley Power Station Unit 1	05000334	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

- 1. LER 1-96-006-00, "Inadequate Testing of Safety Injection Relays," dated May 15, 1996.
- 2. LER 1-97-006-00, "Failure to Test Solid State Protection System Logic in Accordance with Technical Specifications," dated April 21, 1997.
- 3. LER 1-97-008-00, "Missed Technical Specification Surveillance-Monthly Position Check of Valves in the Boron Injection Flowpath," dated April 22, 1997.
- 4. LER 1-97-011-00, "Inadequate Testing of Unit 1 Solid State Protection System Relays K630A and K630B," dated June 9, 1997.