

# Duquesne Light Company

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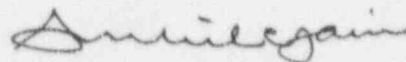
September 16, 1997  
L-97-030

*Beaver Valley Power Station, Unit No. 1*  
*Docket No. 50-334 License No. DPR-66*  
*LER 97-027-00*

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 97-027-00, 10 CFR 50.73(a)(2)(i), "Missed Surveillance of the Refueling Water Storage Tank Boron Concentration."



Sushil C. Jain

BFS/bls

Attachment

IE221

9709230117 970916  
PDR ADOCK 05000334  
S PDR

020088



DELIVERING  
QUALITY  
ENERGY

September 16, 1997

L-97-030

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## LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1)

Beaver Valley Power Station Unit 1

DOCKET NUMBER (2)

05000334

PAGE (3)

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TITLE

Missed Surveillance of the Refueling Water Storage Tank Boron Concentration

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 NAME	DOCKET NUMBER
08	17	97	97	027	00	09	16	97	N/A	
OPERATING MODE (9)		1	20.402(b)			20.405(c)			50.73(a)(2)(vii)	
POWER LEVEL (10)		99%	20.405(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)	
			20.405(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vii)	
			20.405(a)(1)(iii)			X 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

R. D. Hart, Senior Licensing Supervisor

TELEPHONE NUMBER (include Area Code)

(412) 393-5284

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRCDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRCDS

## SUPPLEMENTAL REPORT EXPECTED (14)

X YES

(If yes, complete EXPECTED SUBMISSION DATE)

NO

EXPECTED  
SUBMISSION  
DATE (15)

03

31

98

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

On August 17, 1997, at 1325 hours, with Beaver Valley Power Station (BVPS) Unit 1 in Mode 1 at approximately 99% reactor power level, it was discovered that a Technical Specification required surveillance of the Refueling Water Storage Tank (RWST) boron concentration was missed. Technical Specification 3.1.2.8.b.2 requires that the RWST boron concentration be between 2000 and 2100 ppm, and Surveillance Requirement 4.1.2.8.a.1 requires that the boron concentration be verified at least once per seven (7) days. This condition was discovered by a Chemistry Specialist, during a review of the Chemistry Department's Technical Specification Surveillance Requirement check-off sheet. A sample of the RWST boron concentration was immediately taken on 8/17/97 at 1328 hours, and was within the required limits. The time period from the previous sample exceeded the seven (7) day plus the 25 percent allowance by approximately nine (9) hours.

There were no automatically or manually initiated safety system responses as a result of this event.

This event is reportable pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B) as "Any operation or condition prohibited by the plant's Technical Specifications."

The apparent causes of the event were: 1. inattention to detail and lack of self checking by the daylight Chemistry Specialist who did not sample the RWST as required, 2. the failure of the afternoon Chemistry Specialist to perform a review of the Chemistry Department's Technical Specification surveillance requirements as required by procedure, and 3. the failure to update the Chemistry Department's Technical Specification Reminder Calendar to reflect that the RWST was scheduled to be sampled weekly on Fridays. A contributing cause was confusion related to whether the Technical Specification Reminder Calendar or the Technical Specification Surveillance Requirements check-off sheet was to be utilized for the required daily Technical Specification review.

A sample for RWST boron concentration was taken on 8/17/97 at 1328 hours, the sample was within the Technical Specification 3.1.2.8.b.2 required range of between 2000 and 2100 ppm. Based upon the results of the sample, there were no implications to the health and safety of the public as a result of this event.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Beaver Valley Power Station Unit 1	05000334	97	027	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 (PWR)

Containment Depressurization System {BE}\*

Refueling Water Storage Tank (RWST) {BE/TK}\*

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

DESCRIPTION OF THE EVENT

On August 17, 1997, at 1325 hours, with Beaver Valley Power Station (BVPS) Unit 1 in Mode 1 at approximately 99% reactor power level, it was discovered that a Technical Specification required surveillance of the Refueling Water Storage Tank (RWST) {BE/TK} boron concentration was missed. Technical Specification 3.1.2.8.b.2 requires that the RWST boron concentration be between 2000 and 2100 ppm, and Surveillance Requirement 4.1.2.8.a.1 requires that the boron concentration be verified at least once per seven (7) days. This condition was discovered by a Chemistry Specialist, during a review of the Chemistry Department's Technical Specification Surveillance Requirement check-off sheet. A sample of the RWST boron concentration was immediately taken on 8/17/97 at 1328 hours, and was within the required limits. The time period from the previous sample exceeded the seven (7) day plus the 25 percent allowance by approximately nine (9) hours.

There were no automatically or manually initiated safety system responses as a result of this event.

Condition Report 971409 was initiated to capture this event.

CAUSE OF THE EVENT

The apparent causes of the event were: 1. inattention to detail and lack of self checking by the daylight Chemistry Specialist who did not sample the RWST as required, 2. the failure of the afternoon Chemistry Specialist to perform a review of the Chemistry Department's Technical surveillance requirements as required by procedure, and 3. the failure to update the Chemistry Department's Technical Specification Reminder Calendar to reflect that the RWST was scheduled to be sampled weekly on Fridays. A contributing cause was confusion related to whether the Technical Specification Reminder Calendar or the Technical Specification Surveillance Requirements check-off sheet was to be utilized for the required daily Technical Specification review.

ANALYSIS OF THE EVENT

BVPS Unit 1 Technical Specification Limiting Condition for Operation (LCO) 3.1.2.8 requires that borated water sources which include the RWST be operable in Modes 1, 2, 3 and 4. LCO 3.1.2.8.b.2 requires that the RWST boron concentration be between 2000 and 2100 ppm. Technical Specification Surveillance Requirement 4.1.2.8.a.1 requires that each borated water source shall be demonstrated operable by verifying the boron concentration at least once per seven (7) days. Contrary to this requirement, the BVPS Unit 1 RWST boron concentration was not verified within the seven (7) day frequency plus the 25 percent allowance. This sample was due to be taken on 8/17/97 at 0425 hours (including the 25 percent allowance).

Upon discovery of this condition, a sample of the RWST was immediately taken on 8/17/97 at 1328 hours, which was approximately 9 hours past due. The results of the sample analysis demonstrated that the RWST boron concentration was within the Technical Specification required limits of between 2000 and 2100 ppm.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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

CORRECTIVE ACTIONS

## Completed Corrective Actions:

1. The Chemistry Department's Technical Specification Reminder Calendar was reviewed by 8/18/97 for both Unit 1 and 2 to ensure that the calendar was consistent with the current chemistry sample schedule.
2. The normally scheduled sample of the Unit 1 RWST boron concentration was changed from each Friday to each Monday effective 8/18/97, to facilitate a more timely supervisory review by eliminating the weekend time lapse. The normally scheduled sample of the Unit 2 RWST boron concentration is already performed on Mondays. It was also verified that no other weekly surveillance requirements are scheduled for Fridays.
3. The Chemistry Department personnel involved with the event were counseled concerning the issues contributing to the cause of the missed sample.
4. The Chemistry Department's Technical Specification Surveillance Requirements check-off sheet was added to the BVPS Unit 1 and 2 Chemistry Manual effective 9/8/97. The sheet now includes a daily review and sign-off by the afternoon Chemistry Specialist and the Chemistry Operations Supervisor.
5. The responsibility for completion of the proper Technical Specification required chemistry samples and the completion of the Chemistry Department's Technical Specification Surveillance Requirements check-off sheet was reinforced to the Chemistry Specialists through required reading. This required reading was completed by 9/15/97.

## Follow-up Corrective Actions:

1. The coordination and scheduling process for Technical Specification surveillances will be centralized under the responsibility of the Work Management Manager. Additional resources will be allocated to incorporate the surveillance schedule into the on-line scheduling system. These improvements will be completed by 11/30/97.
2. A Condition Report will be generated which will require the evaluation of the extent of condition for Technical Specification surveillance test results, obtained by departments other than Operations, which may not be reported to the Control Room. This Condition Report will be written by 9/19/97.

REPORTABILITY

This event is reportable pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B) as "Any operation or condition prohibited by the plant's Technical Specification as."

SAFETY IMPLICATIONS

A sample for RWST boron concentration was taken on 8/17/97 at 1328 hours, the sample was within the Technical Specification 3.1.2.8.b.2 required range of between 2000 and 2100 ppm. Based upon the results of the sample, there were no implications to the health and safety of the public as a result of this event.

LICENSEE EVENT REPORT (LER)  
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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

SIMILAR EVENTS

A review of BVPS Licensee Event Reports for the past two years that involved missed Technical Specification surveillances caused by human performance problems identified the following events:

1. LER 2-55-005-00, "Missed Surveillance-Quadrant Power Tilt Ratio Calculation Not Performed," September 1, 1995.
2. LER 1-97-003-00, "Failure to Leak Test Reactor Coolant System Pressure Isolation Valves in Accordance with Technical Specifications," March 24, 1997.
3. LER 1-97-004-00, "Failure to Test Post DBA Hydrogen Control System Recombiners in Accordance with Technical Specifications," March 28, 1997.