



Nuclear Group  
P.O. Box 4  
Shippingport, PA 15017-0004

Telephone (412) 393-6000

March 30, 1992  
ADMNO:3274

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

LER 92-003-00

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 92-003-00, 10 CFR 50.73.a.2.iv, "ESF Actuation - Inadvertent Closure of Containment Isolation Valves TV-SS-117A,B and C".

Very truly yours,

T. P. Noonan  
General Manager  
Nuclear Operations

DSC/sl

Attachment

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cc: Mr. T. T. Martin, Regional Administrator  
United States Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19406

C. A. Roteck, Ohio Edison  
76 S. Main Street  
Akrcn, OH 44308

Mr. A. DeAgazio, BVPS Licensing Project Manager  
United States Nuclear Regulatory Commission  
Washington, DC 20555

...bach, Nuclear Regulatory Commission,  
EVPS Resident Inspector

Energy  
ree Blvd.  
nce, Ohio 44101-4661

INPO Records Center  
Suite 1500  
1100 Circle 75 Parkway  
Atlanta, GA 30339

G. E. Muckle,  
Factory Mutual Engineering  
680 Anderson Drive #BLD. 7  
Pittsburgh, PA 15220-2773

Mr. Richard Janati  
Department of Environmental Resources  
P. O. Box 2063  
16th Floor, Fulton Building  
Harrisburg, PA 17120

Director, Safety Evaluation & Control  
Virginia Electric & Power Co.  
P.O. Box 26666  
One James River Plaza  
Richmond, VA 23261

W. Hartley  
Virginia Power Company  
5000 Dominion Blvd.  
2SW Glenn Allen, VA 23060

J. M. Riddle  
NUS Operating Service Corporation  
Park West II  
Cliff Mine Road  
Pittsburgh, PA 15275

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Bill Wegner, Consultant  
23 Woodlawn Terrace  
Fredricksburg, VA 22404

Ms. Pamela J. Cortazzo  
Westinghouse Electric Corporation  
Nuclear and Advanced Technology Division  
P.O. Box #355  
Pittsburgh, PA 15230-0355

Mail Stop: ECE 409

LICENSEE EVENT REPORT (LER)

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-630) 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)  
Beaver Valley Power Station Unit 1

DOCKET NUMBER (2)  
0 5 0 0 0 3 3 4 1

PAGE (3)  
1 OF 0 3

TITLE (4)  
ESF Actuation - Inadvertent Closure of Containment Isolation Valves TV-SS-117A, B and C

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	2	28	92	003		0	0	03	N/A		0 5 0 0 0
0	2	28	92	003		0	0	03	N/A		0 5 0 0 0

OPERATING MODE (9) 1

POWER LEVEL (10) 1, 0, 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)

<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input checked="" type="checkbox"/> 60.73(a)(2)(vi)	<input type="checkbox"/> 73.71(b)
<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 60.38(c)(1)	<input type="checkbox"/> 60.73(a)(2)(v)	<input type="checkbox"/> 73.71(a)
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 60.38(c)(2)	<input type="checkbox"/> 60.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 306A)
<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 60.73(a)(2)(i)	<input type="checkbox"/> 60.73(a)(2)(viii)(A)	
<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 60.73(a)(2)(ii)	<input type="checkbox"/> 60.73(a)(2)(viii)(B)	
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 60.73(a)(2)(iii)	<input type="checkbox"/> 60.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: T.P. Noonan, General Manager Nuclear Operations

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
D	E J	X X X X	X X X X	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE):  NO

EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

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

On 2/28/92, while operating at 100 percent power, operators removed the Steam Generator Blowdown System from service to support planned maintenance on blowdown sample valve TV-SS-109A2. Operators first closed the air-operated blowdown isolation valves TV-BD-100A,B and C, then de-energized their associated solenoids to ensure they would remain closed during maintenance activities. When the operators de-energized the solenoids, they also inadvertently de-energized auxiliary relay 63-SA in the blowdown isolation control circuit. When de-energized, this relay initiated an isolation signal and closed blowdown sample valves TV-SS-117A,B and C. These valves are containment isolation valves and are considered Engineered Safety Feature components. The power supply switch listing is being changed to indicate that the breaker supplying the solenoids for TV-BD-100A,B and C also supplies auxiliary relay 63-SA and can isolate TV-SS-117A,B and C. This event will be included in licensed operator retraining. There were no safety implications due to this event. The blowdown system and blowdown sampling system does not serve any safety function and is only used for long term secondary chemistry control.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATES 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)  Beaver Valley Power Station Unit 1	DOCKET NUMBER (2)  0 5 0 0 0 3 3 4 9 2	LER NUMBER (8)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		- 0 0 3	- 0 0 0	2	OF	0 3

TEXT (If more space is required, use additional NRC Form 305A's) (17)

Description of Event

On 2/28/92, operators were removing the Steam Generator Blowdown System from service to support planned maintenance on blowdown sample valve TV-SS-109A2. Operators removed the blowdown system from service by closing its air-operated isolation valves TV-BD-100A,B and C. After these valves were closed, operators de-energized their solenoid operated air valves to ensure that TV-BD-100A,B and C would not open during maintenance activities.

Operators observed that blowdown sample valves TV-SS-117A,B and C unexpectedly closed when they de-energized the solenoid air valves for TV-BD-100A,B and C. Investigation determined that when the control circuit for TV-BD-100A,B and C was de-energized, power was also removed from auxiliary relay 63-SA in the blowdown isolation circuit. Relay 63-SA is used to automatically isolate blowdown during auxiliary feedwater actuations to conserve steam generator inventory. When this relay was de-energized, it initiated an isolation signal to TV-SS-117A,B and C, causing them to close.

Cause of Event

This event was due to a deficiency in the power supply switch list for the solenoid operated air valves. This list specifies the breaker that supplies power to the solenoid air valves for TV-BD-100A,B and C. The list also provides a table of eight other valves powered by the same breaker. Neither TV-SS-117A,B and C nor relay 63-SA are included in this table.

This power supply switch list is a controlled document, part of the operating manual and the normal approved reference document for electrical switching. The operators used this list in preparing their clearance. Due to the deficiency in the list, the operators inadvertently de-energized the auxiliary relay.

Previous Similar Events

Review of station documents showed one previous similar event. Unit 2 LER 89-027 involved an ESF actuation that resulted from the inadvertent de-energization of a filtered water valve. The valve was de-energized during a clearance due to a deficiency in the Unit 1 120 Volt AC System Operating Manual load list.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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 20545, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  Beaver Valley Power Station Unit 1	DOCKET NUMBER (2)  0500033492	LER NUMBER (6)			PAGE (3)  03 OF 03
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	

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

Corrective Actions

- 1) The power supply switch listing is being changed to indicate that the breaker supplying the solenoids for TV-BD-100A,B and C also supplies auxiliary relay 63-SA and can isolate TV-SS-117A,B and C.
- 2) This event will be included in licensed operator retraining. This training will emphasize that while review of the load list is the minimum investigation necessary for electrical clearances, more extensive review is sometimes advisable for more complex clearances.
- 3) The station's Independent Safety Evaluation Group (ISEG) has initiated an accuracy check of the power supply switch listings. This accuracy check is based on an inspection of a sample of the loads on the listings. Any further samplings/corrective actions will be based on the results of this check.

Reportability

This event is being reported in accordance with 10CFR50.73.a.2.iv as an event involving an unplanned ESF actuation. Although the blowdown isolation signal that initiated this event is not an ESF signal, the blowdown sample valves TV-SS-117A,B and C are containment isolation valve and considered Engineered Safety Feature components.

Safety Analysis

There were no safety implications due to this event. The blowdown system had been removed from service prior to this event and was not affected by the blowdown isolation signal. The blowdown sampling system is only used intermittently by chemistry to determine steam generator chemistry. The sampling system was not being used during this event. Blowdown is primarily used for steam generator chemistry control. While long term isolation of blowdown during operation would lead to undesirable secondary chemistry, the temporary isolation that occurred during this event did not cause any administrative chemistry operating limits to be exceeded.

(References: Beaver Valley Unit 1 UFSAR Section 5.3, "Containment Isolation System" and Section 10.3.8.3, "Secondary Vents and Drains Performance Analysis.")