



Nuclear Group  
P.O. Box 4  
Shippingport, PA 15077-0004

Telephone (412) 393-6000

October 12, 1990  
ND3MNO:3046

Beaver Valley Power Station, Unit No. 2  
Docket No. 50-412, License No. NPF-73  
LER 90-012-G0

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 90-012-00, 10 CFR 50.73.a.2.iv, "ESF Actuation - Containment Purge Isolation Due To Improper Radiation Monitor Restoration".

Very truly yours,

T. P. Noonan  
General Manager  
Nuclear Operations

JCT/s1

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  
Akron, OH 44308

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

J. Beall, Nuclear Regulatory Commission,  
BVPS Senior Resident Inspector

Larry Beck  
Cleveland Electric  
6200 Oak Tree Blvd.  
Independence, Ohio 44101

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

G. E. Muckle,  
Factory Mutual Engineering  
680 Anderson Drive #BLD10  
Pittsburgh, PA 15220-2773

Mr. J. N. Steinmetz, Operating Plant Projects Manager  
Mid Atlantic Area  
Westinghouse Electric Corporation  
Energy Systems Service Division  
Box 355  
Pittsburgh, PA 15230

American Nuclear Insurers  
c/o Dottie Sherman, ANI Library  
The Exchange Suite 245  
270 Farmington Avenue  
Farmington, CT 06032

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

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W. Hartley  
Management Analysis Company  
112671 High Bluff Drive  
San Diego, CA 92130-2025

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

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-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 2		DOCKET NUMBER (2) 05000412	PAGE (3) 1 OF 04
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TITLE (4)  
ESF Actuation - Containment Purge Isolation Due To Improper Radiation Monitor Restoration

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			050000
09	13	90	90	012	00	01	01	290				050000

OPERATING MODE (9) 5

POWER LEVEL (10) 000

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

20.402(b)	20.406(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
20.406(a)(1)(i)	50.36(e)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	73.71(c)
20.406(a)(1)(ii)	50.36(e)(2)	<input type="checkbox"/>	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.406(a)(1)(iii)	50.73(a)(2)(i)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	
20.406(a)(1)(iv)	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	
20.406(a)(1)(v)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME T.P. Noonan, General Manager Nuclear Operations	TELEPHONE NUMBER AREA CODE 412 643-1258
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRRDS
A	I	L	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 9/13/90 at 1000 hours, Instrument and Control (I&C) personnel and Radiation Control (RadCon) personnel began a source calibration on the "B" Train Containment Ventilation Radiation Monitor, 2HVR\*RQI104B. This monitor had previously been taken out of service on 9/11/90 due to increasing background readings with no corresponding increase in radioactive concentration. At 1243 hours, the control room operators observed an automatic closure of the "B" train Containment Purge Exhaust Dampers, 2HVR\*MOD23B and 25B, due to a high radiation signal from 2HVR\*RQI104B. The closure resulted from a communications error by RadCon personnel during the restoration of the monitor. The closure of these dampers is an Engineered Safety Features System Actuation, as these dampers provide a containment purge isolation function in the event of high radiation during refueling. The radiation monitor was subsequently restored to service in the correct manner and Containment ventilation was returned to normal status. There were no safety implications to the public as a result of this event. The high radiation signal resulted from a personnel error and not from actual radiation levels. The containment ventilation system isolated as designed to contain any radioactivity inside containment.

**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 (F-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.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	

TEXT (if more space is required, use additional NRC Form 306A's) (17)

DESCRIPTION OF EVENT

On 9/13/90 at 1000 hours, Instrument and Control (I&C) personnel and Radiation Control (RadCon) personnel began a source calibration on the "B" Train Containment Ventilation Radiation Monitor, 2HVR\*RQI104B. This monitor had previously been taken out of service on 9/11/90 due to increasing background readings with no corresponding increase in radioactive concentration. At 1243 hours, the control room operators observed an automatic closure of the "B" train Containment Purge Discharge and Supply Isolation Dampers, 2HVR\*MOD23B and 25B, due to a high radiation signal as sensed by 2HVR\*RQI104B.

CAUSE OF THE EVENT

The cause of the event was a communication error by the RadCon personnel involved with the source calibration on 2HVR\*RQI104B. Prior to performing the source calibration, the Radiation Technician (RadTech) changes the High alarm setpoint of the radiation monitor to an artificially higher value to prevent inadvertent damper actuations during the calibration. This process is controlled through a Database Change Procedure. The RadTech also changes the display of the radiation monitor to indicate in counts per minute (CPM) versus the normal readout of microcuries per cubic centimeter. This is performed to confirm source responses and is part of the detector restoration procedure.

Following completion of the source responses, the control room indication is changed to indicate in microcuries per cubic centimeter and the High alarm setpoint is returned to its normal value. However, in this case, a communications error by RadCon personnel resulted in the initiation of the database change procedure prior to the completion of the detector restoration procedure. The monitor was reading approximately 90 to 100 CPM when the High alarm setpoint was returned to its normal value, which is in the 10E-5 microcuries per cubic centimeter range. Upon restoring the setpoint, the monitor went into high alarm and initiated closure of 2HVR\*MOD23B and 25B.

CORRECTIVE ACTIONS

The following corrective actions have been or will be taken as a result of this event:

1. The control room indication display was changed to microcuries per cubic centimeter and the High alarm setpoint was returned to its normal value. The calibration of the radiation monitor was completed on 9/13/90 at 1420 hours.

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 (F-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.

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		9 0	0 1 2	0 0 0		

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

2. The radiation monitor was returned to service following completion of its respective surveillance test on 9/13/90 at 1530 hours.
3. The maintenance surveillance procedures for the Unit 2 Control Room Radiation Monitors, 2HVR\*RQI104A and 104B, will be revised to require that the automatic actuation signals for the Containment Purge Discharge and Supply Isolation Dampers, due to a high radiation signals, will be disabled during the performance of the calibration procedures.

REPORTABILITY

This event was reported to the Nuclear Regulatory Commission at 1243 hours on 9/13/90, in accordance with 10 CFR 50.72.b.2.ii, as an event involving an Engineered Safety Features (ESF) System Actuation. This written report is being submitted in accordance with 10 CFR 50.73.a.2.iv.

PREVIOUS OCCURRENCES

The following are RadCon personnel related similar events which were previously reported as Licensee Event Reports:

- LER 89-016-00 "Radwaste in Transit Not Properly Posted"
- LER 89-026-00 "Inadvertent Steam Generator Blowdown Isolation - ESF Actuation"

Two other containment purge isolations were previously reported as Unit 2 Licensee Event Reports:

- LER 89-010-00 "Containment Purge/Exhaust Ventilation Realignment Due To High Radiation"
- LER 90-011-00 "Containment Purge Isolation Due To High Radiation Signal Caused By Electrical Spike (Lightning)"

**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 (F-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20655, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20603.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

TEXT (If more space is required, use additional NRC Form 386A's) (17)

**SAFETY IMPLICATIONS**

There were no safety implications to the public as a result of this event. There was no actual high radioactivity present which would have required Containment Purge isolation. The automatic valve closures resulted from returning the monitor to service without the correct conversion factors (display indication). A check of the redundant containment radiation monitor, 2HVR\*RQI104A, showed expected radioactivity levels for these plant conditions. The operation of the Containment Purge and Exhaust Ventilation System is discussed in the Updated Final Safety Analysis Report (UFSAR) Section 9.4.7.3, "Containment Purge Air System".