



Duquesne Light Company

Beaver Valley Power Station
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April 30, 1996
NPD1VPO:0470

Beaver Valley Power Station, Unit No. 1
Docket No. 50-334, Licensee No. DPR-66
LER-96-005-00

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 96-005-00, Unit 1, Core Alterations Performed Without the Required Radiation Monitors Being in Service, reportable in accordance with 10 CFR 50.73a.2.i.B, (Condition Prohibited by Technical Specifications).

T. P. Noonan
Division Vice President
Nuclear Operations/Plant Manager

GFZ/nlc

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

Mr. D. S. Brinkman
BVPS Licensing Project Manager
United States Nuclear Regulatory Commission
Washington, DC 20555

Mr. Larry Rossbach
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One James River Plaza
Richmond, VA 23261

LICENSEE EVENT REPORT (LER)

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 90.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION 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 MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Beaver Valley Power Station Unit 1	DOCKET NUMBER (2) 05000334	PAGE (3) 1 OF 3
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Core Alterations Performed Without the Required Radiation Monitors Being in Service

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
04	01	96	96	005	00	04	30	96	N/A	05000
									N/A	05000

OPERATING MODE (9)	6	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)									
		20.402(b)			20.405(c)			50.73(a)(2)(iv)			73.71(b)
POWER LEVEL (10)	0	20.405(a)(1)(i)			50.36(c)(1)			50.73(a)(2)(v)			73.71(c)
		20.405(a)(1)(ii)			50.36(c)(2)			50.73(a)(2)(vii)			OTHER
		20.405(a)(1)(iii)			X 50.73(a)(2)(i)			50.73(a)(2)(viii)(A)			(Specify in abstract below and in Text NRC Form 366A)
		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 T. P. Noonan, Vice-President Nuclear Operations/Plant Manager	TELEPHONE NUMBER (include Area Code) (412) 393-7622
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS				COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
A	IL	XXX	XXXX	N						

SUPPLEMENTAL REPORT EXPECTED (14)				EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (if yes, complete EXPECTED SUBMISSION DATE)	X	NO					

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

On April 1, 1996 with Unit 1 in Mode 6, preparations for removing the reactor vessel head were in progress. The containment purge and exhaust radiation monitors were removed from service and the purge and exhaust dampers were shut per the refueling procedure to remove the reactor vessel head. During the subsequent flooding of the refueling cavity, the radiation monitors were returned to service and the dampers opened to prevent increasing pressure inside containment. Five minutes later, one of the radiation monitors alarmed Hi-Hi, initiating the isolation of the purge and exhaust dampers. The radiation monitors were then turned off and the purge and exhaust dampers were opened, contrary to the technical specification that requires at least one of these radiation monitors to be operable in Mode 6 or the dampers must be closed. Later that day, control rod drag testing as required per NRC Bulletin 96-01, commenced. This constitutes a core alteration and as such the containment purge and exhaust radiation monitors are required to be in service if the purge and exhaust dampers are open. Approximately one hour later, it was discovered that the radiation monitors were not turned on. At that time the monitors were immediately placed in service. This report is being submitted under 10 CFR 50.73(a)(2)(i)(B) as an operation or condition prohibited by the Plant Technical Specifications.

**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 INFORMATION 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 MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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Beaver Valley Power Station Unit 1	05000334	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		96	005	00	

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

DESCRIPTION OF EVENT

On April 1, 1996, with Unit 1 in Mode 6, preparations for removing the reactor vessel head were in progress. At 1109 the containment purge and exhaust radiation monitors were removed from service and the purge and exhaust dampers were shut per the refueling procedure to remove the reactor vessel head. At 1405, during the subsequent filling of the refueling cavity, the radiation monitors were returned to service and the dampers were re-opened to prevent pressure increasing inside containment. At 1410, one of the containment purge and exhaust radiation monitors alarmed and initiated the isolation of the purge and exhaust dampers. The actuation was caused by increased containment airborne activity due to water turbulence during the refueling cavity fill. The monitors' actuation setpoint had been set, for core alteration and irradiated fuel movement in containment in Mode 6. The radiation monitors were then turned off and the purge and exhaust dampers were opened contrary to the technical specification that requires at least one of these radiation monitors to be operable in Mode 6 or the dampers must be closed. The dampers were opened due to a concern that as air is displaced by water while the cavity fills the pressure inside containment will increase. At 2156, control rod drag testing, as required per NRC Bulletin 96-01, commenced. This constitutes a core alteration and as such the containment purge and exhaust radiation monitors are required to be in service if the containment purge and exhaust dampers are open. Forty-four minutes later, it was discovered that the radiation monitors had not been returned to service after completing the cavity fill.

Prior to the start of core alterations the Refueling Senior Reactor Operator (SRO) verifies the radiation monitors are in service by checking the Reactor Operators' (RO) logs. The Refueling SRO checked the surveillance log which was completed prior to de-energizing the radiation monitors. The radiation monitors were turned off after the daylight logs were performed. The Refueling Operations Prerequisites procedure, which must be completed prior to performing core alterations, contains a step to verify the radiation monitors are in service but this also was signed at a time when the monitors were in service. When it was realized the radiation monitors were not in service they were immediately returned to service. This report is being submitted under 10 CFR 50.73 (a)(2)(i)(B) as an operation or condition prohibited by the Plant Technical Specifications due to core alterations being performed without the required radiation monitor in service.

CAUSE OF EVENT

A contradiction exists between the Refueling procedure, Reactor Vessel Head Removal and Lift Rig Checkout, and the Operations procedure, Filling Reactor Refueling Cavity. The Refueling procedure has the purge and exhaust radiation monitors turned off and the purge and exhaust dampers closed prior to the vessel head lift then returns them to service after the vessel head is lowered and the lifting rig is removed. This is well after the refueling cavity flood has been completed. The Operations procedure has an initial condition that, prior to initiating the flood of the refueling cavity, the containment ventilation is established to permit the venting of the air displaced as the cavity fills.

CORRECTIVE ACTIONS

1. Refueling procedures and Operation surveillance procedures will be evaluated and revised as required to provide proper coordination of the radiation monitors in compliance with the Technical Specifications prior to and during core alterations.
2. The Refueling Senior Reactor Operators were instructed to perform the radiation monitor operability verification at the actual radiation monitor and not rely on operator's log entries.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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		96	005	00	

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

REPORTABILITY

This condition is being reported as a condition prohibited by the Plant Technical Specification in accordance with 10 CFR 50.73 (a)(2)(i)(B) due to core alterations being performed without the required radiation monitor in service.

SAFETY IMPLICATIONS

There were no safety implications due to this event. The containment purge system is designed to isolated in response to high containment activity. The exhaust flow was being directed through the Supplementary Leak Collection and Release System main filter banks. The Reactor Building/Supplementary Leak Collection and Release System, gas and particulate radiation monitors were in service during the time of this event and would have alerted the reactor control operators of any significant increase of containment activity. No increase in activity was noted during the performance of core alterations while the radiation monitors were turned off.

PREVIOUS SIMILAR EVENTS

There have been no similar events associated with the containment purge and exhaust radiation monitors at either unit for the last two years.