

# **ENERGY NORTHWEST**

P.O. Box 968 ■ Richland, Washington 99352-0968

December 8, 2003  
GO2-03-181

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397;  
LICENSEE EVENT REPORT 2003-010-00**

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2003-010-00 for Columbia Generating Station. This report is submitted pursuant to 10 CFR § 50.73(a)(2)(v)(D). The report discusses items of reportability and corrective actions taken.

If you have any questions or desire additional information regarding this matter, please contact Ms. CL Perino at (509) 377-2075.

Respectfully,



RL Webring  
Vice President, Nuclear Generation  
Mail Drop PE04

Enclosure: Licensee Event Report 2003-010-00

cc: BS Mallet - NRC - RIV  
BJ Benney - NRC - NRR  
INPO Records Center  
NRC Sr. Resident Inspector - 988C (2)  
RN Sherman - BPA/1399  
TC Poindexter - Winston & Strawn  
WB Jones - NRC RIV/fax



<b>NRC FORM 366</b> (1-2001)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		<b>APPROVED BY OMB NO. 3150-0104</b> Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington DC 20555-0001, or by internet e-mail to <a href="mailto:bis1@nrc.gov">bis1@nrc.gov</a> , and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.		<b>EXPIRES 6-30-2001</b>				
<b>LICENSEE EVENT REPORT (LER)</b> (See reverse for required number of digits/characters for each block)										
<b>FACILITY NAME (1)</b> Columbia Generating Station				<b>DOCKET NUMBER (2)</b> 05000397		<b>PAGE (3)</b> 1 OF 3				
<b>TITLE (4)</b> Unanticipated Inoperability of the Single Train High Pressure Core Spray System										
<b>EVENT DATE (5)</b>			<b>LER NUMBER (6)</b>			<b>REPORT DATE (7)</b>			<b>OTHER FACILITIES INVOLVED (8)</b>	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	7	2003	2003	- 010 -	00	12	08	2003	FACILITY NAME	DOCKET NUMBER
<b>OPERATING MODE (9)</b>		<b>POWER LEVEL (10)</b>		<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)</b>						
1		100		20.2201(b)		20.2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)
				20.2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)
				20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)
				20.2203(a)(2)(i)		50.36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)
				20.2203(a)(2)(ii)		50.36(c)(2)		50.73(a)(2)(v)(B)		Other Specify in Abstract below or in NRC Form 366A
				20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)		
				20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		X 50.73(a)(2)(v)(D)		
				20.2203(a)(2)(v)		50.73(a)(2)(i)(B)		50.73(a)(2)(vii)		
				20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)		
				20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50.73(a)(2)(viii)(B)		
<b>LICENSEE CONTACT FOR THIS LER (12)</b>										
<b>NAME</b> Fred A. Schill								<b>TELEPHONE NUMBER (Include Area Code)</b> (509) 377-2269		
<b>COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)</b>										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	
<b>SUPPLEMENTAL REPORT EXPECTED (14)</b>								<b>EXPECTED SUBMISSION DATE (15)</b>		
YES (If yes, complete EXPECTED SUBMISSION DATE).					X	NO		MONTH	DAY	YEAR
<b>ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)</b>  At 1231 on October 7, 2003, with the plant in mode 1, a depressurization of the High Pressure Core Spray (HPCS) system [BG] occurred while the HPCS system waterleg piping was isolated during an unscheduled maintenance activity to replace the power frame on the waterleg pump motor. System pressure unexpectedly decreased to below the low pressure alarm point requiring plant operators to remove fuses for the main HPCS pump and perform a system fill and vent procedure. These actions rendered the single train HPCS system inoperable. With the HPCS system inoperable, the action required by Technical Specifications Limiting Condition for Operation (LCO) 3.5.1.B to verify operability of the Reactor Core Isolation Cooling system [BN] and restore HPCS within 14 days was taken. Approximately three hours later at 1538, after verifying the system was filled and vented, and the pump fuses reinstalled, the HPCS system was declared operable and all requirements of LCO 3.5.1 were met. The cause of this event is attributed to the judgment of control room operators who allowed the maintenance to proceed when contingency actions to be taken in the event of unexpected system conditions had not been pre-planned. Prior to the maintenance, the control room operators developed contingency actions that were not adequate to manage a rapid depressurization of the HPCS system. There were no safety consequences associated with the inoperable HPCS system and this event did not represent an actual loss of a safety function for greater than the time allowed by Technical Specifications.										

## LICENSEE EVENT REPORT (LER)

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

Event Description

At 1231 on October 7, 2003, with the plant in mode 1, a depressurization of the High Pressure Core Spray (HPCS) system [BG] occurred while the HPCS system waterleg piping was isolated during an unscheduled maintenance activity to replace the power frame on the waterleg pump motor. System pressure unexpectedly decreased to below the low pressure alarm point requiring plant operators to remove fuses for the main HPCS pump and perform a system fill and vent procedure. These actions rendered the single train HPCS system inoperable.

Immediate Corrective Action

With the HPCS system inoperable, the action required by Technical Specifications Limiting Condition for Operation (LCO) 3.5.1.B to verify operability of the Reactor Core Isolation Cooling (RCIC) system [BN] and restore HPCS within 14 days was taken. Approximately three hours later at 1538, after verifying the system was filled and vented, and the pump fuses reinstalled, the HPCS system was operable and all requirements of LCO 3.5.1 were met. As an additional measure, control room operators have been instructed to maintain an oversight role of maintenance activities and be less involved in the work planning process.

Root Cause

The cause of this event is attributed to the judgment of control room operators who allowed the unscheduled maintenance to proceed when contingency actions to be taken in the event of unexpected system conditions had not been pre-planned. Currently, development of contingency plans is included in the work planning process only for higher risk maintenance activities. In this case, plant operators developed the contingency plan during a pre-job briefing that was conducted just prior to performance of the maintenance activity. The operator's plan was to start the main HPCS pump (HPCS-P-1) if system pressure decreased significantly (to below ~80 psi) from the initial pressure of approximately 105 psi while the power frame was being replaced. However, the system pressure decreased more rapidly than expected and HPCS-P-1 could not be started before the low-pressure alarm actuated. Alternatives to the operator's contingency plan that would not have resulted in a reportable event would be to run HPCS-P-1 during the power frame replacement to maintain system pressure or remove the HPCS system from service in accordance with approved procedures and Technical Specifications prior to maintenance.

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Further Corrective Action

The work planning process will be revised to ensure unscheduled (emergent) work will receive the same level of rigor for assessing potential risks as normally scheduled maintenance activities.

Assessment of Safety Consequences

There were no safety consequences associated with this event and the HPCS system was not inoperable for greater than the 14-day outage time allowed by Technical Specifications. Additionally, the independent RCIC system was available to perform the safety function of high-pressure injection during the time HPCS was inoperable.

Similar Events

There have been no previous similar events in which a condition reportable pursuant to 10 CFR § 50.73(a)(2)(v)(D) existed due to allowing maintenance to be conducted without pre-planned contingency actions.