

ENERGY NORTHWEST

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

March 23, 2004
G02-04-048

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 NO. 2004-001-00

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2004-001-00 for the Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(vii). The enclosed report discusses items of reportability and corrective actions taken.

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

Respectfully,



DK Atkinson
Vice President, Technical Services
Mail Drop PE08

Enclosure: 1) Licensee Event Report 2004-001-00

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

IE22

LICENSEE EVENT REPORT (LER)

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

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 bis1@nrc.gov, 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.

1. FACILITY NAME Columbia Generating Station	2. DOCKET NUMBER 05000397	3. PAGE 1 OF 3
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4. TITLE
Unanticipated inoperability of both Control Room Emergency Filtration (CREF) subsystems

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
1	23	2004	2004	- 001 -	00	3	23	2004	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE 1	10. POWER LEVEL 100%	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)								
		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		
		20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)		Specify in Abstract below or in NRC Form 366A		
		20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)		50.73(a)(2)(v)(D)				
		20.2203(a)(2)(v)	X	50.73(a)(2)(i)(B)	X	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)				

12. LICENSEE CONTACT FOR THIS LER

NAME Pamela K. Ankrum	TELEPHONE NUMBER (Include Area Code) (509) 377-4513
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

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

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

At 1315 on January 23, 2004, with the plant in Mode 1 at approximately 100 percent rated thermal power, it was determined that a condition prohibited by the Columbia Generating Station Technical Specifications (TS) existed from 1500 on October 27 through 2100 on October 29, 2003 and from 1305 on November 10 through 1052 on November 11, 2003 when testing was conducted to measure control room in-leakage. During this test, common ducts for both Control Room Emergency Filtration (CREF) subsystems were breached multiple times by removing duct access panels to install and remove test equipment. During the time the access panels were removed, a flow path was created that would have challenged the CREF's ability to pressurize the control room and mitigate the consequences of an accident. Both CREF subsystems were determined to have been inoperable when the access panels were removed. With two CREF subsystems inoperable, TS 3.7.3 directs immediate entry into TS Limiting Condition for Operation (LCO) 3.0.3. The fact that removing the access panels caused both CREF subsystems to become inoperable was not recognized at the time the tests were performed because the HVAC ducts were allowed to be breached for short periods of time by the plant barrier impairments procedure.

The cause of this event is attributed to inadequate guidance in the Columbia Generating Station barrier impairment procedure. The cause of the inadequate guidance in the procedure was a lack of understanding of regulatory guidance associated with barrier impairments.

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

DESCRIPTION OF EVENT

At 1315 on January 23, 2004, with the plant in Mode 1 at approximately 100 percent rated thermal power, it was determined that a condition prohibited by the Columbia Generating Station Technical Specifications (TS) existed from 1500 on October 27 through 2100 on October 29, 2003 and from 1305 on November 10 through 1052 on November 11, 2003 when testing was conducted to measure control room in-leakage. The test employed ANSI N510-1989 component test methodology and was not a routine surveillance. During preparation for and restoration from this test, the approved test procedure allowed common ducts for both Control Room Emergency Filtration (CREF) subsystems to be breached by removing duct access panels. The access panels were removed to allow installation and removal of test equipment. During the time that the access panels were removed, an airflow path was created that would have challenged the ability of both CREF subsystems to pressurize the control room to the pressure required by the TS. Since the extent of the system challenge could not be determined, both CREF subsystems were conservatively determined to have been inoperable when the access panels were removed.

With two CREF subsystems inoperable TS 3.7.3, Required Action D.1, directs immediate entry into TS Limiting Condition for Operation (LCO) 3.0.3. TS LCO 3.0.3 requires actions to be initiated within one hour to place the plant in applicable modes. It was not recognized at the time the tests were performed that both CREF subsystems were inoperable because removal of access panels was allowed by the plant barrier impairments procedure. This procedure allowed the access panels to be removed provided the breach was continuously attended and could be restored quickly. During performance of the test, the subsystem being tested was tagged out of service and the applicable TS Action Statement was entered for that subsystem.

ASSESSMENT OF SAFETY CONSEQUENCES

The CREF System is designed to provide a radiologically controlled environment to ensure the habitability of the control room for the safety of control room operators under all plant conditions.

Because there was no demand to pressurize the main control room with filtered air, there were no actual safety consequences associated with both CREF subsystems being rendered inoperable. Since the duct breach was continuously attended and could have been restored quickly if the CREF system was called upon, there is a reasonable expectation that the CREF system would have been able to perform its safety function. It is expected that the system would have been restored within a short time period to keep dose to Control Room personnel within regulatory limits.

This event is considered reportable in accordance with 10 CFR § 50.73(a)(2)(i)(B) and 10 CFR § 50.73(a)(2)(vii).

IMMEDIATE CORRECTIVE ACTIONS

This event was discovered during a review of test documents after the test was completed. At the time of discovery, the testing was complete and the CREF system was in a normal standby configuration.

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A Stop Work Order was generated to ensure that breaches of plant systems and barriers were performed in accordance with regulatory requirements and guidance. Procedures and model work order instructions related to Control Room HVAC were reviewed to identify those activities that, if implemented as written, could challenge CREF system operability or result in conditions prohibited by TS.

CAUSE OF THE EVENT

The cause of this event is attributed to inadequate and incorrect guidance in the Columbia Generating Station barrier impairment process and procedures. The cause of the inadequate guidance in the procedure was a lack of understanding of regulatory guidance associated with barrier impairments.

ACTIONS TO PREVENT RECURRENCE

The Barrier Impairment procedure will be modified to clarify equipment operability requirements, to further reinforce the need for a thorough risk assessment of hazard barrier breaches, and to ensure other types of hazard barrier breaches do not result in violating TS requirements.

Other procedures were reviewed for similar vulnerabilities. Several procedures were identified that referenced the Barrier Impairment procedure and/or had similar wording. These procedures have been corrected, are temporarily deactivated, or a Stop Work Order has been issued until adequate corrections have been implemented.

PREVIOUS SIMILAR EVENTS

LER 203-012-00 describes a previous similar event in which a condition reportable pursuant to 10 CFR § 50.73(a)(2)(v)(D) and 10 CFR § 50.73(a)(2)(vii) existed. On November 4, 2003, with the plant in Mode 1, it was determined that a condition that could have prevented the fulfillment of a safety function needed to mitigate the consequences of an accident had existed on November 1, 2003. This condition occurred when the normal and both remote outside air intakes for the CREF system were manually isolated for a period of approximately 4 hours during testing to measure control room in-leakage. In this configuration, the CREF system cannot perform its design safety function to pressurize the main control room with filtered air as described in Columbia's accident analysis. The cause of this event is attributed to inadequate preparation and review of the test procedure used to measure control room in-leakage.

An Energy Northwest team investigating the root cause for the event described in LER 203-012-00 discovered the event described in this LER.