

April 21, 2005
GO2-05-078

U.S. Nuclear Regulatory Commission
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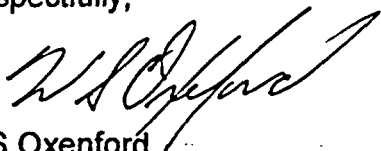
Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397
LICENSEE EVENT REPORT NO. 2005-001-00**

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2005-001-00 for the Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(i)(B). The enclosed report discusses items of reportability and corrective actions taken.

If you have any questions or require additional information, please contact Mr. GV Cullen at (509) 377-6105.

Respectfully,



WS Oxenford
Vice President, Technical Services
Mail Drop PE04

Enclosure: Licensee Event Report 2005-001-00

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

IE22

NRC FORM 366 (6-2004)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104 EXPIRES 6-30-2007 <small>Estimated burden per response to comply with this mandatory 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 and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington DC 20555-0001, or by Internet e-mail to infocollects@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 an 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.</small>					
<h2 style="margin: 0;">LICENSEE EVENT REPORT (LER)</h2> <p style="margin: 0;">(See reverse for required number of digits/characters for each block)</p>										
1. FACILITY NAME Columbia Generating Station				2. DOCKET NUMBER 05000397		3. PAGE 1 OF 3				
4. TITLE Potential Breach of Secondary Containment Following Seismic Event										
5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV. NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
02	24	05	2005-001-00			04	21	05	FACILITY NAME	DOCKET NUMBER
										05000
										05000
9. OPERATING MODE			11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: (Check all that apply)							
1			<input type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2203(a)(3)(i) <input type="checkbox"/> 50.73(a)(2)(i)(C) <input type="checkbox"/> 50.73(a)(2)(vii)							
			<input checked="" type="checkbox"/> 20.2201(d) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(viii)(A)							
10. POWER LEVEL 100			<input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.73(a)(2)(ii)(B) <input type="checkbox"/> 50.73(a)(2)(viii)(B)							
			<input type="checkbox"/> 20.2203(a)(2)(i) <input type="checkbox"/> 50.36(c)(1)(i)(A) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(ix)(A)							
			<input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 50.36(c)(1)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(iv)(A) <input type="checkbox"/> 50.73(a)(2)(x)							
			<input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.73(a)(2)(v)(A) <input type="checkbox"/> 73.71(a)(4)							
			<input type="checkbox"/> 20.2203(a)(2)(iv) <input type="checkbox"/> 50.46(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(v)(B) <input type="checkbox"/> 73.71(a)(5)							
			<input type="checkbox"/> 20.2203(a)(2)(v) <input type="checkbox"/> 50.73(a)(2)(i)(A) <input type="checkbox"/> 50.73(a)(2)(v)(C) <input type="checkbox"/> OTHER							
			<input type="checkbox"/> 20.2203(a)(2)(vi) <input checked="" type="checkbox"/> 50.73(a)(2)(i)(B) <input type="checkbox"/> 50.73(a)(2)(v)(D)							
12. LICENSEE CONTACT FOR THIS LER										
NAME Fred Schill – Licensing Engineer								TELEPHONE NUMBER (Include Area Code) 509-377-2269		
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		MONTH	DAY	YEAR	
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)					<input checked="" type="checkbox"/> NO					
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) On 2/25/05, Energy Northwest reported (ref: Event Report 41442) a condition at Columbia Generating Station that was discovered while reviewing plant service water (TSW) [KG] system design documents. Energy Northwest determined that seismic category II TSW piping in the turbine (TG) [NM] and radwaste (RW) [NE] buildings could rupture and drain during a seismic event. Draining of the loop seal in this piping would result in an inoperable secondary containment (SC) [NG] because two TSW system high point vent valves located within the secondary containment would automatically open resulting in direct communication between SC atmosphere and the TG/RW atmospheres. Such an occurrence would exceed the SC leakage rate assumed in Columbia's accident analysis. To prevent an excessive leakage rate during such an event, one of the two vent valves has been deactivated in the closed position. Columbia's safety analysis does not postulate a release of radioactive material in excess of Part 100 limits for a Safe Shutdown Earthquake (SSE) that causes SC to become inoperable in this fashion. Analysis shows that the SSE will not in itself cause a LOCA and it is beyond design and licensing bases to assume a LOCA coincident with a seismic event. In the event that the SSE made SC inoperable, the Technical Specifications (LCO 3.6.4.1.B) require that the plant be in mode 3 in 12 hours and in mode 4 in 36 hours. Since this is achievable it is reasonable to conclude that, in the event described in the report, plant shutdown can be accomplished without radiological release and within the completion time of the action required by the Technical Specifications. Although safe shutdown of the plant without radiological release is assured post SSE, SC would not be considered operable in the reported condition because seismic requirements were not met. Therefore this condition is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) because SC was inoperable for a greater period of time than allowed by Technical Specifications.										

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Columbia Generating Station	05000397	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2005-001-00			

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

Plant Condition

Plant operating conditions before the event were mode 1 and 100% power.

Event Description

On 2/25/05, Energy Northwest reported (ref: Event Report 41442) a condition at Columbia Generating Station that was discovered while reviewing plant service water (TSW) [KG] system design documents. Energy Northwest determined that seismic category II TSW piping in the turbine (TG) [NM] and radwaste (RW) [NE] buildings could rupture and drain during a seismic event. Draining of the loop seal in this piping would result in an inoperable secondary containment (SC) [NG] because two TSW system high point vent valves located within the secondary containment would automatically open resulting in direct communication between SC atmosphere and the TG/RW atmospheres. Such an occurrence would exceed the SC leakage rate assumed in Columbia's accident analysis.

Immediate Corrective Action

To reduce SC leakage rate to within the assumed value during the described event, one of the two TSW high point vent valves was deactivated in the closed position.

Cause

The cause of this deficiency in Columbia's design is that original design engineers did not incorporate an SC boundary within the TSW system that would withstand an SSE.

Further Corrective Action

An extent of condition evaluation has determined no other condition exists that would present an additional SC breach pathway that would result in an inoperable SC. Additionally, as detailed in a letter submitted to NRC on September 30, 2004, (GO2-04 -170, "License Amendment Request – Alternative Source Term), Energy Northwest has submitted analyses which demonstrate the ability of SC to perform its designed safety function with SC leakage in excess of that presented by the design deficiency described in this report.

Immediate corrective actions are adequate to rectify the condition until a permanent long term design solution is completed.

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Assessment of Safety Consequences

There are two principal accidents in Columbia's safety analysis for which SC is credited as a mitigating system. These are the Loss Of Coolant Accident (LOCA) and the Fuel Handling Accident (FHA). The SC performs no active function in response to either of these limiting events, however, its leak tightness is required to ensure that the release of radioactive materials from the primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis, and that fission products entrapped within the SC structure will be treated prior to discharge to the environment.

Columbia's safety analysis does not postulate a release of radioactive material in excess of Part 100 limits for a Safe Shutdown Earthquake (SSE) that causes SC to become inoperable in this fashion. Analysis shows that the SSE will not in itself cause a LOCA and it is beyond design and licensing bases to assume a LOCA coincident with a seismic event. In the event that the SSE made SC inoperable, the Technical Specifications (LCO 3.6.4.1.B) require that the plant be in mode 3 in 12 hours and in mode 4 in 36 hours. Since this is achievable, it is reasonable to conclude that, in the event previously reported, plant shutdown can be accomplished without radiological release and within the completion time of the action required by the Technical Specifications. Additionally, historical records show that during the last three years the high point vent valves were not opened during a time when SC was required to be operable.

Although safe shutdown of the plant without radiological release is assured post SSE, SC would not be considered operable in the reported condition because seismic requirements were not met. Therefore this condition is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B) because SC was inoperable for a greater period of time than allowed by Technical Specifications.

There were no safety consequences associated with this condition.

Similar Events

No previous events were identified where seismic category II piping outside SC was postulated to affect SC integrity as a result of an SSE.

Energy Industry Identification System Information codes from IEEE Standards 805-1984 and 803-1983

These are noted the first time they are used in the LER text as required by IEEE Standards.