



# ENERGY NORTHWEST

W. Grover Hettel  
Columbia Generating Station  
P.O. Box 968, PE23  
Richland, WA 99352-0968  
Ph. 509.377.8311 | F. 509.377.4150  
wghettel@energy-northwest.com

February 28, 2013  
GO2-13-033

10 CFR 50.73

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. 2012-007-00**

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2012-007-00 for Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(v)(C) and (D), which requires the reporting of any condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to: control the release of radioactive material and mitigate the consequences of an accident.

There are no commitments being made to the NRC by this letter. If you have any questions or require additional information, please contact Mr. ZK Dunham at (509) 377-4735.

Respectfully,

WG Hettel  
Vice President, Operations

Attachment: Licensee Event Report 2012-007-00

cc: NRC Region IV Administrator  
NRC NRR Project Manager  
NRC Senior Resident Inspector/988C  
AJ Rapacz – BPA/1399  
WA Horin – Winston & Strawn

IEAD  
NRR

<b>NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION</b> (10-2010)	APPROVED BY OMB NO. 3150-0104 <span style="float: right;">EXPIRES 10/31/2013</span> Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to <a href="mailto:infocollects.resource@nrc.gov">infocollects.resource@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 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.
<b>LICENSEE EVENT REPORT (LER)</b> (See reverse for required number of digits/characters for each block)	

<b>1. FACILITY NAME</b> Columbia Generating Station	<b>2. DOCKET NUMBER</b> <b>05000397</b>	<b>3. PAGE</b> <b>1 OF 3</b>
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**4. TITLE**  
 Secondary Containment Inoperable due to both Airlock Doors being Open

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
12	30	2012	2012 - 007 - 00			02	28	2013	FACILITY NAME	DOCKET NUMBER <b>05000</b>
									FACILITY NAME	DOCKET NUMBER <b>05000</b>

<b>9. OPERATING MODE</b> 1	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §:</b> <i>(Check all that apply)</i>									
<b>10. POWER LEVEL</b> 100	<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 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)						
	<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 checked="" type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER							
<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A							

**12. LICENSEE CONTACT FOR THIS LER**

<b>FACILITY NAME</b> Mot Hedges	<b>TELEPHONE NUMBER (Include Area Code)</b> 509-377-8277
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**13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

<b>14. SUPPLEMENTAL REPORT EXPECTED</b> <input type="checkbox"/> YES <i>(If yes, complete 15. EXPECTED SUBMISSION DATE)</i> <input checked="" type="checkbox"/> NO	<b>15. EXPECTED SUBMISSION DATE</b>	MONTH	DAY	YEAR
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**ABSTRACT** *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On December 30, 2012, Columbia was operating at 100% power with all safety systems operable. At 0530 PST both doors of the 471 elevation airlock entrance of the Reactor Building were simultaneously opened for a short period of time. This was the result of the failure of the interlock between the outer security door R-204, and the inner door R-205.

Having a condition where both doors in a Reactor Building airlock were opened simultaneously while not undergoing a planned evolution for maintenance or surveillance testing, results in an unintended entry into Technical Specification (TS) 3.6.4.1 Secondary Containment due to a failure to satisfy Surveillance Requirement (SR) 3.6.4.1.3. It was determined that this condition resulted in a loss of safety function (Secondary Containment) and was reported to the NRC (Event Notification 48639) at 1245 PST on December 30, 2012.

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CONTINUATION SHEET**

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		2012 - 007 - 00			

**NARRATIVE**

**PLANT CONDITIONS**

Columbia was operating at 100% power with all safety systems operable when this event occurred.

**EVENT DESCRIPTION**

On December 30, 2012, at 0530 PST both doors [EIIS: DR] of the 471 elevation airlock [EIIS: AL] entrance of the Reactor Building [EIIS: NG] were simultaneously opened for a short period of time. This was the result of the failure of the interlock [EIIS: IMEC] between the outer security door R-204, and the inner door R-205. The interlock's mechanical bolt on the outer security door failed to engage allowing the outer security door to be opened when the inner door was already open. A security officer and an equipment operator were involved. They immediately realized the problem, quickly shut the doors, and contacted the main control room. Both doors were simultaneously open for only a few seconds.

Having a condition where both doors in a Reactor Building airlock were opened simultaneously while not undergoing a planned evolution for maintenance or surveillance testing, results in an unintended entry into Technical Specification (TS) 3.6.4.1 Secondary Containment due to a failure to satisfy Surveillance Requirement SR 3.6.4.1.3. SR 3.6.4.1.3 requires verification that each secondary containment access inner door or each secondary containment access outer door in each access opening is closed. It was determined that this condition resulted in a loss of safety function (Secondary Containment) and was reported to the NRC (Event Notification 48639) at 1245 PST on December 30, 2012.

The reactor building is maintained at a negative pressure to minimize potential leakage of radioactivity to the environment. During normal operations, the reactor building ventilation system maintains this negative pressure. During a design basis accident, the Standby Gas Treatment System [EIIS: BH] maintains this negative pressure. This brief opening of the doors had no measurable impact on the reactor building pressure indication.

**IMMEDIATE CORRECTIVE ACTION**

Access through the airlock was restricted by locking the outer security door (R-204) until repairs could be made. The interlock mechanism was repaired the following day.

**CAUSE**

A root cause evaluation of the issue determined that there were two root causes.

First Root Cause (RC1): A legacy design weakness for the Secondary Containment airlock door interlocks allows conditions where both the inner and outer doors can be opened at the same time.

Second Root Cause (RC2): Implementation of TSTF-18-A, Rev 1, at Columbia (November 1998) changed the wording of TS SR Bases 3.6.4.1.2 and SR 3.6.4.1.3, reducing the clarity of the description of conditions that define Secondary Containment operability.

**FURTHER CORRECTIVE ACTION**

1. Evaluate potential alternatives, then process and implement a design change which results in a more reliable door locking device, improve the interlock logic to eliminate current design imperfections, and

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**NARRATIVE**

provide warning to personnel outside the airlock when the airlock is in use.

2. Revise Technical Specification bases for SR 3.6.4.1.2 and SR 3.6.4.1.3 to ensure that the wording clearly identifies that Secondary Containment operability requires that one door in each airlock be closed at all times when Secondary Containment is required.

**ASSESSMENT OF SAFETY CONSEQUENCES**

There was no equipment damage, injuries or dose exposure to station personnel. There was no change in plant status or operating condition and there was no actual risk to the public at any time. There was no impact to public health and safety as the Primary Containment was intact, and Secondary Containment ventilation system maintained the designed negative pressure inside the Reactor Building during the event.

There was a potential significance if there had been an event where the Primary Containment was breached concurrent with a loss of coolant accident or a fuel handling accident such that radioactive materials were released to the Reactor Building. Having both Reactor Building airlock doors open would potentially provide a release path for radioactive materials to enter the external environment.

**SIMILAR EVENTS**

A review of various databases at Columbia found a total of 40 similar events dating back to 1995. Not all of these events resulted in a loss of Secondary Containment. Some of these events occurred during a Mode in which Secondary Containment was not required to be operable. Some were an interlock failure only and both doors were not opened simultaneously.

A review of the NRC Event Notification database found the following similar events:

- Event Notification 45975, 6/3/10 at Monticello
- Event Notification 46155, 8/5/10 at Monticello
- Event Notification 46394, 11/4/10 at Monticello
- Event Notification 48282, 9/6/12 at Quad Cities
- Event Notification 48295, 9/10/12 at Cooper

**ENERGY INDUSTRY IDENTIFICATION SYSTEM (EII) INFORMATION CODES**

EII codes are bracketed [] where applicable in the narrative.