ENERGY NORTHWEST

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February 8, 2012
GO2-12-022

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. 2011-004-00

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2011-004-00 for Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(v)(C) and 10 CFR 50.73(a)(2)(v)(D). The enclosed report discusses items of reportability and corrective actions taken related to an event which occurred December 10, 2011 that caused secondary containment differential pressure to exceed Technical Specification limits for a short period of time due to ice buildup and subsequent release from reactor building air filters.

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,

BJ Sawatzke
Vice President, Nuclear Generation & Chief Nuclear Officer

Attachment: Licensee Event Report 2011-004-00

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

IE22
NRR

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION
(10-2010)

APPROVED BY OMB NO. 3150-0104 EXPIRES 10/31/2013

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 infocollects.resource@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.

LICENSEE EVENT REPORT (LER)

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

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4. TITLE

Secondary Containment Low Differential Pressure due to Ice Buildup

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 05000
12	10	2011	2011	– 004	– 00	02	08	2012	FACILITY NAME	DOCKET NUMBER 05000

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)
- ☐ 20.2201(d)
- ☐ 20.2203 (a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☒ 50.73(a)(2)(v)(C)
- ☒ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Richard M Garcia, Principal Licensing Engineer	509-377-8463

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

14. SUPPLEMENTAL REPORT EXPECTED

☐ **YES** *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ **NO**

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On 12/10/11, secondary containment was declared inoperable due to differential pressure exceeding technical specification allowable limits for a period of approximately two minutes. While technical specification limits were exceeded the resulting excursion was bounded by analytical results and thus there were no safety consequences for this event. The cause for the event was determined to be ice buildup and subsequent release on exterior air filters supplying the reactor building HVAC system. Corrective actions will enhance standard operating procedures for cold weather operations to lower the threshold at which positive steps are taken to mitigate potential for icing on filters.

NARRATIVE

Plant Conditions

At the time of the event, the plant was in Mode 1 and 100 percent power. There were no structures, systems, or components that were inoperable at the start of the event that contributed to the event. Reactor building exhaust [VL] was in a normal alignment with REA-FN-1A, one of two 100 percent capacity exhaust fans [FAN], running with REA-FN-1B in standby condition. Reactor building exhaust filters [FLT] had been observed to be icing over due to adverse environmental conditions (the area had been under a deep freeze since 12/8/11 and humidity was approximately 90 percent for this same time period) and steps had been taken to monitor the filters and advance roll filters on a more frequent basis.

Event Description

The control room received a high secondary containment differential pressure alarm on 12/10/11 at 04:43. The pressure excursion resulted in a peak pressure of approximately 0.03 inches water gauge and an unplanned entry into LCO 3.6.4.1A. In response to the alarm, Operations swapped from REA-FN-1A and ROA-FN-1A to REA-FN-1B and ROA-FN-1B. Reactor Exhaust Air (REA) Differential Pressure (DP) controller [VA], REA-DPIC-1A was then able to maintain Reactor Building pressure below the Technical Specification (TS) limit of -0.25 inches water gauge after two minutes, as designed.

This event is reportable as an event that could have prevented fulfillment of a safety function needed to control the release of radiation and mitigate the consequences of an accident per 10 CFR 50.73(a)(2)(v)(C) & 10 CFR 50.73(a)(2)(v)(D). A 10 CFR 50.72(b)(3)(v)(C) and 10 CFR 50.72(b)(3)(v)(D) notification was made via Event Number 47516. Note that the original Event Notification incorrectly listed the event time as 04:56, review of plant data after the fact confirmed the actual time the TS limit was exceeded was 04:43.

Immediate Corrective Actions

The shift manager authorized a verbal procedure change to SOP-COLDWEATHER-OPS to allow for cutting of the roll filter of Reactor Building Outside Air (ROA) during extreme cold conditions when it was recognized that existing guidance in the procedure was insufficient to counter the ongoing conditions.

Assessment of Safety Consequences

This event resulted in an unplanned entry into LCO 3.6.4.1A. Containment pressure was above -0.25 inches water gauge for approximately two minutes. The actual pressure response of secondary containment [NH] during this event was bounded by existing drawdown and dose analyses and thus there are no actual safety consequences to this event.

Cause of Event

The DP decrease was caused by buildup and subsequent release of ice on the ROA filter and bird screen allowing an increased amount of air to be pulled into the Reactor Building [NG] in a short amount of time. The resulting rapid pressure transient was on a time scale shorter than that which the flow controllers [TC] could respond.

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NARRATIVE

Similar Events

A search of corrective action documents back to 2004 revealed only two instances of noted icing on outside air filters. Both events occurred in December 2008, but neither resulted in exceeding TS allowable differential pressure on secondary containment.

Further Corrective Actions

Additional corrective actions will formalize enhancements to SOP-COLDWEATHER-OPS made as immediate corrective actions as well as to include precautions about conditions of high humidity and low temperatures and to lower the threshold for advancing roll filters with observed icing.

Energy Industry Identification System (EIIS) Information codes from IEEE Standards 805-1984 and 803-1983 are represented in brackets as [XX] and [XXX] throughout the body of the narrative.