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August 1, 2013
GO2-13-109

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. 2013-003-00

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2013-003-00 for Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(i)(B).

There are no commitments being made to the NRC by this letter. If you have any questions or require additional information, please contact Mr. J. R. Trautvetter, Regulatory Compliance Supervisor, at (509) 377-4337.

Respectfully,

W. G. Hettel
Vice President, Operations

Enclosure: Licensee Event Report 2013-003-00

cc: NRC Region IV Administrator
NRC NRR Project Manager
NRC Senior Resident Inspector/988C
A. J. Rapacz – BPA/1399
W.A. 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)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Columbia Generating Station	05000397	1 OF 3

4. TITLE

Operation Prohibited by Technical Specifications due to Valve Leakage

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
06	03	2013	2013 – 003 – 00			08	01	2013	FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE
5

10. POWER LEVEL
0

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203 (a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☒ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Lisa Williams, Licensing Supervisor	(509) 377-8148

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	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☒ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☐ NO		10	16	2013

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

On June 3, 2013, with Columbia Generating Station in a planned refueling outage and the reactor cavity flooded up (Mode 5), leakage past a closed isolation valve associated with one hydraulic control unit on the control rod drive system was observed through a drain line. This leakage originated from the reactor vessel and constituted an operation with the potential to drain the reactor vessel (OPDRV). When the leakage was initially identified, it was not recognized as an OPDRV. The leakage rate was estimated to be less than 10 gallons per hour. This leakage persisted for 16 hours until the maintenance activities were completed. During this time period, the secondary containment was inoperable. Technical Specifications (TS) require that with secondary containment inoperable during OPDRV activities, action must be initiated immediately to suspend OPDRVs. Contrary to this requirement, action was not taken to suspend the OPDRV. This represents a condition prohibited by TS. The cause of this event was inadequate procedure guidance for actions to take when unexpected OPDRV conditions are encountered. Immediate corrective actions were taken to establish expectations regarding the appropriate actions to take for discovered unplanned OPDRV conditions. This event is not safety significant since the leakage rate was so small that there was no measurable loss of level in the reactor cavity.

NARRATIVE

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

Introduction

Initial Conditions

At the time of the event, Columbia Generating Station (Columbia) was in Mode 5, at 0 percent of rated thermal power. The preferred source of offsite power from the 230 kV source through the startup transformer [XMFR] was inoperable. The Division 2 emergency diesel generator system [EK] was inoperable. The Division 2 emergency core cooling systems (ECCS) consisting of two trains of low pressure coolant injection (LPCI) [BO] were inoperable. The Division 1 emergency diesel generator and ECCS, consisting of one LPCI train and the low pressure core spray system [BM], were operable and protected.

Reportability Criteria

Secondary containment [NG] operability was not maintained during an operation with a potential to drain the reactor vessel (OPDRV) activity and Required Action C.1 of Technical Specification (TS) 3.6.4.1 to immediately initiate actions to suspend OPDRV activities was not completed. This condition is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as an operation prohibited by the plant's TS.

Event Description

On June 3, 2013, with Columbia in a planned refueling outage and the reactor cavity flooded up (Mode 5), leakage past a closed isolation valve associated with one hydraulic control unit [HCU] on the control rod drive system [AA] was observed through a drain line. This leakage originated from the reactor vessel and constituted an operation with the potential to drain the reactor vessel (OPDRV). When the leakage was initially identified, it was not recognized as an OPDRV. The leakage rate was estimated to be less than 10 gallons per hour. This leakage persisted for 16 hours on June 3, 2013, from 0405 hours to 1955 hours until the maintenance activities were completed and the drain line was isolated. The leakage was observed by Engineering personnel conducting a field walk down of the control rod drive system. A subsequent review of the issue by Licensing personnel determined that, although the leakage was minimal, it constituted an OPDRV under the plain language definition provided by Enforcement Guidance Memorandum (EGM) 11-003, "Enforcement Guidance Memorandum on Dispositioning Boiling Water Reactor Licensee Noncompliance with Technical Specification Requirements during Operations with a Potential for Draining the Reactor Vessel," dated October 4, 2011.

Event Cause

The cause determination is still in progress. The preliminary cause of this event is attributed to inadequate procedure guidance for actions to take when unexpected OPDRV conditions are encountered. The TS require that actions be initiated immediately to suspend the OPDRV activity. In this case, upon discovery of the leakage, the maintenance activity should have been stopped and a determination undertaken to identify the necessary actions to isolate the leakage while still preserving equipment and personnel safety. A supplement to this licensee event report will be submitted if the final cause determination is substantively different from the initial cause determination.

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NARRATIVE

Safety Assessment

The safety significance of this event is considered to be negligible. At the time of the event, Columbia was in Mode 5 with the reactor cavity flooded up. The leakage rate was small, on the order of 10 gallons per hour. Approximately 500,000 gallons of water are added to flood up the reactor cavity; thus, this amount of water would be available to drain prior to reaching the top of active fuel. Additionally, the makeup capability of the ECCS far exceeded the observed leakage rate.

Corrective Actions

The following corrective actions were completed: A Night Order was issued to identify that when CRD-V-126/2635 [V] is open, the known leakage past CRD-V-101/2635 requires this configuration be considered an OPDRV. Additionally, the Night Order reinforced the expectation that upon notification that leakage has been discovered that may constitute an OPDRV, action must be commenced immediately to allow isolation of the drain path in order to satisfy the TS requirements. These actions must be done in a controlled manner to ensure industrial, radiological, and nuclear safety is not jeopardized.

The corrective action plan is still being developed. The preliminary plan will revise procedure PPM 3.4.1 to incorporate the expectations from the Night Order. A supplement to this licensee event report will be submitted if the final corrective action plan is substantively different than that included here.

Previous Similar Events

During the refueling outage that was in progress during this event, a number of evolutions were properly classified as OPDRVs using the guidance in EGM 11-003. For these planned evolutions, the TS requirements were met. There are no previous similar events involving unplanned OPDRV activities.