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August 1, 2013
GO2-13-110

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. 2013-004-00

Dear Sir or Madam:

Transmitted herewith is Licensee Event Report No. 2013-004-00 for Columbia Generating Station. This report is submitted pursuant to 10 CFR 50.73(a)(2)(i)(B) and 50.73(a)(2)(v)(D).

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 2013-004-00

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)

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4. TITLE

Jumper makes Suppression Pool Spray Valve RemoteTransfer Switch inoperable

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	04	2013	2013	– 004 –	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)*
Diego Suarez	509-377-8652

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		9	20	2013

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

When performing a logic system functional test (LSFT) of the Remote Shutdown Panel transfer switch [JS] during refueling outage R21 on June 4, 2013, the procedure for testing the remote transfer switch for the suppression pool spray valve [ISV] failed because a jumper [57] had been left installed following a new bucket (breaker) installation at the Motor Control Center [MCC] during the previous refueling outage R20. A satisfactory LSFT was performed prior to the installation of the new bucket into the MCC but this LSFT was not re-performed to verify the operability of the new bucket after installation. The problem went undetected until the R21 LSFT test failed. The remote transfer switch was inoperable from May 16, 2011 until June 4, 2013 when the condition was discovered. This resulted in failure to meet Surveillance Requirement (SR) 3.3.3.2.4 and non-compliance with Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.3.3.2.

The preliminary apparent causes have been identified as: (1) a lack of a standard for Work Order instructions involving the removal and installation of jumpers, resulting in personnel having to rely on experience and skill of the craft for the proper way of executing and documenting required modifications; and (2) inadequate decision making resulting in the use of a post maintenance testing procedure after the installation of the Spectrum bucket in May 2011 that did not adequately prove operability.

NARRATIVE

PLANT CONDITIONS

The event was discovered June 4, 2013 when a logic system functional test (LSFT) of the Suppression Pool Remote Transfer Switch [JS] failed. The plant was in Mode 5 during refueling outage R21 with the reactor mode switch in Refuel.

EVENT DESCRIPTION

On 6/04/2013, during performance of surveillance procedure on the control power transfer switch [JS] located in the Remote Shutdown Panel, a step to verify no continuity (contacts open) for the transfer switch for the suppression pool spray valve RHR-V-27B [ISV] failed. Failure of the surveillance was attributed to a jumper [57] installed (as-found) in 480V Motor Control Center [MCC] starter controls contained in the new bucket. The jumper had been left in place since refueling outage R20 when the Spectrum bucket (breaker) was installed on May 16, 2011. The transfer switch was, therefore, inoperable since the jumper was left in place, because Surveillance Requirement 3.3.3.2.4 under Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.3.3.2, The Remote Shutdown System Functions Shall Be Operable, would not have been met when in Modes 1 or 2.

IMMEDIATE CORRECTIVE ACTION

The jumper was removed and the loosened terminals were torqued to restore bucket to design configuration.

CAUSE

The Cause Evaluation identified preliminary apparent causes of this event as follows: (1) a lack of a standard for Work Order instructions involving removal and installation of jumpers, which requires personnel to rely on experience and skill of the craft for the proper way of executing and documenting required modifications; and (2) inadequate decision making resulting in the use of a post maintenance testing procedure after the installation of the Spectrum bucket in May 2011 that did not adequately prove operability.

FURTHER CORRECTIVE ACTION

Procedures will be revised to provide additional level of detail for work order steps involving determination and termination of wires, cables and jumpers.

Additional corrective actions are being investigated that may result in additional proposed corrective measures. A supplement to this Licensee Event Report will be submitted if the final corrective action plan is substantively different than that included in this form.

ASSESSMENT OF SAFETY CONSEQUENCES

The remote transfer switch is located at the Remote Shutdown Panel. The switch transfers control of the Division 2 suppression pool spray valve from the Main Control Room to the Remote Shutdown Panel and vice versa. The suppression pool spray valve is used to provide cooling to the wetwell portion of the primary containment as a means to control containment pressure during an accident.

The jumpered terminals in the remote shutdown transfer switch did not impact the operation of the suppression pool spray valve from the Main Control Room.

With the jumper left in place the operation of the suppression pool spray valve could be impacted from the Remote Shutdown Panel because of loss of starter control power for valve RHR-V-27B under some abnormal scenarios (i.e., fire in the Main Control Room), which would require the replacement of a blown fuse prior to being able to operate the valve from the Remote Shutdown Panel. However, the normal position for this valve is closed and it would not normally be

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NARRATIVE

operated from the Remote Shutdown Panel in the event of a fire in the Control Room. Therefore the safety significance of this failure is low.

SIMILAR EVENTS

There are several documented conditions with similar circumstances involving improper removal or installation of jumpers. However, they were due to improper placement or removal of jumpers and did not involve jumpers being left in for an extended period of time.

ENERGY INDUSTRY IDENTIFICATION SYSTEM (eiis) INFORMATION CODES

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