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RBG-47588

July 9, 2015

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Subject: Licensee Event Report 50-458 / 2015-003-00
River Bend Station – Unit 1
Docket No. 50-458
License No. NPF-47

RBF1-15-0102

Dear Sir or Madam:

In accordance with 10 CFR 50.73, enclosed is the subject Licensee Event Report. This document contains no commitments. If you have any questions, please contact Mr. Joseph Clark at 225-381-4177.

Sincerely,

A handwritten signature in cursive script, appearing to read "Eric W. Olson".

EWO/dhw

Enclosure

cc: U. S. Nuclear Regulatory Commission
Region IV
1600 East Lamar Blvd.
Arlington, TX 76011-4511

NRC Sr. Resident Inspector
P. O. Box 1050
St. Francisville, LA 70775

1 E22
NRR



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INPO
(via ICES reporting)

Central Records Clerk
Public Utility Commission of Texas
1701 N. Congress Ave.
Austin, TX 78711-3326

Department of Environmental Quality
Office of Environmental Compliance
Radiological Emergency Planning and Response Section
Ji Young Wiley
P.O. Box 4312
Baton Rouge, LA 70821-4312

**LICENSEE EVENT REPORT (LER)**(See Page 2 for required number of
digits/characters for each block)

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 and Information Collections Branch (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.

1. FACILITY NAME

River Bend Station - Unit 1

2. DOCKET NUMBER

05000 458

3. PAGE

1 OF 3

4. TITLE

Operations Prohibited by Technical Specifications and Loss of Safety Function Due to Inoperability of Division 2 Containment Penetration Leakage Control System

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
5	14	2015	2015	003	00	07	09	2015	FACILITY NAME	DOCKET NUMBER
										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 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)		
10. POWER LEVEL 100			<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 checked="" type="checkbox"/> 50.73(a)(2)(i)(B)		<input type="checkbox"/> 50.73(a)(2)(v)(D)		Specify in Abstract below or in NRC Form 366A		

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT

Joseph A. Clark, Manager - Regulatory Assurance

TELEPHONE NUMBER (Include Area Code)

(225) 381-4177

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
n/a									

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 May 14, 2015, with the plant operating at 100 percent power, a manual valve in the Division 2 penetration valve leakage control (LSV) subsystem was found out of position. Subsequent investigation concluded that this condition had existed since before the plant was started up from a refueling outage on March 26, 2015, causing that subsystem to be inoperable for a period greater than the 30-day allowable outage time in Technical Specifications. The valve (SWP-V912) is in the service water supply to the air compressor on that skid. The mispositioning of the valve was caused by an error in equipment configuration control. Additionally, the investigation determined that, during the intervening period, there were two short planned outages of the Division 1 subsystem. This condition is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications, as well as 10 CFR 50.73(a)(2)(v)(C) as a loss of the LSV safety function during those periods when the Division 1 subsystem was out of service. The two periods during which the Division 1 LSV subsystem was inoperable totaled approximately 7.5 hours. Otherwise, it was capable at all other times to perform the design safety function. At no time during the period from plant startup on March 26 until the Division 2 subsystem was restored to an operable status was there an actual demand for the system to operate. This event was thus of minimal significance to the health and safety of the public.

**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

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 and Information Collections Branch (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.

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NARRATIVE**REPORTED CONDITION**

On May 14, 2015, with the plant operating at 100 percent power, a manual valve (**V**) in the Division 2 penetration valve leakage control (LSV) (BD) subsystem was found out of position. Subsequent investigation concluded that this condition had existed since before the plant was started up from a refueling outage on March 26, 2015, causing that subsystem to be inoperable for a period greater than the 30-day allowable outage time in Technical Specifications.

The valve (SWP-V912) is in the service water supply to the air compressor (**CMP**) on that skid. The mispositioning of the valve was caused by an error in equipment configuration control, as described below. Additionally, the investigation determined that during the intervening period, there were two short planned outages of the Division 1 LSV subsystem.

This condition is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications, and with 10 CFR 50.73(a)(2)(v)(C) as a loss of the safety function of the LSV system during those periods when the Division 1 subsystem was out of service.

INVESTIGATION AND IMMEDIATE CORRECTIVE ACTIONS

On May 14, while installing a clearance tagout on the Division 2 LSV skid, the operators found SWP-V912 fully closed and locked. The required position is two turns open and locked. The valve was initially closed on February 26 during a refueling outage. A "caution" tag was put on the valve for configuration control, and this action was documented in the Limiting Condition for Operation (LCO) tracking system. When the associated work was completed, the valve was returned to its required position and the LCO entry was cleared. During the intervening period, the Division 2 service water system had been drained for maintenance.

On March 5, while the Division 2 service water system was being refilled, water was found coming from the inlet piping of the Division 2 LSV compressor. Although this condition was an expected consequence of an ongoing electrical bus outage that caused a service water flow control valve on the skid to fail open, operators took the initiative to close SWP-V912 to isolate the service water supply and stop the leakage. An entry was made for this action in the main control room logs, but no entry was made in the LCO tracking system. Approximately three days later, the operator who had originally restored the valve position was reviewing the main control room logs, and saw the entry for the closure of the service water isolation valves. The operator believed this entry referred to the first closure earlier in the outage and assumed that the log entry could be closed, since he had restored the valves to the required position. He then cleared the log entry without verifying the valve positions.

Before plant startup from the outage, the Division 2 LSV compressor was run on March 25 for a scheduled surveillance test. The test required the compressor to be operated for 15 minutes under load. Computer data reviewed for this investigation found that, unknown to the operators, the compressor automatically stopped after running for approximately 5 minutes. It has been determined that two anomalous conditions led the operators at the time to nevertheless declare the surveillance test successful:

(1) In 2011, performance problems with the Division 2 subsystem were being investigated. As a consequence of actions taken then, the circuitry for a compressor "trouble" alarm was altered such that the alarm annunciated during the compressor start sequence, which was a change from past operations. The presence of this alarm with the compressor operating masks any subsequent automatic trip signal.

**LICENSEE EVENT REPORT (LER)
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NARRATIVE

(2) The sequence of the surveillance procedure steps for securing the compressor directs the operator to input a "stop" signal and then verify the indicating lights show the compressor has tripped. Due to the physical layout of the control panel indications, the operator performing the action must move to a different panel to view the indicating lights after initiating the "stop" signal.

These two conditions contributed to the failure of the operators to realize that the compressor had tripped early. This precluded the discovery that the compressor was not operating correctly during the test on March 25. A subsequent test in April yielded similar results. A test run on May 4 was to include the collection of vibration data on the compressor. With the service water isolated, the compressor again tripped early due to high temperature on the air discharge header. Personnel at the scene reported this condition to the main control room operator.

SWP-V912 was properly positioned on May 15 and the subsystem has since demonstrated proper operation.

APPARENT CAUSE

This event was caused by the failure of the operator to enter the valve closure of March 5 into the LCO tracking system.

CORRECTIVE ACTIONS to PREVENT RECURRENCE

The procedure for the monthly surveillance test of the LSV compressors was revised to clarify the steps for verification of proper equipment operation. Detailed human performance evaluations were performed for the operators involved.

PRIOR OCCURRENCE EVALUATION

No similar events have been reported by River Bend Station in the past three years.

SAFETY SIGNIFICANCE

The two periods during which the Division 1 LSV subsystem was inoperable totaled approximately 7.5 hours. Otherwise, it was capable at all other times to perform the design safety function. At no time during the period from plant startup on March 26 until the Division 2 subsystem was restored to operable status was there an actual demand for the system to operate. This event was thus of minimal significance to the health and safety of the public.

(NOTE: Energy Industry Component Identification codes are annotated as (**XX**).)