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David N. Lorfing Manager-Licensing

RBG-47138

April 14, 2011

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

Subject:

Licensee Event Report 50-458 / 11-002-00

River Bend Station - Unit 1

Docket No. 50-458 License No. NPF-47

File No.

G9.5

RBF1-11-0063

Dear Sir or Madam:

In accordance with 10CFR50.73, enclosed is the subject Licensee Event Report. This document contains no commitments. If you have any questions, please contact me at 225-381-4157.

Sincerely,

David N. Lorfing,

Manager - Licensing

Enclosure

I Eag Mul Licensee Event Report 50-458 / 11-002-00 April 14, 2011 RBG-47138 RBF1-11-0063 Page 2 of 2

cc: U. S. Nuclear Regulatory Commission Region IV 612 East Lamar Blvd., Suite 400 Arlington, TX 76011-4125

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

INPO Records Center E-Mail (MS Word format)

Mr. Jim Calloway Public Utility Commission of Texas 1701 N. Congress Ave. Austin, TX 78711-3326

Mr. Jeffrey P. Meyers Louisiana Department of Environmental Quality Attn: OEC-ERSD P.O. Box 4312 Baton Rouge, LA 70821-4312

NRC FORM 366			U.S. NUCLEAR REGULATORY COMMISSION						APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013						
(10-2010)  LICENSEE EVENT REPORT (LER)  (See reverse 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 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.						
1. FACILITY NAME River Bend Station – Unit 1									2. DOCKET NUMBER 05000 - 458			3. PAGE 1 OF 3			
4. TITLE	4. TITLE Operations Prohibited by Technical Specifications Due to Instrument Isolation Valve Mispositioning														
	VENT DA			6. LER NUMBER				7. REPORT DATE			8. OTHER FACILITIES INVOLVED				
MONTH	DAY	YEAR	YEAR	SEQUE NUME			MONTH	DAY	YEAR	FACILITY NA				NUMBER	
02	13	2011		2011-002-00 04 14						FACILITY N	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	·	□ 20.2201(b)       □ 20.2203(a)(3)(i)         □ 20.2201(d)       □ 20.2203(a)(3)(ii)         □ 20.2203(a)(1)       □ 20.2203(a)(4)         □ 20.2203(a)(2)(i)       □ 50.36(c)(1)(i)(A					a)(3)(i) a)(3)(ii) a)(4)		□ 50.73(a)(2)(i)(C) □ 50.73(a)(2) □ 50.73(a)(2)(ii)(A) □ 50.73(a)(2) □ 50.73(a)(2)(ii)(B) □ 50.73(a)(2) □ 50.73(a)(2)(iii) □ 50.73(a)(2)			3(a)(2)( 3(a)(2)( 3(a)(2)(	vii) viii)(A) viii)(B)	
10. POWER LEVEL			□ 20.2203(a)(2)(ii)       □ 50.36(c)(1)(ii)(A)         □ 20.2203(a)(2)(iii)       □ 50.36(c)(2)         □ 20.2203(a)(2)(iv)       □ 50.46(a)(3)(ii)         □ 20.2203(a)(2)(v)       □ 50.73(a)(2)(i)(A)						□ 50.73(a)(2)(iv)(A)       □ 50.73(a)(2)(x)         □ 50.73(a)(2)(v)(A)       □ 73.71(a)(4)         □ 50.73(a)(2)(v)(B)       □ 73.71(a)(5)         □ 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. LIC	ENSEE CON	ITACT	FOR THIS	LER		<b>U</b>			
12. LICENSEE CONTACT FOR THIS LER  FACILITY NAME David N. Lorfing, Manager – Licensing  12. LICENSEE CONTACT FOR THIS LER  TELEPHONE NUMBER (Include Area Code) 225-381-4157														Code)	
		1	3. COMP	LETE ON	VE LINE	FOR E	ACH COMP	ONENT	FAILUR	DESCRIBE	D IN THIS R	EPORT			
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n/a															
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)															
On February 13, 2011, at approximately 5:00 a.m. CST, during power ascent following a refueling outage, operators found that one channel of main turbine first stage pressure instrumentation was not responding to changing plant parameters. This instrument provides a permissive to the reactor protection system (RPS) to enable a reactor scram signal from main turbine control valve control valve fast closure and main turbine stop valve closure. Also enabled by that permissive is a reactor recirculation pump trip signal initiated by the main turbine stop valve closure. While performing the initial troubleshooting, a maintenance technician discovered that a valve at the affected steam pressure transmitter was closed, isolating it from the system. This valve had apparently been left closed following the calibration of the instrument during the outage. The valve was opened,															
pre had	ssure to	ransmitt ded 40	er are re percent	equired at appr	to be o	operately 3:2	ole when re 24 a.m. tha	eactor at day.	power This e	s greater t	he signals han 40 per ng reporte 3).	cent. Rea	ctor p	ower	

U.S. NUCLEAR REGULATORY COMMISSION NRC FORM 366A LICENSEE EVENT REPORT (LER) (10-2010) **CONTINUATION SHEET** 1. FACILITY NAME 2. DOCKET 6. LER NUMBER 3. PAGE YEAR **SEQUENTIAL** REV. River Bend Station - Unit 1 NUMBER 2 OF 3 05000 -458 2011 -- 002 -- 00

# REPORTED CONDITION

On February 13, 2011, at approximately 5:00 a.m. CST, during power ascent following a refueling outage, operators found that one of four redundant channels of main turbine first stage pressure instrumentation was not responding to changing plant parameters. This instrument (\*\*PT\*\*) provides a permissive to the reactor protection system (RPS) (JC) to enable a reactor scram signal from main turbine control valve control valve fast closure and main turbine stop valve closure. Also enabled by that permissive is a reactor recirculation pump trip signal initiated by the main turbine stop valve closure.

Operators initiated a work order and initiated the appropriate Technical Specification required actions. While performing the initial troubleshooting, a maintenance technician discovered that a valve (\*\*V\*\*) at the affected steam pressure transmitter was closed, isolating it from the system. The valve was opened, and the pressure transmitter was returned to service. The instrumentation channel was declared operable at 5:52 p.m. that day.

The reactor scram and reactor recirculation pump trip signals enabled by this pressure transmitter are required to be operable when reactor power is greater than 40 percent. Reactor power had exceeded 40 percent at approximately 3:24 a.m. that day. The inoperability of the "D" RPS instrument channel at the time that its condition of applicability was met constitutes operations prohibited by Technical Specifications, and is being reported in accordance with 10CFR50.73(a)(2)(i)(B).

### INVESTIGATION and CAUSAL ANALYSIS

The investigation of this event found that the affected main turbine first stage pressure transmitter had been calibrated during the outage. A search of other documentation related to danger tagging, system valve alignment checks, etc., found no other opportunity for the positioning of this valve.

While the work package for the calibration indicates that the valve had been verified open at the completion of the activity, it is apparent that the valve was actually left closed. The technicians who performed the calibration recalled nothing out of the ordinary about restoring the instrument to service. The apparent cause of this event was inadequate self-checking on the part of the technicians. A potential contributing factor is the unusual number designations for the transmitter isolation and test valves that are different than other similar instruments. Additionally, the calibration procedure addressed the valve by its noun name only, without reference to its mark number.

## PREVIOUS OCCURRENCE EVALUATION

No similar events have been reported by River Bend Station in the last five years.

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### CORRECTIVE ACTION TO PREVENT RECURRENCE

The following actions are being documented in the station's corrective action program:

- A memorandum was distributed across the site to make personnel aware of the event, and highlight the breakdowns in human performance that caused it.
- The affected calibration procedure (and the procedures for the redundant channels) will be revised to add instrument mark numbers to the instructions.
- The integrated plant startup procedure has been revised to require the operator to check that this instrumentation is operating properly prior to exceeding 40 percent power.

## SAFETY SIGNIFICANCE

The mispositioned valve affected only the "D" main turbine first stage pressure instrument and its associated channel. The logic circuit designs of the RPS system and the reactor recirculation pump trip system are such that the other three redundant channels of main turbine control valve control valve fast closure and main turbine stop valve closure instruments would have caused a reactor scram and/or a recirculation pump trip had such an actual event occurred while the "D" channel was inoperable. Thus, this event was of minimal significance to the health and safety of the public.

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