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July 26, 2006

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

Subject: Licensee Event Report 50-458 / 06-006-00
River Bend Station – Unit 1
Docket No. 50-458
License No. NPF-47

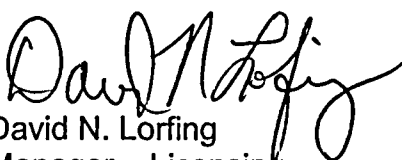
File Nos. G9.5, G9.25.1.3

RBG-46601
RBF1-06-0120

Ladies and Gentlemen:

In accordance with 10CFR50.73, enclosed is the subject Licensee Event Report.
This document contains no commitments.

Sincerely,


David N. Lorfing
Manager – Licensing

DNL/dhw
Enclosure

IE22

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cc: U. S. Nuclear Regulatory Commission
Region IV
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Arlington, TX 76011

NRC Sr. Resident Inspector
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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: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 5
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4. TITLE
Plant Mode Change with One Offsite Power Supply Inoperable Due to 4.16kv Breaker Alignment

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
05	27	2006	2006	- 006 -	00	07	26	2006	FACILITY NAME	DOCKET NUMBER 05000
									FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE
1

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

10. POWER LEVEL 100	<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)
	<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 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

FACILITY NAME David N. Lorfing, Manager – Licensing	TELEPHONE NUMBER (Include Area Code) 225-381-4157
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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 May 27, 2006, while the unit was operating at 100 percent power, the determination was made that one of the required offsite power supplies to the Division 3 standby switchgear had been inoperable during the recent plant startup on May 13, 2006. A 4160 volt circuit breaker in one of the power supplies to Division 3 was not functional at the time of the plant startup. This condition does not meet the requirements of Technical Specifications Limiting Condition for Operation 3.0.4. In addition, during the investigation, it was determined that the surveillance test procedure that implements Surveillance Requirement 3.8.1.1 did not include the verification of the alignment of the offsite power supplies to Division 3. A similar condition was also found to exist for Surveillance Requirement 3.8.1.8. These conditions are being reported in accordance with 10CFR50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications. The circuit breaker was subsequently repaired and demonstrated to be functional. The Division 3 emergency diesel generator is the safety-related power source for the Division 3 switchgear, and it was operable at the time this condition was discovered. Therefore, this condition was of minimal safety significance.

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REPORTED CONDITION

On May 27, 2006, while the unit was operating at 100 percent power, the determination was made that one of the required offsite power supplies to the Division 3 standby switchgear (EB) had been inoperable during the recent plant startup on May 13. A 4160 volt circuit breaker (**52**) in this offsite power supply to Division 3 was not functional at the time of the plant startup. This condition does not meet the requirements of Technical Specifications Limiting Condition for Operation (LCO) 3.0.4. This LCO requires that this power supply be operable during a plant startup.

In addition, during the investigation, it was determined that the surveillance test procedure (STP) that implements Surveillance Requirement (SR) 3.8.1.1 did not include the verification of the alignment of the offsite power supplies to Division 3. A similar condition was also found to exist for SR 3.8.1.8. SR 3.8.1.8 requires verification of the capability to transfer from one offsite power supply to the alternate. These conditions are being reported in accordance with 10CFR50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications.

INVESTIGATION

River Bend Technical Specifications require that "two qualified circuits between the offsite transmission network and the onsite Class 1E AC electric power distribution system..." shall be operable (Limiting Condition for Operations 3.8.1). The basis section for LCO 3.8.1 states that, in part, that "Each offsite circuit consists of incoming breakers and disconnects to the respective preferred station service transformers 1C and 1D, the 1C and 1D preferred station service transformers, and the respective circuit path including feeder breakers to the three 4.16 kV ESF buses." Surveillance Requirement (SR) 3.8.1.1 requires a weekly verification of the "...correct breaker alignment and indicated power availability for each required offsite circuit." Surveillance Requirement 3.8.1.8 has a specified frequency of 18 months, and verifies "manual transfer of unit power supply from the normal offsite circuit to required alternate offsite circuit."

The Division 3 switchgear is provided with two separate, independent sources of offsite power, in addition to its dedicated diesel generator (DG). When the plant is operating, the switchgear may be supplied from "station service" transformers that are energized by the main generator. Alternatively, the switchgear may be supplied at any time from offsite power via either of two dedicated 230kv lines running from the plant's switchyard into the "preferred transformers" in the plant. These two offsite power sources are required to be operable by the station's Technical Specifications, and are the sources to which the switchgear is normally aligned. In the case of the Division 3 switchgear, the power from the preferred transformers is routed through two non-safety related 4160 volt switchgears inside the plant. This is a different design than Divisions 1 and 2, which are powered directly from the preferred transformers.

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During the refueling outage that ended on May 13, circuit breaker NNS-ACB23 (hereafter referred to as "ACB23"), in one of the circuits supplying Division 3, was removed from service for maintenance. Following this activity, the breaker was racked back into the "connect" position in its cubicle on April 29, and left in the open position. On May 9, during an operator's control panel walkdown in the main control room, it was identified that the white "control power" light for ACB23 was not illuminated as was expected. A maintenance work order was initiated. The person performing the operability evaluation of that work order concluded that, since the breaker is not safety-related and not subject to surveillance testing, it was not necessary to resolve the deficiency prior to plant startup. Thus, the breaker was not listed on any tracking mechanism requiring that repairs be performed prior to startup. The generic Operations procedure on breaker racking did not specify a verification that the control power light illuminates when racking that breaker into the "connect" position on April 29, because not all breakers in the plant are configured such that control power is activated simply by racking the breaker in.

On May 22, during preparations for a scheduled surveillance test for the Division 3 DG, an attempt was made to close ACB23. The breaker did not appear to cycle, and the yellow "tripped" light illuminated at the breaker control switch. It was not recognized by the operators at the time, but one of the permissive signals necessary to close the breaker was not present. (The next breaker upstream was not closed.) The breaker was then racked out and back in to verify the integrity of the "connect" position. It was reported that the racking mechanism was unusually difficult to operate. Another attempt was then made to close the breaker. The breaker did appear to cycle, but again tripped. Further inspection by maintenance technicians found that the racking mechanism could be rotated approximately one more turn (at which point the control power light illuminated), leading to the conclusion that the breaker likely had not been fully racked in. The upstream breaker was subsequently closed, and ACB23 was successfully placed in service. A Condition Report was initiated to document that the breaker's racking mechanism was difficult to operate.

Since the breaker was not restored to service until after the plant startup on May 13, the requirements of LCO 3.0.4 were not met.

On June 26, a replacement breaker was installed in the ACB23 cubicle, and successfully tested. The breaker that was removed from service was inspected to determine the cause of the malfunction. No misadjustment of the internal mechanisms was found. Operations has since performed four complete racking and breaker closure cycles on the replacement breaker ACB 23 to verify reliable, repeatable performance.

IMMEDIATE CORRECTIVE ACTIONS

Pending the revision of surveillance test procedures to address SR 3.8.1.1, Operations began recording the status of the Division 3 offsite power supply circuits weekly in the Main Control Room logs.

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The breaker operations that occurred during the troubleshooting and repair of ACB23 adequately demonstrated the ability to transfer the Division 3 switchgear from one offsite power source to the other.

CAUSAL ANALYSIS

A historical review of STPs implementing Surveillance Requirements 3.8.1.1 (STP-000-0102) and 3.8.1.8 (STP-302-0601) was conducted. At the initial implementation of the Technical Specification surveillance test program at River Bend, the offsite power supplies to Division 3 were omitted from these test procedures. It appears that the unique configuration of the offsite power supply to Division 3 contributed to a decision that these Surveillance Requirements should not apply to that switchgear.

In February 1998, a Condition Report was initiated concerning the omission of the offsite power supply breakers to Division 3 from the station surveillance program. A review of the Updated Safety Analysis Report, as well as applicable General Design Criteria and Regulatory Guides concluded that the scope of the surveillance program was adequate with regard to offsite power systems. No change was made to the surveillance test program at that time with regard to Division 3 power sources. In retrospect, the disposition of that Condition Report did not adequately address the Technical Specifications.

The lack of surveillance requirements on ACB23 (as well as its associated breakers) contributed to the conclusion on April 29 that the failure of the control power indication was not a constraint on plant startup.

CORRECTIVE ACTION TO PREVENT RECURRENCE

The following actions are planned to prevent recurrence, and are being tracked in the station's corrective action program.

- A detailed review of the implementation of SR 3.8.1.1 and 3.8.1.8 is being conducted to develop recommendations for changes to the affected STPs. This information will be used to revise the STPs for SR 3.8.1.1 and 3.8.1.8.
- The operations procedure for breaker racking will be revised to include requirements to (1) verify indication of control power, and (2) perform a functional test of breakers that support a safety function.
- The Technical Specification Bases will be revised to clarify the applicability of Division 3 to SR 3.8.1.1 and 3.8.1.8.
- Training on this condition will be conducted for the Operations and Licensing staffs.

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PREVIOUS OCCURRENCE

A review of recent reportable events found no other instances of historical omissions in the surveillance testing program.

SAFETY SIGNIFICANCE

During the period following plant startup in which ACB23 was inoperable, the other offsite power supply to Division 3 was functional and in service. At the time of the reported condition, the Division 3 DG was operable, and capable of restoring power to its switchgear in the event of a loss of offsite power.

Divisions 1 and 2 were operable at the time of plant startup, and were available for mitigation of postulated events described in the station's Updated Safety Analysis Report. Therefore, the reported condition was of minimal safety significance.

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