Entergy

Entergy Operations, Inc.
River Bend Station
5485 U. S. Highway 61N
St. Francisville, LA 70775
Fax 225 635 5068

February 17, 2005

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

Subject: River Bend Station – Unit 1
Docket No. 50-458
License No. NPF-47
Licensee Event Report 50-458 / 04-004-01

File Nos. G9.5, G9.25.1.3

RBG-46402
RBF1-05-0027

Ladies and Gentlemen:

In accordance with 10CFR50.73, enclosed is the subject Licensee Event Report. This report supplements the initial report filed on December 28, 2004. There are no commitments in this submittal.

Sincerely,

David N. Lorfing
Manager – Licensing (acting)

DNL/dhw
Enclosure

IE22

cc: U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

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

INPO Records Center
E-Mail

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

Mr. Prosanta Chowdhury
Louisiana Department of Environmental Quality
Office of Environmental Compliance
Surveillance Division
Radiological Emergency Planning & Response Unit
P.O. Box 4312
Baton Rouge, LA 70821-4312

NRC FORM 366 (6-2004) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 06/30/2007

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.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
River Bend Station, Unit 1	05000 458	1 of 4

4. TITLE
Unplanned Automatic Start of Standby Diesel Generator Due to Loss of Division 2 Switchgear

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
11	1	2004	2004	- 004 -	01	2	17	2005	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)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☒ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
David N. Lorfing, Manager – Licensing (acting)	225-381-4157

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
na									

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 November 1, 2004, at approximately 4:44 p.m. CST, the Division 2 emergency diesel generator (DG) automatically started as a result of the loss of the Division 2 4160kv standby switchgear. The switchgear was de-energized as a result of an inadvertent trip signal generated during scheduled testing of the sudden overpressure relay on the preferred station service transformer supplying the switchgear. This event resulted from an inadvertent re-activation of the trip circuits served by the relay being tested. The Division 2 DG started and restored power to the standby switchgear as designed. The Division 2 residual heat removal (RHR) system was operating in the shutdown cooling mode at the time of the event, and was temporarily out of service as a result. Division 2 RHR was restarted approximately 50 minutes after the event. This is being reported in accordance with 10CFR50.73(a)(2)(iv)(A) as an event that caused the automatic actuation of the Division 2 DG. At the time of the event, the plant was in cold shutdown for a refueling outage. This event was of minimal safety significance.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
River Bend Station Unit 1	05000-458	2004	- 004 -	01	2 OF 4

REPORTED CONDITION

On November 1, 2004, at approximately 4:44 p.m. CST, the Division 2 emergency diesel generator (DG) (**DG**) automatically started as a result of the loss of the Division 2 4160kv standby switchgear. The switchgear was de-energized as a result of an inadvertent trip signal generated during scheduled testing of the sudden overpressure relay on the "F" preferred station service transformer. The DG started and restored power to the standby switchgear as designed. At the time of the event, the plant was in cold shutdown for a refueling outage.

The Division 2 residual heat removal (RHR) system was operating in the fuel pool cooling assist mode at the time of the event, and was subsequently out of service for approximately 50 minutes. Bulk coolant temperature had increased approximately 4 degrees F by the time RHR was restored, and the highest measurement remained below 103 degrees F.

Core alterations were in progress at the time of the event, and this activity was suspended while plant systems were restored. The reactor cavity was flooded to greater than 23 feet, thus no emergency core cooling systems were required to be operable.

IMMEDIATE CORRECTIVE ACTIONS

Three assessment teams were assembled to review specific elements of outage activities. All work on Division 1 was suspended pending completion of these reviews.

- Human performance deficiencies occurring thus far in the outage were studied to determine any potential common causes. This review included the work management approval process and supervisory oversight of tasks in the field.

- Ongoing work on all three safety-related divisions was reviewed to verify system configurations, control logic status, and fidelity of control room annunciators.

- Optimum methods for systematically restarting divisional work with a potential for affecting safety-related system configuration were developed, taking into account the recommendations of the other assessment teams.

Supervisors and above were briefed on actions from these reviews and expectations were reinforced prior to recommencing divisional work.

INVESTIGATION AND CAUSAL ANALYSIS

The Reserve Station Service (RSS) No. 2 line includes preferred station service transformers "D" and "F", as well as dedicated 230kv transmission lines leading into the plant from the Fancy Point switchyard. As originally planned, the calibration of the sudden overpressure relay (**RLY**) on "F" transformer was included with other tasks under a clearance order that isolated RSS No. 2 and disabled the trip circuitry served by the relay.

Technicians encountered difficulties that delayed the relay calibration procedure. In the meantime, other work being performed under the clearance order was successfully completed. In order to restore RSS No. 2 to service while accommodating the ongoing relay calibration, the clearance boundary was modified.

During review of the new clearance order, it was not recognized that the trip circuitry of the RSS No. 2 was being reactivated, such that trip signals initiated by the sudden overpressure relay would be in effect. When the clearance order boundary was modified and the calibration procedure was again resumed, the relay was put in the tripped condition. As the trip circuits were now reactivated, the RSS No. 2 shut down, resulting in the loss of voltage to the Division 2 4160 volt standby switchgear. The Division 2 DG actuated as designed.

The root cause of this event was the inadequate management of the change made to the work schedule. The revision of the clearance boundary did not preserve the equipment conditions needed to resume the calibration work.

CORRECTIVE ACTIONS TO PREVENT RECURRENCE

A detailed review of work remaining in the outage for Divisions 2 and 3, as well as offsite power was conducted to assure that equipment configurations required for the work were properly planned.

The Operations department conducted a stand-down and briefings to reinforce the expectations regarding rigor in the release of work packages and assessment effects on the plant of maintenance activities and clearance orders.

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
River Bend Station Unit 1	05000-458	2004	- 004 -	01	4 OF 4

PREVIOUS OCCURRENCE EVALUATION

A review of inadvertent actuations of the standby diesel generators over the last three years found no similar previous events.

SAFETY ANALYSIS

The Division 2 DG started and restored power to the standby switchgear as designed. The reactor cavity was flooded to greater than 23 feet of water at the time of the event, thus no emergency core cooling systems were required to be operable. Bulk coolant temperature increased approximately 4 degrees, and remained below 103 degrees F. This event was of minimal safety significance.

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