



Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61
P. O. Box 220
St. Francisville, LA 70775
Tel 225 336 6225
Fax 225 635 5068

Rick J. King
Director
Nuclear Safety Assurance

November 13, 2000

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

Subject: River Bend Station
Docket No. 50-458
License No. NPF-47
Licensee Event Report 50-458 / 00-015-00

File Nos. G9.5, G9.25.1.3

RBG-45556
RBF1-00-0243

Ladies and Gentlemen:

In accordance with 10CFR50.73, enclosed is the subject Licensee Event Report. The subject event is being reviewed through the corrective action review process.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick J. King".

RJK/dlm
enclosure

IE22

Licensee Event Report 50-458 / 00-015-00
November 13, 2000
RBG-45556
RBF1-00-0243
Page 2 of 2

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
Program Manager – Surveillance Division
Louisiana DEQ
Office of Radiological Emergency Planning and Response
P. O. Box 82215
Baton Rouge, LA 70884-2215

NRC FORM 366
COMMISSION
(6-1998)

U.S. NUCLEAR REGULATORY

APPROVED BY OMB NO. 3150-0104 EXPIRES
06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may

LICENSEE EVENT REPORT (LER)

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

FACILITY NAME (1)

River Bend Station

DOCKET NUMBER (2)

05000-458

PAGE (3)

1 of 3

TITLE (4)

Inadequate Surveillance Test Procedure Results In Failure to Fully Perform Required Surveillance

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MON	DA	YEAR	YEAR	SEQUEN	REVISI	MON	DA	YEAR	FACILITY NAME	DOCKET NUMBER
10	12	2000	2000	015	00	11	13	2000	FACILITY NAME	DOCKET NUMBER
OPERATI MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
POWER		100%	20.2201(b)			20.2203(a)(2)(v)	X		50.73(a)(2)(i)	50.73(a)(2)(viii)
			20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)			50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	below or in NRC

LICENSEE CONTACT FOR THIS LER (12)

NAME

J. W. Leavines, Manager - Licensing

TELEPHONE NUMBER (Include Area Code)

225-381-4642

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONEN T	MANUFACTUR ER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONEN T	MANUFACTUR ER	REPORTABL E TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO	EXPECTED	MON	DAY	YEAR
---	---	----	----------	-----	-----	------

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On October 12, 2000, at 1535 with the plant in Mode 1 (Power Operation) at 100 percent power, a system engineer determined through post-maintenance review of documentation for both emergency diesel generators (EDG) (**DG**) that all diesel start functions were not verified for Logic System Functional Test (LSFT) surveillance purposes during RF-8.

On April 1, 2000, while performing surveillance testing during RF-09, a system engineer questioned the response of the starting air system (**LC**). An investigation determined that one set of Loss of Coolant Accident (LOCA) contacts did not function as required. This was corrected and the surveillance was successfully completed, and is not reportable. During the same testing, the Loss of Power (LOP) portion of the test was also observed and both tanks successfully reduced in pressure as expected. Therefore, the LOP contacts performed as required and the surveillance requirements were met in RF-09.

In a subsequent review of the LOP/LOCA test data, it was realized that for the LOP portion of the test, the LOP contacts were not directly monitored and a failure of a contact to close would not have been detected without the previously described monitoring of the air banks (**ACC**). Further review revealed that there was no data to substantiate that the LOP contacts performed correctly in RF-08. The absence of this provision in the procedure resulted in a failure to adequately perform the required surveillance.

However, the technical specification surveillance requirements for LOP functions were satisfactorily performed on March 24, 2000 for Division II and on April 5, 2000 for Division I. The LOP related circuits operated satisfactorily and would have performed their safety function. The safety significance of the reported procedure inadequacy is minimal.

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

FACILITY NAME (1)	DOCKET (2) NUMBER (2)	LER NUMBER (6)			PAGE (3)
River Bend Station	05000-458	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		00	- 015 -	00	

REPORTED CONDITION

On October 12, 2000, at 1535 with the plant in Mode 1 (Power Operation) at 100 percent power, a system engineer determined through post-maintenance review of documentation for both emergency diesel generators (EDG) (**DG**) that all diesel start functions were not verified for Logic System Functional Test (LSFT) surveillance purposes during RF-8. This event is being reported in accordance with 10CFR50.73(a)(2)(i)(b) as operation prohibited by technical specifications.

BACKGROUND

Surveillance test procedures (STP) are used at River Bend Station (RBS) to perform technical specification (TS) related surveillances. The STPs are expected to fulfill the requirements necessary to assure that the tested equipment is operable and verify that safety functions work properly. Each of the three EDG divisions has its own STPs to permit ease of scheduling and tracking the testing.

Division I and II EDGs have both a forward and a rear air start system (**LC**) each of which is capable of starting the unit. The logic for actuating each of these starting systems has plant monitoring circuitry feeding a set of parallel contacts, one set for loss of power (LOP) and one set for loss of coolant accident (LOCA). The LOP and LOCA contacts are physically in parallel in each circuit so that a signal from either will permit the EDG to start and perform its safety function. The LOP instrumentation is required to ensure the engineered safety features function during any accident with a loss of offsite power.

Technical Specifications (TS) surveillance requirement (SR) 3.3.8.1.4 requires an LSFT for EDG start logic every eighteen months. The SR is required to prove the operability of the actuation logic of a particular channel. Table 3.3.8.1-1 in the TS requires all channels be tested for under voltage and degraded voltage functions. To ensure the division logic instrumentation is operable, each set of contacts must be verified to operate. An LSFT is a test of all required logic components of a logic circuit from as close as possible to the initiating sensor through the circuit to as close as possible to the activated device to verify operability. The LSFT may be performed by means of any series of sequential, overlapping, or total system steps so that the entire logic system is tested. For example, parallel circuits, which perform the same actuation, are to be tested separately to ensure all portions of the circuit are tested.

INVESTIGATION

On February 3, 1997, a condition was identified during STP review that questioned the capability of the procedure to satisfy the LSFT requirements and a condition report was written. The STP had verified that the combined LSFT function occurred (LOCA and LOP) but did not test the LOP contacts in the redundant EDG start circuits. The corrective actions from that condition report required a procedure revision to correct the deficiency. On December 26, 1997, the procedure changes were issued. The revised procedures were used during RF-08 during performances of this surveillance.

On April 1, 2000, while performing surveillance testing during RF-09, a system engineer questioned the response of the starting air system in that only one air bank (**ACC**) reduced in pressure. A condition report (CR) was written and the event was investigated. One LOCA contact did not operate as evidenced by the failure of the air start valve (**FSV**) to open and draw pressure from one air bank. This deficiency was corrected and retested satisfactorily. The RF-09 LOP surveillances were determined to be acceptable because both air banks reduced in pressure indicating proper operation of the circuits. Thus, the LSFT was fully demonstrated for RF-09.

The disposition of the April, 2000 CR determined the apparent cause of the problem to be technical inaccuracies in the LOP/LOCA procedure in that the procedure did not satisfactorily perform the required LSFT surveillance for the LOP

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

FACILITY NAME (1)	DOCKET (2) NUMBER (2)	LER NUMBER (6)			PAGE (3)
River Bend Station	05000-458	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 3
		00	- 015 -	00	

contacts. A corrective action was issued to perform a review of RF-08 test data to determine if data was available to confirm compliance with the LOP LSFT surveillance requirements.

On October 12, 2000, the review of RF-08 information was completed. The LOCA related contacts are properly monitored by the STPs but the LOP related contacts are not because the testing methodology does not differentiate between the LOP and LOCA contacts as the source of signal initiation. The review determined that the corrective action from 1997 provided guidance to test the LOP contacts, but did not provide specific technical guidance on how to accomplish the action. When the procedure was revised, the location of the steps in the procedure was deficient and therefore, did not correct the problem.

CAUSE ANALYSIS AND IMMEDIATE CORRECTIVE ACTIONS

The root cause of the 1997 condition was determined to be an inadequate procedure and corrective actions were issued to amend the procedure. However, these actions taken to ensure that both the LOP and LOCA contacts were tested during surveillance testing of the EDGs were inadequate in that the procedure did not provide clear instructions to enable technicians to correctly perform the testing of the air starting system logic. The root cause of this inadequate procedure was a failure to adequately implement corrective actions.

The performance of the subject tests during RF-09 provided the necessary information to meet the surveillance because of the additional monitoring of the air bank pressures. This monitoring was not specifically part of the LSFT surveillance test and was not performed in RF-08.

Additional actions are being addressed through the corrective action process.

PREVIOUS OCCURRENCE EVALUATION

A review of previous licensee event reports (LER) from 1998 to the present indicated that a similar event has been reported. LER 99-012-00 reported that the EDG differential current trip function circuitry might not have been fully tested. The causes of this event were related to complex wording, insufficient information and inadequate change management.

SAFETY SIGNIFICANCE

The technical specification surveillance requirements were satisfactorily performed on March 24, 2000 for Division II and on April 5, 2000 for Division I. LOP contacts operated satisfactorily and therefore, there is no reason to believe that the components were not functional during the period of inadequate surveillance testing prior to RF-09. The required functions were available; engineering judgment and the successful tests indicate that the components would have performed their safety functions if needed. The safety significance of the reported procedure inadequacy is minimal.

(Note: Energy industry component identification codes are annotated in the text as (**XXX**).)