



Entergy[®]

Entergy Operations, Inc.
River Bend Station
5485 U.S. Highway 61N
St. Francisville, LA 70775
Tel 225-381-4374

William F. Maguire
Site Vice President

RBG-47800

November 13, 2017

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

Subject: Licensee Event Report 50-458 / 2017-009-00
River Bend Station – Unit 1
Docket No. 50-458
License No. NPF-47

RBF1-17-0138

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. Tim Schenk at 225-381-4177.

Sincerely,

WFM

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

INPO
(via ICES reporting)

IEZZ
NRR

Licensee Event Report 50-458 / 2017-009-00
November 13, 2017
RBG-47800
Page 2 of 2

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)

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by 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 4
--	--------------------------------------	--------------------------

4. TITLE
Potential Loss of Safety Function of Secondary Containment due to Unsecured Personnel Door

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
09	27	2017	2017	009	00	11	13	2017		05000
									FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: <i>(Check all that apply)</i>									
	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)						
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)						
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)						
10. POWER LEVEL 85	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(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)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)						
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)						
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)						
	<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)(D)	<input type="checkbox"/> 73.77(a)(2)(i)						
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)						
		<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A						

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Tim Schenk, Manager – Regulatory Assurance	TELEPHONE NUMBER <i>(Include Area Code)</i> 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
na									

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES <i>(If yes, complete 15. EXPECTED SUBMISSION DATE)</i>	<input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR

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

On September 27, 2017, at approximately 10:00 a.m. CDT, with the plant operating at 85 percent power, a door in the auxiliary building pressure boundary was left unsecured by an employee entering the building. The employee failed to fully close the door, and then did not properly challenge the door to confirm its security prior to leaving the area. A security officer responded to the resulting alarm, and fully closed the door approximately four minutes later. Since the worker had sufficient experience with watertight doors to know their proper operation, this event is considered a skill-based error caused by over-confidence and improper assumptions. Having successfully used such doors numerous times, the worker was confident in the ability to do so. The effort to check the door's security by pushing it failed, likely due to its heavy mass. A briefing memorandum was issued from the general manager to site personnel. Tamper alarms were installed on all watertight doors in the secondary containment boundary to provide an audible indication that the door is open. Administrative controls have been instituted to schedule routine battery replacements.



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

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by 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	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
River Bend Station – Unit 1	05000-458	2017	009	00

NARRATIVE

REPORTED CONDITION

On September 27, 2017, at approximately 10:00 a.m. CDT, with the plant operating at 85 percent power, a door (**DR**) in the auxiliary building [NF] pressure boundary was left unsecured by an employee entering the building. The employee failed to fully close the door, and then did not properly challenge the door to confirm its security prior to leaving the area. A security officer responded to the resulting alarm, and fully closed the door approximately four minutes later.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(v)(C) as an event that could have caused the loss of the safety function of the secondary containment pressure boundary.

BACKGROUND

The auxiliary building is part of the secondary containment pressure boundary. The event for which credit is taken for secondary containment is a loss of coolant accident. The secondary containment performs no active function in response to this event. However, its leak tightness is required to ensure that the release of radioactive materials from the primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis, and that fission products entrapped within the secondary containment structures will be treated prior to discharge to the environment.

The access doors in the auxiliary building pressure boundary have no redundancy. That is, each passageway contains only one door, not two doors in an airlock arrangement. As such, one unsecured door compromises the integrity of the pressure boundary.

CAUSAL ANALYSIS

The door was mis-operated by a contract worker with significant experience at River Bend, who had successfully traversed such doors in the past. The pre-job brief for the work to be performed in the auxiliary building did not include a specific discussion of secondary containment doors.

Four workers were traversing the door sequentially. The first worker swiped the card reader to open the door, and all the following workers swiped the card reader before entering the building to assure security accountability. The last person entering the door is responsible for closing it properly to secure the boundary. In this instance, the last person was being assisted by the previous worker who pulled on the door handle, while the last worker pulled on the door lock hand wheel. The worker pulling on the hand wheel inadvertently rotated it, causing the latch bolts to extend slightly. The latch bolts contacted the door frame outside of their receivers, preventing the door from being closed completely. Thinking that the door was properly closed, the worker holding the hand wheel rotated it fully, and the worker pulling the handle failed to notice that the door was not in contact with the seating surface in the frame. The worker then made an effort to assure the door's security by pushing in the open direction, but failed to move it. They then departed the area, leaving the door unsecured.



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

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by 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	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
River Bend Station – Unit 1	05000-458	2017	009	00

Since the worker had sufficient experience with watertight doors to know their proper operation, this event is considered a skill-based error caused by over-confidence and improper assumptions. Having successfully used such doors numerous times, the worker was confident in the ability to do so. The effort to check the door's security by pushing it failed, likely due to its heavy mass.

CORRECTIVE ACTION TO PREVENT RECURRENCE

The following actions have been completed to prevent a recurrence of this event. These actions are documented in the station's corrective action program.

A briefing memorandum was issued from the general manager to site personnel.

Tamper alarms were installed on all watertight doors in the secondary containment boundary to provide an audible indication that the door is open. Administrative controls have been instituted to schedule routine battery replacements.

PREVIOUS OCCURRENCE EVALUATION

A similar event was reported by RBS in LER 050/458-2013-002-00. On September 19, 2013, at approximately 1437 CDT, with the plant operating at 100% power, the same door was left unsecured by an employee entering the auxiliary building. Upon closing the door, the employee mistakenly rotated the hand wheel while pulling on it, caused the latch bolts to extend partially. The latch bolts then contacted the door frame outside the receivers, blocking the door open slightly. The employee did not notice that the door was slightly open when he rotated the hand wheel to the "closed" position, and then did not properly challenge the door to confirm its security prior to leaving the area. A security officer responded to the resultant alarm, and fully closed the door approximately four minutes later. One of the corrective actions taken in response to that event was to update the computer-based training module used in the process for granting unescorted access to the site to include specific material related to the operation of watertight secondary containment doors. The skill-based error of failing to assure the security of the door occurred despite having successfully performed the task numerous times in the past. Both workers at the scene failed to adequately self-check their actions.

An additional corrective action in 2013 was to procure a commercially-available audible door tamper alarm that could be installed without any modification to the door itself, as well as other similar doors in the auxiliary building. These alarm modules were maintained for approximately two years, but no rigorous programmatic control was put into place at the time to assure their continued functionality, and the alarms modules were eventually removed.

SAFETY SIGNIFICANCE

The River Bend Updated Safety Analysis Report describes the sequence of events postulated to occur following a loss of coolant accident (LOCA). Part of that analysis is a projection of the maximum radiation dose received by a person at the site boundary. The LOCA dose calculation assumes that the standby gas treatment system is initiated 20 minutes into the event, and that secondary containment is at the required negative pressure within 30 minutes, such that filtration may be credited. As such, the safety function of secondary containment is maintained as long as the boundary is secured (or



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

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by 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	2. DOCKET NUMBER	3. LER NUMBER		
River Bend Station – Unit 1	05000-458	YEAR	SEQUENTIAL NUMBER	REV NO.
		2017	009	00

capable of being secured) within 20 minutes of the time of the security alarm. Since the subject door was secured within approximately four minutes of the time of the alarm, the safety function of secondary containment was actually maintained. This event was of minimal significance with respect to the health and safety of the public.

(NOTE: Energy Industry Identification System component function identifier and system name of each component or system referred to in the LER are annotated as (**XX**) and [XX], respectively.)