

Entergy Operations, Inc.
River Bend Station
5485 U. S. Highway 61N
St. Francisville, LA 70775
Tel 225 381 4374
Fax 225 381 4872
eolson@entergy.com

Eric W. Olson Site Vice President

RBG-47357

April 18, 2013

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

Subject:

Licensee Event Report 50-458 / 2013-001-00

River Bend Station - Unit 1

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

RBF1-13-0045

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. Joseph Clark at 225-381-4177.

Sincerely,

EWO/dhw

Exely Olo

**Enclosure** 

ITEZZ MRE & Licensee Event Report 50-458 / 2013-001-00 April 18, 2013 RBG-47357 RBF1-13-0045 Page 2 of 2

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 Records Center E-Mail (MS Word format)

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
JiYoung Wiley
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. FACILI	TY NA	ME					2. DOC	KET NUMBI	ER	3. PAGE	3. PAGE				
River B	end S	tation – l	Jnit 1				05000 - 458 1 OF 3					3			
4. TITLE															
Operations Prohibited by Technical Specifications for Operations With a Potential to Drain the Reactor Vessel															
5. E\	VENT [	ATE	6. LER NUMBER				7. RE	PORT D	ATE			ACILITIES	CILITIES INVOLVED		
MONTH	DAY	YEAR	YEAR		ENTIAL IBER	REV NO.	MONTH	DAY	YEAR	facility N. n/a	AME		05000		
03	02	2013	:	2013-0	01-00		04	18	2013	FACILITY N n/a	AME	05000			
9. OPERATING MODE 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)											oply)				
5			20.2201(d)				20.2203(a)(3)(i) 20.2203(a)(3)(ii) 20.2203(a)(4) 50.36(o)(1)(i)(A)			☐ 50.73(a)(2)(i)(C) ☐ 50.73(a)(2)(ii)(A) ☐ 50.73(a)(2)(ii)(B) ☐ 50.73(a)(2)(iii)		50.7 50.7	☐ 50.73(a)(2)(vii) ☐ 50.73(a)(2)(viii)(A) ☐ 50.73(a)(2)(viii)(B) ☐ 50.73(a)(2)(ix)(A)		
10. POW	ER LE	EL	1	203(a)(2		Ī	50.36(c)(1)(ii)(A)			50.73(a)			50.73(a)(2)(x)		
			20.2203(a)(2)(iii)				50.36(c)(2)			50.73(a)		73.71(a)(4)			
0							50.46(a)(3)(ii)		•	50.73(a)	_	73.71(a)(5)			
							☐ 50.73(a)(2)(i)(A) ☑ 50.73(a)(2)(i)(B)			50.73(a)(2)(v)(C) 50.73(a)(2)(v)(D)		Speci	OTHER  Specify in Abstract below or in NRC Form 366A		
12. LICENSEE CONTACT FOR THIS LER															
FACILITY NAME  Joseph A. Clark, Manager – Licensing									TELEPHONE NUMBER (Include Area Code) 225-381-4177						
		1	3. COMP	LETE O	NE LINE	FOR E	ACH COMP	ONENT	FAILURE	DESCRIBE	D IN THIS R	EPORT			
CAUSE		SYSTEM	СОМРС	NENT	MANI FACTUI		REPORTABLI TO EPIX	ĒC.	AUSE	SYSTEM	COMPONE	NT MAN FACTU		REPORTABLE TO EPIX	
n/a															
14. SUPPLEMENTAL REPORT EXPECTED								<sup>1</sup>		15. EXPECTED SUBMISSION			DAY	YEAR	
∐ YES	(If yes,	complete 1	5. EXPEC	TED SU	JBŅISSI	ON DAT	E) NO			DA	TE				
On the the dra prir Me cor	Marc reac appli in the mary mora mpliar	h 2, 201 for recirc cable Te reactor containn ndum 1	3, at ap culation echnica vessel nent. T I-003 (F Techni	oproximosyste I Spece , and this action Rev. 1 cal Speces	mately m was dification the requition was ) were decifica	1448 comr ons. T juired as not instea	menced wantender maintender maintender maintender metalen meintender mehren meh	h the vithout tenand such a the d. The ored a	taking ce cons an act provisi e main t 0830	the requestituted opinity is resions of Nates tenance of CST on Nates to the second se	ng outage ired action perations storation of RC Enforce was comp	ns to com with a po of the inte cement G bleted and This ever	ply witential grity ouidan I t is be	th to of ce	
reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications, as additionally specified by the Enforcement Guidance Memorandum.															

NRC FORM 366A (10-2010)

# LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

U.S. NUCLEAR REGULATORY COMMISSION

	• • • • • • • • • • • • • • • • • • • •				
1. FACILITY NAME	2. DOCKET	6. LER NUMBER 3. PAGE	3. PAGE		
	05000 450	YEAR SEQUENTIAL REV. NUMBER NO.			
River Bend Station – Unit 1	05000 -458	2 OF 3			

## REPORTED CONDITION

On March 2, 2013, at approximately 1448 CST, with the plant in a refueling outage, maintenance on the reactor recirculation system was commenced without taking the required actions to comply with the applicable Technical Specifications (TS). This maintenance constituted operations with a potential to drain the reactor vessel (OPDRV), and the required action for such an activity is restoration of the integrity of primary containment. This action was not taken, and the provisions of NRC Enforcement Guidance Memorandum 11-003 (Rev. 1) (EGM) were instead invoked. The maintenance was completed and TS compliance was restored at 0830 CST on March 7. This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as operations prohibited by Technical Specifications, as additionally specified by the EGM.

## **EVENT DESCRIPTION**

An OPDRV is an activity that could result in the draining or siphoning of the reactor pressure vessel (RPV) water level below the top of fuel without crediting the use of mitigating measures to terminate the draining prior to uncovering fuel. Based on Technical Specification applicability, an OPDRV is a change to the applicability as related to the Limiting Condition for Operation (LCO), and therefore treated much like a mode change.

The NRC issued Revision 1 of the EGM on December 20, 2012, to provide guidance on how to disposition boiling water reactor licensee noncompliance with TS containment requirements during OPDRV operations. Certain safety systems must be operable during OPDRV activities to mitigate drain-down events and to provide protection against untreated fission product release in the event that the RPV water level drops below irradiated fuel. The TS does not define the term OPDRV or identify specific plant actions that constitute OPDRV activities. Because a definition is not provided, the NRC staff expects licensees to use the plain language meaning of the OPDRV wording for determining applicability. This means that any activity that could potentially result in draining or siphoning the RPV water level below the top of the fuel without taking credit for mitigating measures would be an OPDRV activity.

In order to utilize the EGM and be eligible for enforcement discretion, the licensee is required to:

- (1) adhere to the NRC plain language meaning of OPDRV activities,
- (2) meet the requirements which specify the minimum makeup flow rate and water inventory based on OPDRV activities with long drain-down times,

#### U.S. NUCLEAR REGULATORY COMMISSION NRC FORM 366A LICENSEE EVENT REPORT (LER) (10-2010)**CONTINUATION SHEET** 3. PAGE 2. DOCKET 1. FACILITY NAME 6. LER NUMBER YEAR SEQUENTIAL REV. NUMBER 3 OF 3 River Bend Station - Unit 1 05000 -458 2013 -- 001 -- 00

- (3) ensure that adequate defense-in-depth is maintained to minimize the potential for the release of fission products by monitoring RPV level to identify the onset of a loss of inventory event by maintaining the capability to isolate the potential leakage paths, by prohibiting Mode 4 (cold shutdown) OPDRV activities, by prohibiting movement of irradiated fuel, and,
- (4) follow all other Mode 5 TS requirements for OPDRV activities.

The station used the provisions of the EGM in order to replace the pump seals and the flow control valve packing in the "A" loop of the reactor recirculation system. When the loop was isolated to set the required conditions for the maintenance, the technicians determined that the baseline leakage through the loop isolation valves was approximately seven gallons per minute, which was well within the prerequisites of the EGM.

The OPDRV was completed at 0830 CST on March 7, with no complications regarding pool water level control.

### PREVIOUS OCCURRENCE EVALUATION

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

## SAFETY SIGNIFICANCE

The prerequisites of the EGM and applicable station procedures were met prior to the start of the maintenance. The high pressure core spray, low pressure core spray, and "A" residual heat removal systems were designated for emergency water level control. The reactor cavity water level was greater than 23 feet above the RPV flange, and all pool gates were open. Contingency plans for potential leakage paths were in place, and two independent channels of pool water level were in service. No transients in pool water level occurred during the maintenance. Thus, this event was of minimal significance with respect to the health and safety of the public.