



**AUG 16 2007**

SERIAL: BSEP 07-0084

10 CFR 50.73

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Subject: Brunswick Steam Electric Plant, Unit No. 2  
Docket No. 50-324/License No. DPR-62  
Licensee Event Report 2-2007-003

Ladies and Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Part 50.73, Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., submits the enclosed Licensee Event Report.

Please refer any questions regarding this submittal to Mr. Randy C. Ivey,  
Manager - Support Services, at (910) 457-2447.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Terry D. Hobbs'.

Terry D. Hobbs  
Plant General Manager  
Brunswick Steam Electric Plant

MAT/mat

Enclosure:

Licensee Event Report

Progress Energy Carolinas, Inc.  
Brunswick Nuclear Plant  
PO Box 10429  
Southport, NC 28461

Handwritten initials 'TE22' in a stylized, bold font.

Handwritten initials 'NRR' in a simple, blocky font.

cc (with enclosure):

U. S. Nuclear Regulatory Commission, Region II  
ATTN: Dr. William D. Travers, Regional Administrator  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW, Suite 23T85  
Atlanta, GA 30303-8931

U. S. Nuclear Regulatory Commission  
ATTN: Mr. Joseph D. Austin, NRC Senior Resident Inspector  
8470 River Road  
Southport, NC 28461-8869

U. S. Nuclear Regulatory Commission **(Electronic Copy Only)**  
ATTN: Mr. Stewart N. Bailey (Mail Stop OWFN 8B1)  
11555 Rockville Pike  
Rockville, MD 20852-2738

Chair - North Carolina Utilities Commission  
P.O. Box 29510  
Raleigh, NC 27626-051

**LICENSEE EVENT REPORT (LER)**

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

Estimated burden per response to comply with this mandatory information 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](mailto: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.

<b>1. FACILITY NAME</b> Brunswick Steam Electric Plant (BSEP), Unit 2	<b>2. DOCKET NUMBER</b> 05000324	<b>3. PAGE</b> 1 OF 3
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**4. TITLE**  
As-Found Values for Safety/Relief Valve Lift Setpoints Outside Technical Specification Allowed Tolerance

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
06	26	2007	2007	-- 003 --	00	08	XX	2007	FACILITY NAME	DOCKET NUMBER
										05000
										05000

<b>9. OPERATING MODE</b> 1	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §:</b> (Check one or more)									
<b>10. POWER LEVEL</b> 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 Mark A. Turkal, Lead Engineer - Licensing	TELEPHONE NUMBER (Include Area Code) (910) 457-3066
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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				15. EXPECTED SUBMISSION DATE		MO	DAY	YEAR
X	YES	(If yes, complete EXPECTED SUBMISSION DATE).	NO	10	18	2007		

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

On June 26, 2007, the Brunswick Steam Electric Plant received the results of as-found testing of 11 safety/relief valves (SRVs); which had been removed from Unit 2 during the spring 2007, refueling outage (i.e., B218R1). These results indicated that four of the 11 valves mechanically actuated at pressures outside of the 3 percent tolerance allowed by Technical Specification 3.4.3, "Safety/Relief Valves." Since Technical Specification 3.4.3 requires 10 of the 11 installed SRVs to be operable, this condition is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as operation prohibited by the plant's Technical Specifications.

The root cause evaluation of this event has not been completed. A supplement to this LER is planned.

The 11 SRV pilot valve assemblies were replaced with certified spares during the B218R1 refueling outage. Additional corrective actions, if necessary, will be established based on the root cause evaluation results.

**LICENSEE EVENT REPORT (LER)**

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Brunswick Steam Electric Plant (BSEP), Unit 2	05000324	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2007	-- 003	-- 00	

**NARRATIVE** (If more space is required, use additional copies of NRC Form 366A) (17)

Energy Industry Identification System (EIIS) codes are identified in the text as [XX].

Introduction

On June 26, 2007, the Brunswick Steam Electric Plant received the results of as-found testing of 11 safety/relief valves (SRVs) [SB/RV]; which had been removed from Unit 2 during the spring 2007, refueling outage (i.e., B218R1). These results indicated that four of the 11 valves actuated at pressures outside of the 3 percent tolerance allowed by Technical Specification 3.4.3, "Safety/Relief Valves."

Event Description

*Initial Conditions*

At the time the condition was identified, Unit 2 was in Mode 1, at approximately 100 percent of rated thermal power.

*Discussion*

During the spring 2007, Unit 2 refueling outage, the 11 Model 7567F Target Rock Two-Stage pilot valve assemblies were replaced with certified spares. The removed SRVs were sent to Wyle Laboratories for set pressure testing. On June 26, 2007, Engineering personnel received the results of the as-found testing which indicated that four of the 11 valves actuated at pressures outside of the 3 percent tolerance allowed by Technical Specification 3.4.3. The test data is provided in the following table.

Valve Identification	As-Found (psig)	Technical Specification Setpoint (psig)	Percent Difference
2-B21-F013B	1206	1150 ± 34.5	+4.9%
2-B21-F013D	1200	1140 ± 34.2	+5.3%
2-B21-F013F	1171	1130 ± 33.2	+3.6%
2-B21-F013K	1247	1140 ± 34.2	+9.4%

Since Technical Specification 3.4.3 requires 10 of the 11 installed SRVs to be operable, this condition is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B) as operation prohibited by the plant's Technical Specifications.

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Brunswick Steam Electric Plant (BSEP), Unit 2	05000324	2007	-- 003	-- 00	3 OF 3

**NARRATIVE** (If more space is required, use additional copies of NRC Form 366A) (17)

### Event Cause

The root cause evaluation of this event has not been completed. A supplement to this LER is planned.

### Safety Assessment

The safety significance of this condition is considered minimal. The as-found condition of the Unit 2 SRVs was compared to the current overpressure analysis prepared in support of extended power uprate and it was concluded that this analysis remained bounding. As such, the applicable acceptance criteria for design basis events would have been met and the SRVs remained capable of performing their intended safety function.

### Corrective Actions

The 11 SRV pilot valve assemblies were replaced with certified spares during the B218R1 refueling outage. Additional corrective actions, if necessary, will be established based on the root cause evaluation results.

### Previous Similar Events

A review of LERs and corrective action program condition reports for the past three years identified the following similar event.

- LER 1-2006-004, dated July 26, 2006, as supplemented on November 6, 2006, documents operation prohibited by TSs that occurred as a result of as-found testing which indicated that four of the 11 valves actuated at pressures outside of the 3 percent tolerance allowed by Technical Specification 3.4.3. Since this was the first Unit 2 refueling outage after LER 1-2006-004, the corrective actions associated with LER 1-2006-004 could not have reasonably been expected to prevent the condition reported in this LER.

### Commitments

No regulatory commitments are contained in this report.