



Carolina Power & Light Company
P.O. Box 10429
Southport, NC 28461-0429

SERIAL NO: BSEP 98-0192

SEP 28 1998

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

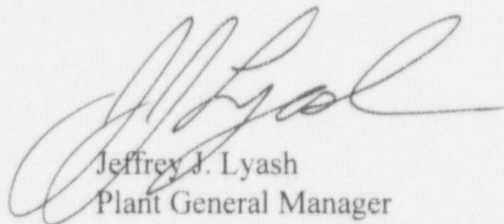
BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-324/LICENSE NO. DPR-62
LICENSEE EVENT REPORT 2-98-003

Gentlemen:

In accordance with the Code of Federal Regulations, Title 10, Part 50.73, Carolina Power & Light Company submits the enclosed Licensee Event Report. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence.

Please refer any questions regarding this submittal to Mr. Keith R. Jury, Manager - Regulatory Affairs, at (910) 457-2783.

Sincerely,


Jeffrey J. Lyash
Plant General Manager
Brunswick Steam Electric Plant

1/1
Jez

SFT

Enclosure: Licensee Event Report

9810020208 980928
PDR ADOCK 05000324
S PDR

cc:

U. S. Nuclear Regulatory Commission
ATTN: Mr. Luis A. Reyes, Regional Administrator
Atlanta Federal Center
61 Forsyth Street, SW, Suite 23T85
Atlanta, GA 30303

U. S. Nuclear Regulatory Commission
ATTN: Mr. Charles A. Patterson, NRC Senior Resident Inspector
8470 River Road
Southport, NC 28461

U. S. Nuclear Regulatory Commission
ATTN: Mr. David C. Trimble, Jr. (Mail Stop OWFN 14H22)
11555 Rockville Pike
Rockville, MD 20852-2738

Ms. Jo A. Sanford
Chair - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510

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 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 not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1) Brunswick Steam Electric Plant (BSEP), Unit No. 2		DOCKET NUMBER (2) 05000324	PAGE (3) 1 OF 4
--	--	-------------------------------	--------------------

TITLE (4)
Main Steam Isolation Valve Closures Due To Procedure Deficiency

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NO.	REVISION	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
08	29	1998	1998	-- 003	-- 00	09	28	1998	FACILITY NAME	DOCKET NUMBER
OPERATING)		2	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		1	20.2201(b)			20.2203(a)(2)(v)			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)		X	50.73(a)(2)(iv)	OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Steven F. Tabor, Project Analyst - Regulatory Affairs	TELEPHONE NUMBER (Include Area Code) (910) 457-2178
---	--

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
--	---	----	-------------------------------	-------	-----	------

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

On August 29, 1998, at 2126 hours, during a startup of Unit 2, two main turbine bypass valves (BPVs) fully opened and a third BPV partially opened, causing main steam flow to exceed 40% with the reactor mode switch not in the run position. By design, this condition resulted in the automatic closure of the inboard and outboard main steam isolation valves (MSIVs). The plant, systems, and affected components responded as designed.

The cause of the MSIV isolations is attributed to procedure inadequacy. Specifically, unit startup and shutdown procedures did not provide the controls necessary for ensuring that the BPV jack was in the closed position prior to commencing reactor startup. Operation with condenser vacuum greater than 7 inches of mercury and the BPV jack not in the fully closed position will result in opening of the BPVs. Following the occurrence, the open BPVs were closed using the BPV jack and the primary containment isolation system logic was reset. The MSIVs were reopened at 2210 hours. Following verification that plant conditions were normal and completion of a walkdown of the Unit 2 reactor turbine generator board, unit startup resumed.

Corrective actions include review of the lessons learned from this occurrence with Operations personnel and revisions to the affected operating procedures.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Brunswick Steam Electric Plant, Unit No. 2	05000324	98	-- 003	-- 00	2 OF 4

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

TITLE

Main Steam Isolation Valve Closures Due To Procedure Deficiency

INITIAL CONDITIONS

On August 25, 1998, the Unit 2 reactor was shutdown in accordance with emergency procedure requirements in anticipation of experiencing the hurricane force winds associated with Hurricane Bonnie. Following the hurricane, at 1334 hours on August 29, 1998, Unit 2 reactor startup was commenced. The reactor was brought to criticality at 1634 hours. At 2114 hours, mechanical vacuum pumps 2A and 2B were started to establish condenser vacuum. The main turbine stop and control valves were closed.

EVENT NARRATIVE

On August 29, 1998, at 2126 hours, when condenser vacuum had reached approximately 7 inches of mercury (Hg), two main turbine [TA] bypass valves (BPVs) fully opened and a third BPV partially opened. Opening of the BPVs caused main steam flow to increase. As designed, when 40% main steam flow was exceeded with the reactor mode switch not in the run position, a primary containment isolation system (PCIS)/[JM] Group 1 (i.e., main steam isolation valves) isolation trip signal occurred. This condition resulted in the automatic closure of the inboard and outboard main steam isolation valves (MSIVs).

Following the occurrence, Operations personnel observed that the BPV jack was not in the fully closed position. The BPV jack is a motor driven potentiometer which is used to allow manual cycling of the BPVs during reactor shutdown conditions. Operation with condenser vacuum greater than 7 inches Hg and the BPV jack not in the fully closed position will result in opening of the BPVs. After observing the incorrect position of the BPV jack, the control operator closed the open BPVs using the BPV jack. Operations verified that the appropriate system actuations had occurred and that the affected components operated as designed. By 2210 hours, the PCIS isolation logic was reset and the MSIVs reopened. Following verification that plant conditions were normal and completion of a walkdown of the Unit 2 reactor turbine generator board, unit startup was resumed. The NRC was notified of this occurrence at 2322 hours, in accordance with the requirements of 10 CFR 50.72(b)(2)(ii).

This occurrence is being reported in accordance with the requirements of 10 CFR 50.73(a)(2)(iv) as a condition that resulted in the actuation of an engineered safety feature.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Brunswick Steam Electric Plant, Unit No. 2	05000324	98	003	-- 00	3 OF 4

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

CAUSE OF EVENT

The cause of the MSIV isolations is attributed to a procedure inadequacy. Specifically, unit startup and shutdown procedures did not provide the controls necessary for ensuring that the BPV jack was in the closed position prior to commencing reactor startup.

During the unit shutdown activities that occurred prior to August 29, 1998, the Unit 2 main turbine BPV jack was used to open bypass valves in support of plant cool down in accordance with OGP-05, "Unit Shutdown." Review of this procedure and unit startup procedures determined that these procedures do not contain the necessary instructions to ensure that the BPV jack is positioned to, or verified to be in, the closed position prior to initiation of unit startup activities.

CORRECTIVE ACTIONS

The appropriate operating procedures will be revised to ensure adequate controls are provided for ensuring the proper position of the main turbine BPV jack during unit startup.

The lessons learned from this occurrence have been reviewed with licensed operators and Operations procedure writers.

SAFETY ASSESSMENT

The safety significance of this occurrence is considered minimal, in that, reactor parameters remained within the normal control bands during the transient. In addition, the PCIS Group 1 isolation logic functioned as designed.

PREVIOUS SIMILAR EVENTS

Events involving ESF actuations that resulted from procedure deficiencies were reported in the following LERs:

LER 1-95-010 reported the ESF actuations that resulted from a loss of power to the Reactor Protection System bus 1A during transfer of emergency bus E-1 from an Emergency Diesel Generator to the normal off-site power source.

LER 1-95-017 reported an invalid Main Stack Wide Range Gas Monitor (WRGM) high radiation trip signal that occurred while obtaining a gaseous grab sample from the WRGM.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)	
Brunswick Steam Electric Plant, Unit No. 2	05000324	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 OF 4	
		98	003 --	00		

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

LER 1-95-018 reported an automatic Unit 1 reactor shutdown due to a reactor water level transient that resulted from vapor binding of the operating condensate pumps. The vapor binding was caused by air-inleakage which occurred during the on-line replacement of a condensate system conductivity cell.

Based on the specific circumstances associated with these occurrences (e.g., activities being performed and the disciplines and equipment involved), the corrective actions taken as a result of these occurrences could not reasonably be expected to have prevented this most recent occurrence.

COMMITMENTS

Those actions committed to by Carolina Power & Light (CP&L) Company in this document are identified below. Any other actions discussed in the submittal represent intended or planned actions by CP&L. They are described for the NRC's information and are not regulatory commitments. Please notify the Manager - Regulatory Affairs at the BSEP of any questions regarding this document or any associated regulatory commitments.

Revisions to the appropriate operating procedures will be implemented by December 11, 1998, to ensure adequate controls are provided for ensuring proper positioning of the main turbine BPV jack during unit startup.