



Caroline Power & Light Company

Brunswick Nuclear Project  
P. O. Box 10429  
Southport, N.C. 28461-0429

MAR 30 1992

FILE: 809-13510C

10CFR50.73

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

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1 & 2  
DOCKET NO. 50-325 & 50-324  
LICENSE NO. DPR-71 & DPR-62  
LICENSEE EVENT REPORT 1-92-008

Gentlemen:

In accordance with Title 10 of the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report fulfills the requirement for a written report within thirty (30) days of a reportable occurrence and is submitted in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours,

J. W. Spencer, General Manager  
Brunswick Nuclear Project

RK/

Enclosure

cc: Mr. S. D. Ebner  
Mr. N. B. Le  
BSEP NPC Resident Office

020000  
9204020158 920401  
PDR ADDCK 05000325  
PDR

IE22  
11

EXPIRES: 4/30/92

## LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-330), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) Brunswick Steam Electric Plant  
Unit 1

DOCKET NUMBER (2)  
05000325

PAGE (3)

1

TITLE (4) SPURIOUS CHLORINE DETECTOR ACTUATION CAUSED CONTROL BUILDING VENTILATION SYSTEM  
AUTOMATIC ISOLATION

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQ. NO.	REV. NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
3	2	92	92	- 008	- 0	4	1	92	Brunswick Unit 2	05000324

OPERATING MODE (9) 3

POWER LEVEL (10) 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more of the following) (11)

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		X	
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vi)	OTHER (Specify in Abstract and Text)
20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(vii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

## LICENSEE CONTACT FOR THIS LER (12)

NAME Rhonda S. Knight, Regulatory Compliance Specialist

TELEPHONE NUMBER

(919) 457-2174

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	VI	DET	W025	Y					

## SUPPLEMENTAL REPORT EXPECTED (14)

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

## ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single space typewritten lines) (16)

On March 2, 1992, Unit 1 was in hot shutdown and Unit 2 was operating at 78% power. The common Control Building ventilation was in normal operation. At approximately 1255, a chlorine detector which is located at the chlorine tank car loading area spuriously tripped. A Unit 2 Control Room annunciator was received for "Chlorine Loading Area HI Chlorine". This was followed by the Control Building fans automatically tripping and the automatic closure of the normal makeup air damper. The control operator verified that the automatic actions had occurred and performed required actions per the annunciator procedure. The abnormal operating procedure (AOP) for chlorine and toxic gas emergencies was entered. At 1256, the annunciator cleared and the Control Building damper automatically opened. Redundant chlorine detectors and a physical inspection of the area indicated no evidence of a chlorine release. At 1312 the AOP was exited. At approximately 1315, the Control Building ventilation was returned to normal. The cause of the spurious chlorine detector actuation is unknown at this time. It is thought that detector 2-X-AT-2979 was the cause of the actuation. A Work Request/Job Order was initiated to troubleshoot the cause of the spurious actuation. This work is scheduled to be performed on or about April 11, 1992. The plan is to change out a printed circuit board and the detector. The safety significance of this event is minimal as there was not an actual chlorine event. The Control Building ventilation automatically isolated as designed and redundant detectors were available to perform the safety function.

LERs 1-89-022, 1-86-003, 1-85-064, 1-85-057, 1-85-041 reported other similar occurrences.

EXPIRES: 4/30/92

ESTIMATED BURDEN FOR RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3170-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)				PAGE (3)
Brunswick Steam Electric Plant Unit 1	05000325	YE-R	SEQ NO.	REV NO.	2	
		92	008	0		

TEXT (if more space is required, use additional NRC Form 356A's) (17)

### INITIAL CONDITIONS

On March 2, 1992, Unit 1 was in hot shutdown and Unit 2 was operating at 78% power. The common Control Building ventilation was in normal operation.

### EVENT NARRATIVE

At approximately 1255, a chlorine detector which is located at the chlorine tank car loading area spuriously tripped. This detector is designed to provide annunciation in the Control Room and trip functions to isolate the Units 1 and 2 common control building heating, ventilation and air conditioning system. A Unit 2 Control Room annunciator was received for "Chlorine Loading Area Hi Chlorine". This was followed by the Control Building fans automatically tripping and the automatic closure of the normal makeup air damper for the Control Building.

The control operator verified that the automatic actions had occurred and performed required actions per the annunciator procedure. The abnormal operating procedure (AOP) for chlorine and toxic gas emergencies was entered. At 1256, the annunciator cleared and the Control Building damper automatically opened. Redundant chlorine detectors and a physical inspection of the area indicated no evidence of a chlorine release. At 1312, the AOP was exited. At approximately 1315, the Control Building ventilation was returned to normal.

### CAUSE OF EVENT

The cause of the spurious chlorine detector actuation is unknown at this time. It is thought that detector 2-X-AT-2979 was the cause of the actuation.

### CORRECTIVE ACTIONS

A Work Request/Job Order was initiated to troubleshoot the cause of the spurious actuation. This work is scheduled to be performed on or about April 11, 1992. The plan is to change out a printed circuit board and the detector.

### SAFETY ASSESSMENT

The safety significance of this event is minimal as there was not an actual chlorine event. The Control Building ventilation automatically isolated as designed and redundant detectors were available to perform the safety function.

### PREVIOUS SIMILAR EVENTS

LERs 1-89-022, 1-86-003, 1-85-064, 1-85-057, 1-85-041 similar events.

### EIIS COMPONENT IDENTIFICATION

#### System/Component

#### EIIS Code

CONTROL BUILDING ENVIRONMENTAL  
CONTROL SYSTEM

VI

DETECTOR

VI/DET