

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Brunswick Steam Electric Plant Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 3 2 5 1 OF 0 3

TITLE (4)
Failure to Fully Comply With
Liquid and Gaseous Effluent Monitoring Surveillance Requirements

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)									
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER								
0	8	0	6	8	4	8	4	0	1	5	0	0	1	0	3	2	5	1

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)															
POWER LEVEL (10)	0	7	6	20.402(b)		20.406(c)		50.73(a)(2)(iv)		73.71(b)							
				20.406(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(a)							
				20.406(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 365A)							
				20.406(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)									
				20.406(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)									
				20.406(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)									

LICENSEE CONTACT FOR THIS LER (12)

NAME
M. J. Pastva, Jr., Regulatory Technician

TELEPHONE NUMBER

AREA CODE

9 1 9 4 5 7 - 9 5 2 1

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

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 August 6, 1984, at 0200, personnel performing the channel functional test of the Unit 2 Main Service Water System effluent radiation monitor, determined the test procedure did not provide for technical specifications (T/S) required testing of the monitor downscale and high voltage supply low inoperable alarm functions. Subsequent reviews of other Units 1 and 2 gaseous and liquid effluent radiation monitor surveillance test procedures revealed similar problems relative to the units' common Main Off-Gas Stack Radiation Monitoring System, each unit's Drywell Air Sampling System and waste gas effluent monitors, and each unit's Turbine Building exhaust ventilation radiation monitor. At the time Unit 1 was operating at 76 percent power and Unit 2 was in a refuel/maintenance outage.

These procedural problems resulted from inadequate technical review of the procedures during their initial development. In addition, it was not recognized that the design configurations of the monitors prevents meeting the present T/S surveillance requirements.

Revision to T/S will be appropriately requested to allow the T/S surveillance requirements to accurately reflect the design configurations of the involved monitors. Also, appropriate revisions to plant test procedures will be made to ensure compliance with the applicable T/S. In the interim, required sampling of the involved radiological effluent process streams will be performed in accordance with the applicable T/S action statement.

8410150323 841004
PDR ADOCK 05000325
S PDR

IE22/11

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1) Brunswick Steam Electric Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 2 5 8 4 -	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		0 1 1 5 -	0 0 0 2		OF	0 3

TEXT (If more space is required, use additional NRC Form 365A's) (17)

On August 6, 1984, at 0200, plant Operations personnel performing the channel functional test of the Unit 2 Main Service Water System effluent radiation monitor, in accordance with PT-04.1.10, determined the PT did not provide for required testing of the monitor downscale and high voltage power supply-low inoperable functions. This was determined when the involved plant Operations personnel noted that the Unit 2 RTGB alarm annunciator Process Liquid Down-Inoperative was not reset by the PT test procedure after performing the sequence of steps which test for the monitor controls not in the Operate mode. The subject testing of the liquid effluent monitor, 2-D12-RM-K605, is covered in Technical Specification (T/S) Table 4.3.5.8-1, Notations (d)2 and 3. This testing is required to ensure the operability of appropriate Control Room Reactor Turbine Gauge Board (RTGB) alarm annunciations. The same PT procedural deficiency also applies to the corresponding Unit 1 Main Service Water System effluent radiation monitor, 1-D12-RM-K605. At the time of this discovery, Unit 1 was operating at 76 percent power and Unit 2 was in a refueling maintenance outage.

As a result of the identified PT procedural deficiency involving the 1(2)-D12-RM-K605 monitors, other PT procedures for T/S required surveillance testing of the gaseous and liquid effluent radiation monitors of Units 1 and 2 were reviewed to determine their technical adequacy. This review revealed the following PT procedural deficiencies common to both units:

1. PT-04.1.2, the channel functional test of the units' common Main Off-Gas Stack Radiation Monitoring System does not provide for meeting the surveillance requirements of T/S Table 4.3.5.9-1, Notation (d)2. These requirements specify a direct method to test for appropriate Control Room RTGB alarm annunciation due to an electrical circuit failure (high-voltage low condition) in the power supplies to the Monitoring System instruments D12-RM-4599-1, 2, and 3. Due to system design, failure of the power supplies to the instruments would be revealed to the Control Operator through RTGB alarm annunciation. This would occur within 5 minutes of loss of instrument counts as measured by the 4599-1, 2, and 3 instruments or by failure of the 4599-1, 2, and 3 instruments' once-per-12-hours automatic source check.
2. PT-04.1.6P, the channel functional test of the units' Reactor Building and Drywell Air Sampling Systems and waste gas effluent monitors does not provide for meeting the surveillance requirements of T/S Table 4.3.5.9-1, Notation (d)2, 3, and 4. These requirements specify a direct method to test for appropriate Control Room RTGB alarm annunciation due to an electrical circuit failure (high-voltage low condition) in the power supplies to the monitor instruments, an instrument downscale failure of the monitors' instruments, and the monitors' instrument controls not set in the instrument Operate mode. The instruments involved are the Reactor Building roof ventilation gaseous radiation monitor 1(2)-CAC-AQH-1264 and the primary containment drywell radiation monitors 1(2)-CAC-AQH-1260, 1261, and 1262.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

FACILITY NAME (1) Brunswick Steam Electric Plant Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 2 5	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		8 4	0 1 5	0	0 0 3	OF 0 3

TEXT: (If more space is required, use additional NRC Form 365A's) (17)

3. PT-04.2.1, the channel functional test of the units' Turbine Building exhaust ventilation radiation monitors, does not provide for meeting the surveillance requirements of T/S Table 4.3.5.9-1, Notation (d)2. These requirements specify a direct method to test for appropriate Control Room RTGE alarm annunciation due to an electrical circuit failure (high-voltage low condition) in the power supplies to the monitors' instruments, 1(2)-D12-RM-23L. Due to system design, failure of the power supplies to the monitors' instruments would be revealed to the Control Operator through Control Room RTGB alarm annunciation within 5 minutes on a loss of instrument counts as measured by the D12-RM-23L monitors' instruments or by failure of the instruments' once per 12 hours automatic source check.
4. PT-04.1.3, the channel functional test of the units' common Radiological Waste Liquid Effluent Radiation Monitoring System and test of the automatic isolation function of the system discharge valves, does not provide for meeting the surveillance requirements of T/S Table 4.3.5.9-1, Notation (d)2. These requirements specify a direct method to test for appropriate Control Room RTGB alarm annunciation due to an electrical circuit failure (high-voltage low condition) in the power supplies to the Monitoring System instrument D12-RM-K604. Due to system design, failure of the power supplies to the instrument would be revealed to the Control Operator through an appropriate instrument downscale/inoperable RTGB alarm annunciation.

The procedural deficiencies involving the subject PTs resulted from inadequate technical review of the PT procedures and the applicable T/S surveillance requirement requests during their initial development. In addition, it was not recognized that the design configuration of the monitors prevents meeting these T/S surveillance requirements added by the implementation of the Radiological Effluent Technical Specifications (RETS).

As a result of this event, the Brunswick Steam Electric Plant (BSEP) On-Site Nuclear Safety (ONS) group conducted a procedural audit of the Brunswick Surveillance Program as it pertains to the Radiological Effluent Technical Specifications (RETS). This audit determined that with the exception of the identified deficiencies the program is adequate in meeting the surveillance requirements of RETS.

Revisions to T/S will be appropriately requested to allow the T/S surveillance requirements to accurately reflect the design configurations of the subject monitoring instrumentation. Also, appropriate revision to plant test procedures will be made to ensure compliance with the applicable T/S. In the interim, required sampling of involved plant radiological effluent process streams will be performed as per applicable T/S action statements.



Carolina Power & Light Company

Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461-0429

October 4, 1984

FILE: B09-13510C
SERIAL: BSEP/84-2042

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

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1
DOCKET NO. 50-325
LICENSE NO. DPR-71
LICENSEE EVENT REPORT 1-84-15

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. In a letter dated August 28, 1984, Serial: BSEP/84-1862, it was conveyed that this report would be submitted by October 5, 1984. This report is in accordance with the format set forth in NUREG-1022, September 1983.

Very truly yours,

C. R. Dietz, General Manager
Brunswick Steam Electric Plant

MJP/sdl/LETS DL

Enclosure

cc: Mr. J. P. O'Reilly

IE22
11