

## LICENSEE EVENT REPORT U.S. NUCLEAR REGULATORY COMMISSION

CONTROL BLOCK: 1 2 3 4 5 6 1

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 N C B E P 2 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

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EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

0 2 During Unit No. 1 power operation concurrent with an ongoing Unit No. 2 shutdown, Augmented Off-Gas (AOG)

0 3 Building fire hose stations 2-AOG-57 through 62, were rendered inoperable due to valve body crack-rupturing

0 4 of AOG Fire Protection Standpipe System isolation valves 2-FP-V901 and V906. Subsequent walkdown inspections

0 5 of the Diesel Generator Building (DGB) Fire Protection Standpipe System revealed fire hose stations DGB-1

0 6 through 13 were rendered inoperable due to a valve body-to-bonnet gasket failure of standpipe isolation valve

0 7 2-FP-V129. These events did not affect the health and safety of the public.

0 8 Technical Specifications 3.7.7.4, 6.9.1.9b

0 9 A B 11 C 12 Z 13 V A L V E X 14 E 15 D 16  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

17 LER/RO REPORT NUMBER 8 3 21 22 - 23 0 9 6 24 26 / 27 0 3 28 29 L 30 - 31 0 32

ACTION TAKEN 18 Z 19 EFFECT ON PLANT 20 Z 21 SHUTDOWN METHOD 22 0 0 0 0 23 Y 24 N 25 A 26 K 0 7 5 27

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

1 0 Unseasonably low ambient outside air temperatures and a lack of heat tracing and/or insulation on the piping

1 1 of the subject valves resulted in freezing of subject valves' piping contents which caused the subject valve

1 2 failures. V901 and V906 were replaced, the V129 valve body-to-bonnet gasket was replaced, and the valves,

1 3 Part No. 162787, were returned to service. A permanent procedure which addresses plant freeze protection

1 4 requirements was developed and implemented to help preclude future similar events.

1 5 G 28 0 0 0 29 NA 30 A 31 Plant Surveillance 32  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 6 Z 33 Z 34 NA 35 NA 36  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 7 0 0 0 37 Z 38 NA 39  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 8 0 0 0 40 NA 41  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

1 9 Z 42 NA 43  
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

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NRC USE ONLY

NAME OF PREPARER M. J. Pastva, Jr.

PHONE: 919-457-9521

LER ATTACHMENT - RO #2-83-96

Facility: Unit No. 2

Event Date: December 26, 1983

During Unit No. 1 power operation concurrent with an ongoing Unit No. 2 shutdown, plant surveillance revealed that valve body crack-rupturing of Augmented Off-Gas (AOG) Building Fire Protection Standpipe System isolation valves 2-FP-V901 and V906 had occurred. The failure of these valve renders AOG Building fire hose stations 2-AOG-57 through 62 inoperable. Subsequent walkdown inspections of the Diesel Generator Building (DGB) Fire Protection Standpipe System revealed that standpipe isolation valve 2-FP-V129 was inoperable due to a valve body-to-bonnet gasket failure. The inoperability of V129 renders DGB fire hose stations DGB-1 through 13 inoperable. The inoperability of the subject fire hose stations is covered by Technical Specification 3.7.7.4. In addition, this report is submitted in accordance with Technical Specification 6.9.1.9b.

The cause of the subject valve failures is attributed to unseasonably low ambient outside air temperatures and a lack of heat tracing and/or insulation on the piping of the subject valves, which allowed the water to freeze and crack the valve.

Valves V901 and V906 were replaced, the V129 valve body-to-bonnet gasket was replaced, and the valves, Part No. 162287, were returned to service. In addition, the affected fire hose stations were returned to service. After completion of repairs to the affected valve, Engineering personnel conducted a visual inspection of the system to check for leaks. As none were found, no further repairs were considered necessary.

Following discovery of the subject valve failures, a plant special procedure was implemented to provide freeze protection for appropriate fire protection systems. A permanent plant procedure which addresses plant freeze protection requirements was developed and implemented to help preclude future similar events.



Carolina Power & Light Company

~~Page 9~~ ~~Aug 26~~  
Brunswick Steam Electric Plant  
P. O. Box 10429  
Southport, NC 28461-0429  
February 3, 1984

FILE: B09-13510C  
SERIAL: BSEP/84-0159

Mr. James P. O'Reilly, Administrator  
U. S. Nuclear Regulatory Commission  
Region II, Suite 3100  
101 Marietta Street N.W.  
Atlanta, GA 30303

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NO. 2  
DOCKET NO. 50-324  
LICENSE NO. DPR-62  
LICENSEE EVENT REPORT 2-83-96

Dear Mr. O'Reilly:

In accordance with Section 6.9.1.9b of the Technical Specifications for Brunswick Steam Electric Plant, Unit No. 2, the enclosed Licensee Event Report is submitted. This report was originally due to the Commission on January 25, 1984; however, in a letter dated January 25, 1984, Serial No. BSEP/84-0217, it was reported that this event would be reported by February 3, 1984.

Very truly yours,

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

MJP/kal/LETC1

Enclosure

cc: Mr. R. C. DeYoung  
NRC Document Control Desk

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Feb 22

