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Brunswick Nuclear Project
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November 1, 1989

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

BRUNSWICK STEAM ELECTRIC PLANT UNIT 1
DOCKET NO. 50-325
LICENSE NO. DPR-71
SUPPLEMENT TO LICENSEE EVENT REPORT 1-89-16

Gentlemen:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Supplemental Licensee Event Report is submitted. The original report, dated July 14, 1989, fulfilled the requirement for a written report within thirty (30) days of a reportable occurrence and was submitted in accordance with the format set forth in NUREG-1022, September 1983. This supplement is being issued to clarify the event description and corrective actions taken.

Very truly yours,

C J Blackmon Jr for

J. L. Harness, General Manager
Brunswick Nuclear Project

TH/mcg

Enclosure

cc: Mr. S. D. Ebneter
Mr. E. G. Tourigny
BSEP NRC Resident Office

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NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/88

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Brunswick Steam Electric Plant Unit 1	0 5 0 0 0 3 2 5	1 OF 0 6

TITLE (4)
Failure to Perform Technical Specification Required Stroke Time Testing on PCIS Valves

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(S)
0 6	1 4	8 9	8 9	0 1 6	0 1	1 1	0 1	8 9	BSEP Unit 2	0 5 0 0 0 3 2 4
										0 5 0 0 0

OPERATING MODE (9)	4	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		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)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Tony Harris, Specialist - Regulatory Compliance	9 1 9 4 5 7 - 2 0 3 8

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

On June 14, 1989, it was determined that some of the valves listed in Table 1 of this LER were not being tested in accordance with technical specifications; specifically, stroke time testing. EER 89-0195 was written to determine the adequacy of current testing and corrective actions necessary for any deficiencies.

As a result of this LER, it was determined that although the basis exists to delete some valves from the technical specifications, the valves will be stroke time tested in accordance with the technical specifications. In addition, it was noted that the 1-E11-F049 had not always met stroke time requirements. The root cause for this event was the failure to establish proper procedural controls for the technical specification required testing for these valves. Corrective actions include ensuring the F049 meets stroke time requirements and revising procedures to implement appropriate stroke time testing for the affected valves. The safety significance of this event is considered minimal.

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

Event

Failure to perform technical specification required stroke time testing on PCIS valves.

Initial Conditions

Unit 1 was in a maintenance outage for replacement of a core spray pump motor. Unit 2 was operating at 100% power. As a result of an audit of the Inservice Testing Program, it was identified that some valves were not being testing in accordance with technical specifications; specifically, stroke time testing.

Event Description

A study was performed in 1982 of the entire Primary Containment Isolation System (PCIS) (EIIS/JM) to determine which valves would be considered primary containment isolation valves. As a result of this report and a review of the current listing of valves in the technical specifications, a technical specification change was initiated to amend the list of PCIS valves. The listing of valves in the technical specifications was not all inclusive, in that it only contained those primary containment valves which had an automatic closure function. A Technical Specification Interpretation (TSI) was initiated and approved to reflect the results of the study, and to provide controls for PCIS valves. The TSI was meant to not only include those valves listed in technical specifications but also the remaining manual, remote manual, and automatic valves required to be identified as primary containment valves per applicable codes and regulations. The TSI initially listed Engineering Procedure (ENP)-16, Procedure For Administrative Control of Inservice Inspection Activities, as the controlling document. The reference was subsequently changed from ENP-16 to System Description (SD)-12, Primary Containment Isolation System (including steam leak detection and reactor instrument penetrations).

As a result of using SD-12 as the document to implement technical specification requirements for primary containment isolation valves, testing on some of the valves listed in Table 1 had not been adequately addressed. These valves have also been deleted from the FSAR as PCIS valves.

The valves listed in Technical Specification Table 3.6.3-1 are referenced for several specific tests, including:

T/S Reference	Requirement
3.6.1.2b/4.6.1.2d	10CFR50 Appendix J leak test (LLRT) each refueling, and total containment leakage maintained less than 0.6La.

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4.6.3.2 — 18-month tests to verify that the valve will move to its isolation position upon initiation of its containment isolation signal.

4.6.3.3 — Quarterly valve stroke timing in accordance with the ASME Boiler and Pressure Vessel Code, Section XI, to meet the times given in table 3.6.3-1. Requires valves to be timed closed.

Engineering Evaluation Report (EER) 89-0195 was written to determine the basis for compliance for the valves listed in Table 1 of this LER to the technical specifications, the adequacy of current testing, and corrective action for deficiencies.

The results of the EER are summarized below:

I. Appendix J Testing (Tech. Spec. 3.6.1.2b/4.6.1.2d)

The E41-F041 valve is in series with the E41-F042 on the HPCI torus suction line. The penetration for this line would always remain submerged, providing no direct communication with either the reactor coolant pressure boundary or the containment atmosphere. Thus Appendix J local leak rate testing is not required for the F041 or the F042. The E41-F042 valve is, however, leak rate tested to ensure leak tight integrity in accordance with the requirements of ASME Code Section XI.

The E11-F040, E11-F049, E11-F079A/B and E11-F080A/B isolate branches off the RHR loops. Containment isolation valves are provided for the RHR loops to isolate the respective loop in case of failure. Since these branch lines are not a part of the reactor coolant pressure boundary and do not communicate with primary containment except through other containment isolation valves, they are not considered containment isolation valves. Because these valves are not containment isolation valves, they need not be tested per Appendix J.

The E11-F022 and F023 receive Appendix J testing.

II. Tech. Spec. 4.6.3.2 Logic Testing

Maintenance Surveillance Tests (MST)-HPCI41R and CAC41R satisfy this Technical Specification requirement for logic testing of the E41-F041 and F042, and E11-F040, F049, F079A/B and F080A/B valves.

E11-F022/F023 are deenergized and therefore logic testing is irrelevant.

III. 4.6.3.3 Section XI Stroke Timing

EER 89-0195 determined that:

1. Controls were not in place to ensure that technical specification requirements for stroke time testing would continue to be met.

2. The E41-F041 was being timed open but not closed. The valve was being cycled in the closed direction as a part of ASME Section XI quarterly testing.

3. Because the Table 1 valves (except for the E11-F022, F023, and E41-F042 valves) had not been considered primary containment isolation valves, the times given in Technical Specification (TS) Table 3.6.3-1 had not been considered for establishing valve stroke time acceptance criteria. A comparison of the previous stroke times with the times in the Technical Specification table showed, however, that only the 1-E11-F049 may have exceeded the Technical Specification time limits.

4. The stroke time limit acceptance criteria for the 1-E11-F040 was required to be decreased for Technical Specification compliance, although the valve stroke time tested within acceptable limits.

Event Cause

The root cause of this event was the failure to establish proper procedural controls for Technical Specification required testing for the valves listed in Table 1 of this LER.

In addition, personnel reviewing the requirements of the technical specification testing for these valves improperly determined that some of the testing for these valves, specifically stroke time testing, was not required due to the pending technical specification amendment.

Corrective Actions

For Item 1, Inadequate controls, the following action was taken:

ENP-16.1, Attachment 7, Valve Acceptance Criteria Basis Sheets, have been updated to incorporate the technical specification limits for the valves stated herein.

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For Item 2, E41-F041, the following actions were taken:

The 2-E41-F041 was stroke timed closed and verified to successfully meet the Technical Specification time.

The 1-E41-F041 was placed under tracking LCO to stroke time closed prior to Unit 1 startup. This action was successfully completed on 6/22/89.

For Item 3, not using TS Table 3.6.3-1 for acceptance criteria, the following action was taken:

The 1-E11-F049 valve was put under a tracking Limiting Condition for Operation (LCO) to reduce the present stroke time and successfully stroke time this valve. This action was completed on 6/28/89, prior to Unit 1 restart from a Core Spray Pump Motor Outage.

For Item 4, E11-F040, Acceptance Criteria, the following action was taken:

PT-08.2.2b and PT-09.2 have been revised to implement technical specification stroke time testing and/or limiting times for E11-F049, E41-F041, and 1-E11-F040.

Although the basis exists to delete the stroke time testing requirements of the Table 1 valves (except for the E11-F022 and F023 and the E41-F042 valves), the valves have been put back into the testing program and will be controlled in accordance with appropriate rules and regulations.

A review of current Technical Specification Interpretations did not reveal other similar cases of inadvertent noncompliance with technical specification requirements.

Based on the corrective actions taken to date, no further corrective actions are considered necessary for this event.

Event Assessment

A review of this event has determined that the event would not have had any greater safety significance under any other reasonable or credible conditions, in that the valves not tested are not required to be tested by applicable codes and regulations. The problem was that the testing was deleted prior to review and approval of the proposed amendment by the NRC staff.

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TABLE 1

Technical Specification PCIS Valves Not Being Fully Tested

Valve	Function
E41-F041	HPCI Torus Suction
E41-F042	HPCI Torus Suction
E11-F079A	RHR Sample Valve
E11-F079B	RHR Sample Valve
E11-F080A	RHR Sample Valve
E11-F080B	RHR Sample Valve
E11-F049	RHR Drain to Radwaste
E11-F040	RHR Drain to Radwaste
E11-F023	RHR Head Spray
E11-F022	RHR Head Spray