

# CATEGORY 1

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 VERRILLI, M.      Carolina Power & Light Co.  
 DONAHUE, J.W.      Carolina Power & Light Co.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 98-003-00: on 980129, failure to perform shutdown margin calculation required by TS surveillance requirements occurred. Caused by ambiguity in TS 3.1.3.1.c. Procedures revised. W/980227 ltr.

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NOTES: Application for permit renewal filed.

05000400

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Carolina Power & Light Company  
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PO Box 165  
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FEB 27 1998

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

Serial: HNP-98-026  
10CFR50.73

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1  
DOCKET NO. 50-400  
LICENSE NO. NPF-63  
LICENSEE EVENT REPORT 98-003-00

Sir or Madam:

In accordance with 10CFR50.73, the enclosed Licensee Event Report (LER) is submitted. This LER describes the failure to perform a shutdown margin calculation as required by Technical Specification surveillance requirements.

Sincerely,

J. W. Donahue  
Director of Site Operations  
Harris Plant

MV

Enclosure

c: Mr. J. B. Brady (HNP Senior NRC Resident)  
Mr. L. A. Reyes (NRC Regional Administrator, Region II)  
Mr. S. C. Flanders (NRC - NRR Project Manager)

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## 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: 50.0 HRS. REPORTED LESSONS LEARNED ARE  
INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY.  
FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND  
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.

FACILITY NAME (1)

Harris Nuclear Plant Unit-1

DOCKET NUMBER (2)

50-400

PAGE (3)

1 OF 3

TITLE (4)

Failure to perform shutdown margin calculation required by Technical Specification 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 NAME	DOCKET NUMBER
1	29	98	98	-- 003	-- 00	2	27	98	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
1			20.2201(b)		20.2203(a)(2)(v)		<input checked="" type="checkbox"/>		50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)			20.2203(a)(1)		20.2203(a)(3)(i)				50.73(a)(2)(ii)	50.73(a)(2)(x)
100%			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)				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

Michael Verrilli Sr. Analyst - Licensing

TELEPHONE NUMBER (Include Area Code)

(919) 362-2303

## 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)

YES

(If yes, complete EXPECTED SUBMISSION DATE).

☒

NO

EXPECTED  
SUBMISSION  
DATE (15)

MONTH

DAY

YEAR

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

On January 29, 1998, with the plant at approximately 100% power in Mode 1, the Shutdown Bank "C" control rods were placed on the DC Hold Bus to allow for maintenance. This maintenance involved replacing a power supply card in the normal rod control power cabinet.

The Operations shift crew in the main control room reviewed the appropriate Technical Specifications (TS) and determined that the 36 hour LCO requirements of TS 3.1.3.1 "Movable Control Assemblies - Group Height" were applicable for this condition. TS 3.1.1.1 "Shutdown Margin - Modes 1-2" was also reviewed by the Shift Technical Advisor during this process and was considered to be met, with no need to perform the associated surveillance requirements, which includes calculating shutdown margin. Plant procedures were also addressed in the shift crew's review of this condition and did not identify the need to perform a shutdown margin calculation.

During the evening shift turnover process on January 29, 1998, the on-coming Superintendent-Shift Operations observed that a shutdown margin calculation had not been performed within 1 hour as required by TS surveillance requirement 4.1.1.1.a. He initiated the performance of this calculation; however, 1 hour and 19 minutes had elapsed since placing the shutdown bank "C" control rods on the DC Hold Bus, thus resulting in a violation of TS.

The cause of this event was ambiguity in TS 3.1.3.1.c and its relationship to the surveillance requirements of TS 4.1.1.1.a. This led to the failure of the on-shift Operations crew to perform a shutdown margin calculation within one hour after placing the shutdown bank "C" control rods on the DC Hold Bus. The procedures referenced during this event were also deficient since they did not clearly direct operators to perform the required shutdown margin calculation. An additional cause was the failure to resolve the TS ambiguity when previously identified in September 1997. Corrective actions included generation of an Operations Night Order, which instructs Operators to perform a shutdown margin calculation when a control rod is declared inoperable and a memorandum emphasizing sensitivity and timely resolution of matters related to TS. Additional actions will include appropriate training and procedure enhancements to prevent recurrence.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (5)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Shearon Harris Nuclear Plant - Unit #1	50-400	98	003	00	2 OF 3

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

**EVENT DESCRIPTION:**

On January 29, 1998, with the plant at approximately 100% power in Mode 1, the Shutdown Bank "C" control rods were placed on the DC Hold Bus at 1733 hours to allow for maintenance. This maintenance involved replacing a power supply card in the normal rod control power cabinet. Upon receipt of the expected rod control urgent failure alarm, Annunciator Panel Procedure (APP-ALB-013, Rod Control Urgent Alarm) and Abnormal Operating Procedure (AOP-001, Rod Control Malfunction) were reviewed by the shift reactor operator. The procedures reviewed did not specifically require the performance of a shutdown margin calculation.

The Operations shift crew in the main control room reviewed the appropriate Technical Specifications (TS) and determined that the 36 hour LCO requirements of TS 3.1.3.1 "Movable Control Assemblies - Group Height" were applicable for this condition. TS 3.1.1.1 "Shutdown Margin - Modes 1-2" was also reviewed by the Shift Technical Advisor (STA) during this process and was considered to be met. Based on this, the STA and shift crew did not review the associated surveillance requirements of 4.1.1.1.a, which includes calculating the shutdown margin.

During the evening shift turnover process on January 29, 1998, the on-coming Superintendent-Shift Operations observed that a shutdown margin calculation had not been performed within 1 hour as required by TS 4.1.1.1.a for an inoperable control rod(s). He initiated the performance of this calculation; however, 1 hour and 19 minutes elapsed prior to completing the shutdown margin calculation after placing the shutdown bank "C" control rods on the DC Hold Bus, thus resulting in a violation of TS.

**CAUSE:**

The cause of this event was ambiguity in TS 3.1.3.1.c and its relationship to the surveillance requirements of TS 4.1.1.1.a. This led to the failure of the on-shift Operations crew to perform a shutdown margin calculation within one hour after placing the shutdown bank "C" control rods on the DC Hold Bus. The procedures referenced during this event (APP-ALB-013 and AOP-001) were also deficient since they did not clearly direct operators to perform the required shutdown margin calculation.

An additional cause for this event was the failure to promptly resolve the TS ambiguity when it was previously identified by Operations personnel in September 1997. A plant Condition Report was generated to document the TS compliance concern, but prompt corrective actions were not taken to provide timely resolution of the matter. Had Operators been given additional shutdown margin calculation guidance immediately following identification of the concern in September 1997, the TS surveillance requirement violation described in this LER would probably have been avoided.

**SAFETY SIGNIFICANCE:**

There were no safety consequences associated with this event. Control rods remained above the low insertion limit while shutdown bank "C" rods were on the DC Hold Bus. Therefore, adequate shutdown margin existed. A shutdown margin calculation was completed 19 minutes after the 1 hour required surveillance period. The shutdown margin was unaffected by the rod bank being placed on the DC Hold Bus since all rods remained capable of being tripped if needed.

This event is being reported as a condition prohibited by TS per 10CFR50.73.a.2.i.B.

**PREVIOUS SIMILAR EVENTS:**

There have been no previous LERs submitted related to the failure to perform a shutdown margin calculation after placing control rods on the DC Hold Bus.

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Shearon Harris Nuclear Plant - Unit #1	50-400	98	.. 003	.. 00	3 OF 3	

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

**CORRECTIVE ACTIONS COMPLETED:**

1. An Operations Night Order was issued on February 13, 1998, which instructs operators to perform a shutdown margin calculation per TS 4.1.1.1.1.a when a control rod is declared inoperable.
2. A memorandum was issued by the Plant General Manager on February 26, 1998, to reinforce the standard and expectation of plant personnel to maintain a high level of sensitivity towards plant safety and compliance with our Technical Specifications. This memorandum also emphasized timely resolution of questions or concerns related to Technical Specifications.

**CORRECTIVE ACTIONS PLANNED:**

1. Operations procedures APP-ALB-103, AOP-001 and OP-104 will be revised to clarify shutdown margin calculation requirements. These revisions will be completed by June 30, 1998.
2. Real Time Training for this event will be provided to available licensed operators by March 30, 1998.