

CATEGORY 1

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 FACIL: 50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
 AUTH. NAME AUTHOR AFFILIATION
 VERRILLI, M. Carolina Power & Light Co.
 DONAHUE, J.W. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 96-021-00: on 961107, mode 1 at 100% power, containment
 isolation valve 1SP-208 was declared operable. Caused by
 incorrect interpretation of ASME. Operations personnel will
 be trained & completed by 970330.W/961209 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: Application for permit renewal filed. 05000400

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Carolina Power & Light Company
Harris Nuclear Plant
PO Box 165
New Hill NC 27562

DEC 9 1996

U.S. Nuclear Regulatory Commission
ATTN: NRC Document Control Desk
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Serial: HNP-96-204
10CFR50.73

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1
DOCKET NO. 50-400
LICENSE NO. NPF-63
LICENSEE EVENT REPORT 96-021-00

Sir or Madam:

In accordance with Title 10 to the Code of Federal Regulations, the enclosed Licensee Event Report is submitted. This report describes a condition involving inadequate post maintenance testing following repairs on a containment isolation valve.

Sincerely,

J. W. Donahue
Director of Site Operations
Harris Plant

MV

Enclosure

c: Mr. J. B. Brady (HNP Senior NRC Resident)
Mr. S. D. Ebnetter (NRC Regional Administrator, Region II)
Mr. N. B. Le (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
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TITLE (4)
Inadequate post maintenance testing following repairs on containment isolation valve 1SP-208.

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
11	7	96	96	-- 021	-- 0	12	9	96		05000
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9) 1	POWER LEVEL (10) 100%	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)								
		20.2201(b)	20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)	50.73(a)(2)(viii)				
		20.2203(a)(1)	20.2203(a)(3)(i)		50.73(a)(2)(ii)	50.73(a)(2)(x)				
		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
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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)		
YES (If yes, complete EXPECTED SUBMISSION DATE.)	<input checked="" type="checkbox"/>	NO		MONTH	DAY	YEAR

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

On November 7, 1996, with the plant operating in mode 1 at 100% power, containment isolation valve 1SP-208 was declared operable following replacement of the reed switch position indication assembly. This replacement was necessary to resolve erratic valve position indication. Post-maintenance stroke time testing was performed on 1SP-208 in accordance with the applicable surveillance test procedure prior to declaring the valve operable. However, during subsequent documentation review, it was discovered that remote position indication testing should have also been performed to satisfy ASME Code Section XI and Technical Specification requirements. This valve is a fully enclosed Target Rock solenoid operated valve, which prevents external observation of stem movement.

Investigation identified additional previous instances where remote position indication tests were not performed following maintenance on valves of this type. These previous instances, as well as the current event, were caused by an incorrect interpretation of ASME Code Section XI post maintenance testing requirements. Corrective actions will include procedure revisions and training for appropriate personnel to ensure a clear understanding of required post maintenance testing.



**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	96	021	00	2 OF 3

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

EVENT DESCRIPTION:

On November 7, 1996, with the plant operating in mode 1 at 100% power, post maintenance testing was completed for Post Accident Sampling System, Containment Isolation Valve (1SP-208, EIS Code: JM) following replacement of the reed switch position indication assembly to correct erratic valve position indication. This valve is a fully enclosed Target Rock solenoid operated valve, which prevents external observation of stem movement. The post maintenance testing that was completed consisted of a stroke time verification utilizing control switch indication in accordance with the Sampling System ISI Valve Test - Quarterly Interval Operations Surveillance Test (OST-1038). Following this test, the valve was declared operable at 0213 hours. During subsequent documentation review, Operations personnel questioned the need for additional testing for 1SP-208. Later that morning, Engineering personnel determined that post maintenance testing should have included a remote position indication verification to satisfy ASME Code Section XI requirements prior to declaring the valve operable. Based on this determination, 1SP-208 was declared inoperable and deactivated at 1535 hours on November 7, 1996.

1SP-208 was closed prior to the reed switch replacement and remained closed throughout the above sequence except for during the stroke time test. To confirm actual position of 1SP-208, verify proper stem movement, and satisfy the remote position indication verification requirement, radiography was performed with the valve in the open and shut positions on November 15, 1996.

Investigation identified additional previous instances where remote position indication tests were not performed following maintenance on solenoid operated valves such as 1SP-208. In each of these cases subsequent local leak rate tests verified proper valve position.

CAUSE:

This event, as well as the additional testing deficiencies identified during investigation, were caused by an incorrect interpretation of ASME Code Section XI post maintenance testing requirements. This incorrect interpretation allowed stroke time verifications to satisfy post maintenance testing requirements when the maintenance performed did not affect the valve's seating characteristics. Associated procedures also failed to provide adequate guidance to ensure proper testing.

SAFETY SIGNIFICANCE:

There were no adverse safety consequences as a result of this event. During the time period that 1SP-208 was incorrectly considered to be operable, the valve was shut, which completes its containment isolation safety function. Radiography performed on November 15, 1996 confirmed that 1SP-208 was shut. For the additional containment isolation valves that did not receive remote position verifications following maintenance, subsequent local leak rate tests have verified their ability to isolate flow.

This condition is being reported in accordance with 10CFR50.73.a.2.i as a violation of Technical Specification 4.0.5.

PREVIOUS SIMILAR EVENTS:

There have been no previous similar events reported to the NRC pertaining to inadequate ISI program post maintenance testing. A similar occurrence was documented on an internal condition report in March of 1990 which also involved returning a solenoid operated containment isolation valve to service without performing the required post maintenance testing. However, corrective actions for this condition were narrowly focused on PMTR assignment responsibilities, did not clarify ISI testing requirements and thus, did not prevent recurrence.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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

CORRECTIVE ACTIONS COMPLETED:

1. A self assessment was performed on the ISI program to ensure completeness in meeting ASME Section XI requirements for solenoid operated valves. This was completed on November 11, 1996 and verified that adequate testing has been performed after maintenance on solenoid operated valves.
2. Information regarding proper post maintenance testing requirements was placed in an Operations Night Order to ensure that oncoming shift personnel are aware of these requirements.

CORRECTIVE ACTIONS PLANNED:

1. Appropriate Engineering (ISI individuals) and Operations personnel will be trained to clarify post maintenance testing requirements. This training will include a review of this LER and will be completed by March 30, 1997.
2. The following procedures will be revised to ensure appropriate post maintenance testing:
 - PLP-400, "Post Maintenance Testing Program" (completion target date 1/24/97)
 - EST-212, "Type C Local Leak Rate Tests" (completion target date 3/7/97)
 - OST-1062 "Sampling, Chemical Addition and Main Steam Drain Systems ISI Valve Test and Remote Position Indication Test - Refueling Interval" (completion target date 2/21/97)