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August 24, 2005

Docket Nos.: 50-321

NL-05-1460

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555-0001

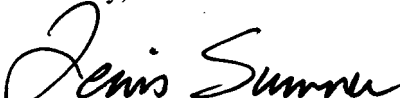
Edwin I. Hatch Nuclear Plant  
Licensee Event Report 1-2005-001  
Failure to Use an Appendix J, Option B, Type C Tested Component to  
Isolate Primary Containment

Ladies and Gentlemen:

Enclosed you will find a Hatch Unit 1 Licensee Event Report concerning the failure to use an Appendix J tested valve to isolate a primary containment penetration during repair activities.

This letter contains no NRC commitments. If you have any questions, please advise.

Sincerely,

  
H. L. Sumner, Jr.

HLS/OCV/sdl

Enclosure: LER 1-2005-001

cc: Southern Nuclear Operating Company  
Mr. J. T. Gasser, Executive Vice President  
Mr. G. R. Frederick, General Manager – Plant Hatch  
RTYPE: CHA02.004

U. S. Nuclear Regulatory Commission  
Dr. W. D. Travers, Regional Administrator  
Mr. C. Gratton, NRR Project Manager – Hatch  
Mr. D. S. Simpkins, Senior Resident Inspector – Hatch

## LICENSEE EVENT REPORT (LER)

(See reverse for required number of  
digits/characters for each block)

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [infocollects@nrc.gov](mailto:infocollects@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOF-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. FACILITY NAME Edwin I. Hatch Nuclear Plant - Unit 1	2. DOCKET NUMBER 05000-321	3. PAGE 1 OF 4
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4. TITLE Failure to Use an Appendix J, Option B, Type C Tested Component to Isolate Primary Containment Penetration
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5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER(S)
6	29	2005	2005	001	0	8	24	2005		05000
									FACILITY NAME	DOCKET NUMBER(S)
										05000

9. OPERATING MODE  Mode 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § : (Check all that apply)			
	20.2201(b)	20.2203(a)(3)(i)	50.73(a)(2)(i)(C)	50.73(a)(2)(vii)
	20.2201(d)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(A)
	20.2203(a)(1)	20.2203(a)(4)	50.73(a)(2)(ii)(B)	50.73(a)(2)(viii)(B)
10. POWER LEVEL  100%	20.2203(a)(2)(i)	50.36(c)(1)(i)(A)	50.73(a)(2)(iii)	50.73(a)(2)(ix)(A)
	20.2203(a)(2)(ii)	50.36(c)(1)(ii)(A)	50.73(a)(2)(iv)(A)	50.73(a)(2)(x)
	20.2203(a)(2)(iii)	50.36(c)(2)	50.73(a)(2)(v)(A)	73.71(a)(4)
	20.2203(a)(2)(iv)	50.46(a)(3)(ii)	50.73(a)(2)(v)(B)	73.71(a)(5)
	20.2203(a)(2)(v)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(C)	OTHER
	20.2203(a)(2)(vi)	X 50.73(a)(2)(i)(B)	50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER	
FACILITY NAME Edwin I. Hatch / Kathy A. Underwood, Performance Analysis Supervisor	TELEPHONE NUMBER (Include Area Code) (912) 537-5931

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

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

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

On 7/01/2005 at 1545 ET, Unit 1 was in the Run Mode at an approximate power level of 2793 CMWT (100 percent rated thermal power). At that time, it was determined that on 6/29/2005 a valve used to isolate primary containment during work on component 1P70-N003 (a barrier for primary containment penetration 22) was not tested in accordance with Technical Specification 3.6.1.3 Condition C. This resulted in a condition prohibited by the plant's Technical Specifications. Component 1P70-N003 associated with penetration 22 functions as a single barrier for the penetration and when it is INOPERABLE it is governed by Technical Specification 3.6.1.3 Condition C. The work associated with 1P70-N003 was completed and the clearance associated with the work restored on 6/30/2005 and verified to be leak tight the next day.

The controls contained in two procedures associated with this event were determined to be inadequate in that they did not ensure the appropriate personnel reviewed the work package and they did not clearly identify that the safety related containment function for this work activity would be affected. These procedures will be revised to strengthen the controls that were identified as being inadequate during the investigation of this event.

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

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System codes appear in the text as (EIS Code XX).

DESCRIPTION OF EVENT

On 4/29/2005, a problem was identified with instrument 1P70-N003 following a routine calibration. This instrument provides annunciation to the Main Control Room if the nitrogen supply pressure to the drywell pneumatics is out of specifications. A Work Order (WO) was generated to replace 1P70-N003-TV-1. The WO was scheduled to be worked June 28, 2005. The WO was planned, reviewed, and packaged and the associated tag out for this work was drafted, reviewed and approved. Valve 1P70-N003-TV-1 was actually removed June 29, 2005 for replacement.

On 7/01/2005 at 1545 ET, Unit 1 was in the Run Mode at an approximate power level of 2793 CMWT (100 percent rated thermal power). At that time, it was determined that the valve used to isolate primary containment (EIS Code JM) on 6/29/2005 during work on component 1P70-N003 (a barrier for primary containment penetration 22) was not in accordance with Technical Specification (TS) 3.6.1.3 Condition C. This resulted in a condition prohibited by the plant's Technical Specifications. Component 1P70-N003 associated with penetration 22 functions as a single barrier for the penetration and is therefore governed by Technical Specification 3.6.1.3 Condition C. The Bases for TS 3.6.1.3 Condition C states in part that if the inoperable valve is required to be Type C tested per 10 CFR 50, Appendix J, Option B, the device chosen to isolate the penetration must also be subjected to Appendix J, Option B, Type C testing. The valve used to isolate the work activities associated with 1P70-N003 was valve 1P70-F133 and this valve is not subjected to Appendix J, Option B, Type C testing. The work on component 1P70-N003 was completed and the clearance restored on 6/30/2005. The duration of the work and inspection activities exceeded the Required Action Statement times associated with TS 3.6.1.3 Condition C.

The WO for this activity was stamped "LLRT Review Required." The LLRT review was performed without identifying any concerns for performing this activity in Modes 1, 2, or 3. The LLRT review process does not require an Operations evaluation if the WO is scheduled to be performed during Modes 1, 2 or 3.

The clearance review for operation impact was performed by a System Operator, which is a non-licensed position. There were two questions required to be answered by this review that were relevant to this event. One question was does the Technical Specifications allow the equipment to be out of service with other activities scheduled during this time? The second question was, can the Clearance be performed in the current or planned Plant Status? These questions were intended to establish barriers that would prevent the plant from operating in a condition prohibited by the Technical Specifications. This form was completed by a System Operator that was not trained in Licensing or Technical Specifications. It should be noted however, that the Tagout Coordinator, a licensed SRO, did review the tagout without recognizing that the isolation valve being used by this clearance (1P70-F133) was not an Appendix J, Option B, Type C tested component.

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

The Nitrogen Supply to the Drywell Pneumatics was still in service and pressurized to approximately 95 psig with no apparent leakage past isolation valve 1P70-F133. The piping downstream of the 1P70-F133 was open after the removal of 1P70-003-TV-1 and the workers performing the work did not observe any nitrogen leaking past 1P70-F133. As a result, primary containment was never actually open to the environment during this evolution.

CAUSE OF EVENT

The evaluations for the impact of performing this evolution on line were inadequate.

The requirement for the WO to have an LLRT review and to be worked while the plant was operating in Mode 1 did not specifically trigger an operations review. The planners and schedulers did not realize that performing WO 1051076502 in Mode 1 would impact Primary Containment.

The Operations Department Instruction required evaluations that were beyond the knowledge level or training of the System Operator performing the evaluation.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This report is required by 10 CFR 50.73(a)(2)(i)(B) because the plant entered a condition that was prohibited by the plant's Technical Specifications. Specifically, Technical Specification Bases for 3.6.1.3 Condition C requires in part that;

"... with one PCIV inoperable, except due to leakage not within limits, the inoperable valve must be restored to OPERABLE status or the affected penetration flow path must be isolated. The method of isolation must include the use of at least one isolation barrier that cannot be adversely affected by a single active failure. Isolation barriers that meet this criterion are a closed and de-activated automatic valve, a closed manual valve, and a blind flange. A check valve may not be used to isolate the affected penetration. The device must be subjected to leakage testing requirements equivalent to the inoperable valve, except for inoperable valves in the Core Spray and Low Pressure Coolant Injection (LPCI) systems. For example: 1) if the inoperable valve is required to be Type C tested per 10 CFR 50, Appendix J, Option B, the device chosen to isolate the penetration must also be subjected to Appendix J, Option B, Type C testing."

The valve used to isolate the work activities associated with 1P70-N003 was valve 1P70-F133 and this valve was not subjected to Appendix J, Option B, Type C testing. The work on component 1P70-N003 was completed and the clearance restored on 6/30/2005. The duration of the work activity exceeded the Required Action Statement times associated with TS 3.6.1.3 Condition C resulting in the plant being in a condition prohibited by the plant's Technical Specifications. Although the work activity was actually performed within the Required Action Times associated with TS 3.6.1.3, the work was not inspected and tested until after the

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

Required Action Times had been exceeded. Nevertheless, the inspections confirmed the work had been done satisfactorily and thus the valve was leak tight.

During this event primary containment was maintained by the closure of valve 1P70-F133. The leak tightness of this valve was assured in that the Nitrogen Supply to the Drywell Pneumatics was still in service and pressurized to approximately 95 psig with no apparent leakage past isolation valve 1P70-F133. Therefore, it is concluded this event had no adverse impact on nuclear safety. This analysis is applicable to all power levels.

### CORRECTIVE ACTIONS

The repair work was verified to be leak tight on July 1, 2005 in accordance with the provisions of 10 CFR 50 Appendix J Option B.

The appropriate personnel associated with the approval of this work activity were counseled concerning this event.

A requirement has been established for Operations to review work orders performed during Modes 1,2 or 3 on LLRT/ILRT components that may affect containment.

The Operations Department Instruction has been revised to require a currently licensed person to evaluate and complete any checklist item that addresses licensing issues if safety related equipment is involved with the work or tagout.

### ADDITIONAL INFORMATION

Other Systems Affected: No systems other than those already mentioned in this report were affected by this event.

Failed Components Information: No failed components directly caused or resulted from this event.

Commitment Information: This report does not create any permanent licensing commitments.

Previous Similar Events: There has not been any previous similar event in the past two years in which a primary containment isolation valve repair was not isolated with a Tech Spec compliant device.