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

Serial: HNP-04-064  
10CFR50.73

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1  
DOCKET NO. 50-400/LICENSE NO. NPF-63  
LICENSEE EVENT REPORT 2004-001-00

Ladies and Gentlemen:

The enclosed Licensee Event Report 2004-001-00 is submitted in accordance with 10 CFR 50.73. This report describes inoperability of the "A" Containment Hydrogen Analyzer.

Please refer any questions regarding this submittal to Mr. John Caves, Supervisor – Licensing/Regulatory Programs, at (919) 362-3137.

Sincerely,

  
B. C. Waldrep  
Plant General Manager  
Harris Nuclear Plant

BCW/rgh

Enclosure

c: Mr. R. A. Musser (HNP Senior NRC Resident)  
Mr. C. P. Patel (NRC-NRR Project Manager)  
Mr. L. A. Reyes (NRC Regional Administrator, Region II)

IE22

Estimated burden per response to comply with this mandatory information 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 Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

**LICENSEE EVENT REPORT (LER)**

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

<b>1. FACILITY NAME</b> Harris Nuclear Plant – Unit 1	<b>2. DOCKET NUMBER</b> 05000400	<b>3. PAGE</b> 1 OF 3
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**4. TITLE**  
"A" Containment Hydrogen Analyzer Inoperable

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
11	17	2003	2004	001	00	04	12	2004	FACILITY NAME	DOCKET NUMBER

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

**12. LICENSEE CONTACT FOR THIS LER**

<b>NAME</b> Robert Hill – Lead Licensing Engineer	<b>TELEPHONE NUMBER (Include Area Code)</b> (919) 362-2033
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**13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT**

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
D	IP	AT	Whittaker	Y					

<b>14. SUPPLEMENTAL REPORT EXPECTED</b>	<b>15. EXPECTED SUBMISSION DATE</b>	MONTH	DAY	YEAR
YES (if yes, complete EXPECTED SUBMISSION DATE) X NO				

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

Harris Nuclear Plant (HNP) personnel performed surveillance testing of the "A" Containment Hydrogen Analyzer on February 9, 2004. During the test, the analyzer did not respond as expected. An investigation identified that leads had been reversed during the last performance of the surveillance test on November 17, 2003, resulting in the equipment being inoperable for a period of time greater than allowed by technical specifications.

Immediate corrective action restored the leads to their correct configuration and performed the surveillance test to restore the equipment to operable condition. The 'B' Containment Hydrogen Analyzer was also verified to be operable.

The root cause of the event is that the procedure did not clearly identify the specific leads to be lifted during the performance of the test, which resulted in the wrong leads being lifted and incorrectly restored at the completion of the test. Corrective actions included revising the procedure to clearly identify which leads are to be lifted and to ensure the hydrogen analyzer is functional after termination of the wiring during restoration from the test.

**LICENSEE EVENT REPORT (LER)**

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Harris Nuclear Plant – Unit 1	05000400	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2004	001	00	

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

**I. DESCRIPTION OF EVENT**

Every 92 days, Technical Specification Surveillance Requirement 4.6.4.1. requires demonstration that the Containment Hydrogen Monitors [IP] are operable. Harris Nuclear Plant (HNP) personnel performed surveillance testing of the 'A' Containment Hydrogen Analyzer on February 9, 2004 with the plant in Mode 1 at 100% power. During the test, the analyzer did not respond as expected. An investigation identified that leads had been reversed during the last performance of the surveillance test on November 17, 2003, resulting in the equipment being inoperable for a period of time greater than allowed by technical specifications. Immediate corrective action included restoring the leads to their correct configuration and performing the surveillance test to restore the equipment to an operable condition. The 'B' Containment Hydrogen Analyzer was also verified to be operable.

Both of the technicians involved with the November 17, 2003 test were experienced, trained and qualified to perform the test; however, neither had previously performed the steps in the test that were performed incorrectly and resulted in the inoperable equipment. The test procedure directed the field leads to be lifted but did not differentiate between the field leads and cabinet leads to enable the technicians to discern which leads were to be lifted. During the November test, the technicians removed the cabinet leads and then landed them incorrectly because those leads were not marked to identify the proper location on the terminal block. Had the field leads been lifted, they would have been landed correctly since they are specifically labeled with the terminal block lug locations. Because the incorrect leads had been lifted, the technician also observed unexpected conditions during the performance of the test that should have led to discovery of the error in lifting the leads.

Energy Industry Identification System (EIIS) codes are identified in the text within brackets [ ].

**II. CAUSE OF EVENT AND CORRECTIVE ACTIONS**

The root cause of the event is that the procedure did not clearly identify the specific leads to be lifted during the performance of the test, which resulted in the wrong leads being lifted and then incorrectly restored at the completion of the test. A contributing cause was poor workmanship on the part of the technicians, including failure to stop and obtain assistance when unexpected conditions were obtained. Self-checking and other error reduction tools were not used effectively.

Immediate corrective action included correcting the reversed leads and performing the surveillance test to restore the equipment to operable condition. The 'B' Containment Hydrogen Analyzer was also verified to be operable. Additional corrective actions revised the procedure to clearly identify which leads are to be lifted and to ensure the hydrogen analyzer is functional after termination of the wiring during restoration from the test. Training on this event will be conducted for maintenance personnel. The technicians were disqualified and remediated prior to their return to duties.

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

III. SAFETY SIGNIFICANCE

There were no safety significant consequences of this event. The 'B' Containment Hydrogen Analyzer was operable during the time that the 'A' analyzer was inoperable except for approximately six and one-half hours, which is less than the technical specification allowed time for both analyzers being inoperable. The potential safety consequences under alternate conditions, such as the loss of both containment hydrogen analyzers, would be a loss of continuous sampling for hydrogen. However, if the containment hydrogen analyzers were needed following a LOCA, the 'A' containment hydrogen analyzer would have reported an error, which would have been recognized and repaired promptly.

IV. PREVIOUS SIMILAR EVENTS

HNP Corrective Action Program adverse condition 89588, "Adverse Trend-Maintenance Human Performance" dated 4/3/03. An adverse trend was identified within the HNP Maintenance Unit corrective action program related to human performance. It is not clear why the corrective actions from that condition did not prevent this condition, but the training to occur as a corrective action to this event should reduce the probability of a similar event in the future.