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LER 354/04-002-00
HOPE CREEK GENERATING STATION – UNIT 1
FACILITY OPERATING LICENSE NO. NPF-57
DOCKET NO. 50-354

This Licensee Event Report entitled "Control Room Emergency Filtration System Train Inoperable For Greater Than 7 Days, submitted pursuant to the requirements of 10CFR50.73(a)(2)(i)(B).

Sincerely,

A handwritten signature in black ink, appearing to read "James Hutton", with a horizontal line extending to the right.

James Hutton
Plant Manager – Hope Creek

Attachment

RFY

C Distribution
LER File 3.7

JE22

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 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

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4. TITLE
Control Room Emergency Filtration System Train Inoperable For Greater Than 7 Days

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
9	19	2003	2004	002	00	3	18	2004	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE 1	10. POWER LEVEL 100	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)							
		20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)				
		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 Specify in Abstract below or in NRC Form 366A				
		20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)					
		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

NAME R. Yewdall, Licensing Engineer	TELEPHONE NUMBER (Include Area Code) 856-339-2469
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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
A	KM	CHU	C150	Yes					

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

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

On January 21, 2004, while reviewing corrective action and maintenance records, it was determined that a violation of Technical Specification (TS) 3.7.2, Control Room Emergency Filtration system (CREF) {VI} had occurred. The discovery was based on conclusions reached regarding past maintenance activities and performance documentation. TS 3.7.2, requires that two independent CREF subsystems to be operable. With one subsystem inoperable the inoperable unit must be made operable within 7 days.

On September 10 and 11, 2003 maintenance was performed on the BK400 chiller due to erratic behavior of the chiller. The unit was placed back in service and continued to operate until September 19, 2003 at which time it was placed in standby due to system realignment. On October 2, the BK400 was required to start. Shortly following the call to start, the chiller tripped on low evaporator refrigerant pressure. Corrective maintenance performed on October 3, 2003 found that the float arm had become disengaged. The chiller was repaired and returned to service. Operability screening conducted at that time did not identify the chiller as potentially inoperative for more than 7 days.

There were no safety consequences associated with this event because one CREF subsystem was operable at all times. Also, during the period of assumed inoperability of the subsystem there were no radiological releases which would have required operation of the standby CREF to protect personnel in the control room envelope.

This event is being reported in accordance with 10CFR50.73 (a) (2) (i) (B).

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TEXT CONTINUATION**

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

PLANT AND SYSTEM IDENTIFICATION

General Electric – Boiling Water Reactor (BWR/4)
Chilled Water System {KM}*
Control Room Emergency Filtration System {VI}

* Energy Industry Identification System {EIS} codes and component function identifier codes appear as {SS/CCC}

IDENTIFICATION OF OCCURRENCE

Event Date: September 19, 2003
Discovery Date: January 21, 2004

CONDITIONS PRIOR TO OCCURRENCE

Hope Creek was in Operating Condition 1 (Power Operation), at the time of discovery. No other required structures, systems or components were inoperable at the start of this event that contributed to the event.

DESCRIPTION OF OCCURRENCE

Hope Creek Technical Specification (TS) 3.7.2, requires that two (2) independent Control Room Emergency Filtration system (CREF) {VI} subsystems to be operable. Included in each subsystem is a chilled water system to maintain the control room envelope within specified environmental limits. The BK400 chiller is a support component to one of the subsystems. With the chiller inoperable, the subsystem is therefore inoperable. TS 3.7.2, Action a., requires that the inoperable subsystem be made operable within 7 days.

On September 10 and 11, 2003, trouble shooting was performed on the BK400 chiller due to erratic behavior of the chiller. The chiller was then placed in service on September 11, 2003. The chiller operated until September 19, 2003 when removed from service and placed in standby. On October 2, the BK400 chiller was selected to start. Shortly after starting the chiller tripped on low evaporator refrigerant pressure. At 5:02 on October 2, 2003, TS 3.7.2 Action (a) was entered due to the inoperability of the BK400 chiller. Corrective maintenance performed on October 3, 2003 found that the float arm had become disengaged. The BK400 chiller was repaired and returned to operable status on October 6, 2003. Based on the erratic operation of the chiller on September 10 and 11, 2003 and the discovery of the disengaged float on October 3, 2003 it was concluded that either the float fell off when the chiller was started on October 2, 2003 or had become disengaged when the chiller was removed from service on September 19, 2003.

Based on this information the BK400 chiller was not capable of performing its design function when it was placed in standby mode on September 19, 2003. Therefore the "B" CREF train was inoperable for greater than 7 days contrary to the requirements of TS 3.7.2

The event is being reported in accordance with 10CFR50.73(a)(2)(i)(B), Any operation or condition that was prohibited by the plant's Technical Specifications.

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CAUSE OF OCCURRENCE

The cause of the BK400 chiller failure was due to improper maintenance activities, apparent incomplete procedures and failure to complete troubleshooting activities. The BK400 chiller high side float assembly valve and ball were replaced in May 2002 following an inspection as required by a preventive maintenance (PM) work order. Maintenance utilized the existing procedural guidance to effect replacement of the float. On October 3, 2003, during performance of repairs of the BK400 chiller, maintenance and engineering personnel discovered the float ball arm had fallen off the shaft and the clamp key was missing. The float ball arm separated from the valve shaft due to improper torquing of the ball arm clamp. A review of procedure HC.MD-PM.GJ-0001 found limited guidance on float assembly disassembly/ reassembly and no guidance on torquing of involved fasteners.

A corrective action request was initiated to determine the cause of the float ball arm separation. The subsequent investigation determined that previous corrective maintenance performed on this chiller on September 10, 2003, due to surging problems, was prematurely terminated prior to completing a float ball inspection as requested by the engineer. This issue was attributed to a communication problem and addressed under a separate corrective action order.

Screening performed during system evaluation and corrective maintenance (CM) performed in October 2003 did not identify the TS non-compliance condition of the CREF.

PREVIOUS OCCURRENCES

A review of TS noncompliance LERs was performed. LER 354/03-002-00, entitled "Inoperability of Control Room Emergency Filter (CREF) subsystems due to Control Room (CR) envelope breach", dated January 12, 2003 was reviewed for applicability to operability of the BK400 chiller. This event was attributed to a ductwork access hatch opening and no correlation was found to a chiller equipment issue or operability assessments. Based on this review actions associated with that LER would not have prevented this occurrence.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no safety consequences associated with this event since the "A" CREF train was operable during the period the "B" CREF was inoperable. Additionally there were no design basis radiological releases during the period that the "B" CREF train was inoperable. Only one train of CREF is required to mitigate design basis radiological events that impact the control room envelope.

This event does not constitute a Safety System Functional Failure (SSFF) as defined in NEI 99-02.

CORRECTIVE ACTION

The corrective actions to address the identified problem are as follows:

1. The BK400 chiller was repaired and returned to operable status on October 6, 2003.
2. Maintenance procedure HC.MD-PM.GJ-0001 was revised to add guidance for proper torquing of float ball arm clamp nut using a feeler gage to assess compression of clamp.
3. An evaluation is being completed regarding reportability requirements and the reviews of inoperable equipment.

COMMITMENTS

The corrective actions cited in this LER do not constitute commitments.