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U. S. Nuclear Regulatory Commission
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LER 354 / 03- 002- 00
Hope Creek Generating Station
Facility Operating License NPF- 57
Docket No. 50-354

This Licensee Event Report entitled "Inoperability of Control Room Emergency Filtration subsystems due to Control room Envelope Breach" is being submitted pursuant to the requirements of 10CFR50.73(a)(2)(v)(D). The attached LER contains no commitments.

Should there be any questions regarding this matter please contact Ken Buddenbohn at 856-339-5653.

Sincerely,

A handwritten signature in black ink, appearing to be "L. Waldinger", written over a circular stamp or seal.

L. Waldinger
Director - Operations

Attachment

/KMB

C Distribution
 RTL 3E.111

IE22

C: Mr. H. Miller, Administrator – Region I
U. S. Nuclear Regulatory Commission
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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 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

Hope Creek Generating Station

05000354

1 OF 4

Inoperability of Control Room Emergency Filtration subsystems due to Control Room Envelope Breach

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
01	12	2003	2003	002	00	03	13	2003	FACILITY NAME	DOCKET NUMBER
										05000
										05000
9. OPERATING MODE		1	20 2201(b)			20 2203(a)(3)(ii)			50 73(a)(2)(ii)(B)	50 73(a)(2)(ix)(A)
10. POWER LEVEL		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)		X	50 73(a)(2)(v)(D)	
			20 2203(a)(2)(v)			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

Kennard Buddenbohn, Licensing Engineer

TELEPHONE NUMBER (Include Area Code)

856-339-5653

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

14. SUPPLEMENTAL REPORT EXPECTED

YES (If yes, complete EXPECTED SUBMISSION DATE) ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH DAY YEAR

On January 12, 2003 Hope Creek operators discovered control room pressure to be negative relative to adjacent areas. A control room envelope (CRE) breach occurred upon the opening of a ventilation ductwork access hatch in the 'A' Control Room Supply Heating Ventilation and Air Conditioning (CRS) train during a scheduled system outage. At the time 'A' Control Room Emergency Filtration (CREF) subsystem was tagged out. The 'B' CRS was in service maintaining the control room at a positive pressure relative to adjacent areas. Technical Specification (TS) 3.0.3 was entered due the inoperability of the 'A' and 'B' CREF subsystems. Control room pressure was restored approximately ten minutes later by closing the access hatch. TS 3.0.3 was exited within one hour. Further action to initiate a plant shutdown was not required.

The apparent cause of the event was the failure to identify that this particular access hatch was common to both ventilation trains during the planning, operations review, and engineering walk down while planning the work order for this job.

Planned corrective actions include improvements in labeling access hatches on CREF ductwork, identification of configuration control lessons learned, review of the event with affected personnel and a review of existing training programs to address potential knowledge deficiencies.

This event is reportable in accordance with 10CFR50.73(a)(2)(v)(D) as any event or condition that could have prevented the fulfillment of the safety function of structures or system that are needed to mitigate the consequences of an accident

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Hope Creek Generating Station	05000354	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 4
		2003	0 0	2 00	

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

PLANT AND SYSTEM IDENTIFICATION

General Electric – Boiling Water Reactor (BWR/4)
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: January 12, 2003
Discovery Date: January 12, 2003

CONDITIONS PRIOR TO OCCURRENCE

The plant was in OPERATIONAL CONDITION 1 (POWER OPERATION) at the time of the event. The 'A' Control Room Supply Heating Ventilation and Air Conditioning (CRS) train, including the 'A' Control Room Emergency Filtration (CREF) {VI} subsystem was out of service for a scheduled system outage. The 'B' CRS train was maintaining positive control room pressure relative to adjacent areas. The 'B' CREF subsystem was operable.

DESCRIPTION OF OCCURRENCE

On January 12, 2003, at approximately 2304, Hope Creek licensed control room operators discovered control room pressure to be negative relative to adjacent areas. Scheduled maintenance was in progress on the 'A' CRS train to repair a gasket under a ventilation ductwork access hatch on the control room side of CRS AVH403 Supply Air Damper H1GK –1GKHD-9589A2 {VI/DMP}. The loss of control room pressure was due to a control room envelope (CRE) breach upon opening the access hatch. The control room pressure went negative because the open access hatch was in the supply ductwork and air that should have been directed to the control room was bypassed to the ventilation equipment room. Technical Specification (TS) 3.0.3 was entered due to the inoperability of the 'A' and 'B' CREF subsystems. Control room pressure was restored approximately ten minutes later by closing the access hatch. TS 3.0.3 was exited within one hour. Further action to initiate a plant shutdown was not required. An eight hour notification was made to the NRC in accordance with 10 CFR 50.72(b)(3)(V)(D).

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
HOPE CREEK GENERATING STATION	05000354	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 OF 4
		2003	0 0	2 00	

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

CAUSE OF OCCURRENCE

The apparent cause of this event was the failure to identify that this particular access hatch was common to both ventilation trains during the planning, operations review and engineering walkdown while planning the work order for this job. Several contributing factors relate to the event. The access hatch was not identified during the job planning field walk down as being common to both ventilation trains nor was it uniquely labeled on the 'A' CRS ductwork. Multidiscipline PSEG reviewers did not question the CREF subsystem operability or TS implications associated with performing the work.

PREVIOUS OCCURRENCES

A review of LERs at Salem and Hope Creek generating stations for 2001 and 2002 determined that no other reportable events occurred related to inadequate review while planning scheduled maintenance that resulted in the prevention of the fulfillment of a safety function.

SAFETY CONSEQUENCES AND IMPLICATIONS

There were no safety consequences associated with this event. The 'B' CRS was operating satisfactorily prior to and after the event maintaining the control room at positive pressure relative to the adjacent areas. Breaching of the CRE during the scheduled maintenance on ventilation ductwork caused control room pressure to be negative for approximately ten minutes before the cause of the event was identified and corrected. The CREF subsystem's capability to maintain the control room environment for equipment operability and personnel habitability during and following all design basis accidents was impaired with the access hatch removed. The licensing basis of this system in conjunction with control room design provisions provides for limiting the radiation exposure to personnel occupying the control room to 4.1 REM or less Total Effective Dose Equivalent (TEDE). This limitation is consistent with the requirements of 10 CFR Part 50.67, 'Accident Source Term'.

An engineering assessment of the control room radiological consequences for a postulated loss-of-coolant accident (LOCA) assuming a loss of 1000 cubic feet per minute of control room supply air through the open access hatch was conducted. The assessment conservatively assumed that an equal amount of unfiltered inleakage would make up for the loss. The anticipated airflow through the open access would exceed 1000 cubic feet per minute with the system in an emergency response configuration. The results of the assessment, which does not credit operator intervention, indicate that the event was not bounded by the licensing basis analysis. However, utilizing actual plant conditions, the short duration of the event, and reasonable assumptions, control room personnel would have been capable of performing necessary safety functions and would not have received an exposure in excess of limits.

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		2003	0 0 2	00	

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

SAFETY CONSEQUENCES AND IMPLICATIONS (continued)

Based on the above, this event did not present a risk to the health and safety of the public.

A review of this condition determined that a Safety System Functional Failure (SSFF) as defined in Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Performance Indicator Guideline occurred.

CORRECTIVE ACTIONS:

1. Upon discovery, plant operators contacted maintenance technicians and the access hatch was reinstalled. TS 3.0.3 was exited within one hour and further action to initiate a plant shutdown was not required.
2. Human performance aspects of the causal factors (i.e., vague guidance, unfamiliarity with task, imprecise communications) have been addressed in accordance with PSEG company policy.
3. Operations will identify via the Label Program the ductwork access hatches on CREF ductwork that are common to both CRS trains.
4. Operations will determine the preferred method to capture this lesson learned from a configuration control standpoint. (i.e. tagging notes, operating procedure etc.)
5. The Training Review Groups for Planning, Engineering, Operations, and Maintenance will review the event against existing training programs to address potential knowledge deficiencies concerning what constitutes a CRE breach.

COMMITMENTS

The corrective actions cited in this LER are voluntary enhancements and do not constitute commitments.