

David R. Vineyard
Vice President - Hatch

**Southern Nuclear Operating
Company, Inc.**

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July 31, 2014

Docket Nos.: 50-321
50-366

NL-14-1133

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

Edwin I. Hatch Nuclear Plant
Licensee Event Report 2014-001-00
Incorrectly Sized Thermal Overloads Result in a Condition Prohibited by Plant
Technical Specifications

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(i)(B) Southern Nuclear Operating Company hereby submits the enclosed Licensee Event Report.

This letter contains no NRC commitments. If you have any questions, please contact Greg Johnson at (912) 537-5874.

Respectfully submitted,

A handwritten signature in black ink that reads "David R. Vineyard". The signature is written in a cursive, flowing style.

D. R. Vineyard
Vice President – Hatch

DRV/jcm

Enclosures: LER 2-2014-001-00

cc: Southern Nuclear Operating Company
Mr. S. E. Kuczynski, Chairman, President & CEO
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer
Mr. D. R. Vineyard, Vice President – Hatch
Mr. B. L. Ivey, Vice President – Regulatory Affairs
Mr. D. R. Madison, Vice President – Fleet Operations
Mr. B. J. Adams, Vice President – Engineering
Mr. G. L. Johnson, Regulatory Affairs Manager - Hatch
RTYPE: CHA02.004

U. S. Nuclear Regulatory Commission
Mr. V. M. McCree, Regional Administrator
Mr. R. E. Martin, NRR Senior Project Manager - Hatch
Mr. D. H. Hardage, Senior Resident Inspector – Hatch



LICENSEE EVENT REPORT (LER)

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@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 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 2	2. DOCKET NUMBER 05000 366	3. PAGE 1 OF 3
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4. TITLE
Incorrectly Sized Thermal Overloads Result in a Condition Prohibited by Plant Technical Specifications

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
06	05	2014	2014	- 001 -	00	07	31	2014	Edwin I. Hatch Nuclear Plant Unit 1	05000 321
									FACILITY NAME	DOCKET NUMBER

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

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Edwin I. Hatch / Steven Tipps – Licensing Supervisor	TELEPHONE NUMBER (Include Area Code) 912-537-5880
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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
B	ED	94	C770	YES					

14. SUPPLEMENTAL REPORT EXPECTED <input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
		11	20	2014

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

On 06/05/2014 at 0955 EDT, the 2A Emergency Diesel Generator (EDG) Room Exhaust Fans, 2X41-C010A and 2X41-C010B, were found in a tripped condition during the 2A Diesel Generator monthly surveillance. The 2A Diesel Generator was declared inoperable and the required actions were taken in accordance with the Technical Specifications. The thermal overloads for the pan assemblies feeding the fans had tripped due to incorrectly sized thermal overload heaters. New thermal overload heaters had been previously installed in February 2013 in conjunction with a modification that installed new pan assemblies. The new thermal overload heaters were found to be incorrectly sized, leading to thermal overloads with trip settings that were close to the normal operating current for the fans, resulting in premature trips of the thermal overloads.

On 06/06/2014 at 0542 EDT, Maintenance found the 1A EDG room exhaust fans, 1X41-C002A and 1X41-C002B, in the tripped condition and attributed their trip to the incorrectly sized thermal overloads. The pan assemblies for these fans had been replaced in April 2014 as part of the same modification as that performed on the 2A EDG pan assemblies. No other EDGs ventilation fan assemblies had been previously replaced.

The thermal overloads for the pan assemblies associated with the 1A and 2A EDG ventilation fans were replaced and the fans were returned to service. Upon completion of the cause determination the final causes and corrective actions will be provided in an update report.

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CONTINUATION SHEET**

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NARRATIVE

PLANT AND SYSTEM IDENTIFICATION

General Electric – Boiling Water Reactor
Energy Industry Identification System codes appear in the text as (EISS Code XX)

DESCRIPTION OF EVENT

On 06/05/2014 at 0955 EDT, with Unit 2 operating at approximately 100 percent rated thermal power, the 2A emergency diesel generator (EDG) (EISS Code DG) room exhaust fans (EISS Code FAN) were found in a tripped condition due to thermal overload relay trips (EISS Code 94) in the pan assemblies. The EDG room exhaust fans are two 100% capacity power roof exhaust ventilators responsible for exhausting heat from the EDG room during its operation. The 2A Diesel Generator was declared inoperable and the required actions were taken in accordance with the Technical Specifications. New thermal overload heaters had been previously installed in February 2013 in conjunction with a modification that installed new pan assemblies. The new thermal overload heaters were found to be incorrectly sized, leading to thermal overloads with trip settings that were too close to the normal operating current for the fans and resulting in premature trips of the thermal overloads.

On 06/06/2014 at 0542 EDT, as part of an extent of condition investigation, Maintenance found the 1A EDG room exhaust fans in the tripped condition and also attributed their trips to the incorrectly sized thermal overloads. The pan assemblies for these fans had been replaced in April 2014 as part of the same modification as that performed on the 2A EDG pan assemblies. No other EDGs ventilation fan assemblies had been previously replaced and no additional EDG ventilation fans were found tripped.

On 06/06/2014, Maintenance replaced the overloads in the 1A and 2A EDG ventilation fan pan assemblies and proper operation of each of the ventilation fans was then verified in accordance with the Operations procedure.

Additional safety-related components whose thermal overloads were resized as part of the same modification were walked down and confirmed to be operating or in a standby configuration and their respective thermal overloads were not tripped. The overloads were determined to also be incorrectly sized for these components, but reasonable assurance was maintained that their support function did not adversely impact the operability of structures, systems or components required by the Technical Specifications in their "as found" condition. Corrective actions were also taken to resize the affected components to increase their margin of operation and their reliability.

CAUSE OF EVENT

The cause determination for the tripped ventilation fans has not been completed. However, preliminary information indicates that the affected EDG room exhaust fans were found in a tripped condition due to the combination of incorrectly sized thermal overloads and operation with the running amps near their respective trip set points. Upon completion of the cause determination an update report will be provided with the final causes identified.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

The event is reportable per 10 CFR 50.73(a)(2)(i)(B) due to an event occurring in which a Limiting Condition for Operation (LCO) existed for a time longer than permitted by Technical Specifications (TS). The EDG was inoperable due to the tripped condition of the 1A and 2A EDG Room Exhaust Fans. It was assessed that the fans have been in a tripped condition due to the new installment of incorrectly sized thermal overload heaters.

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The heaters had been installed for a period of time greater than the 72 hour Required Action Statement (RAS). The safety assessment associated with these conditions will be updated upon completion of the associated risk assessment that will be completed in conjunction with the completion of the cause determination.

CORRECTIVE ACTIONS

The thermal overload heaters for the pan assemblies associated with the 1A and 2A EDG ventilation fans were replaced and the fans were returned to service. Upon completion of the cause determination, the final corrective actions will be provided in an update report.

ADDITIONAL INFORMATION

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

Failed Components Information:

Master Parts List Number: 2X41-C010A/B
 Manufacturer: Cutler Hammer
 Model Number: AA23AB
 Type: Thermal Type A Overload Relay

Manufacturer Code: C770
 EIS System Code: ED
 Reportable to EPIX: YES
 Root Cause Code: 94

Master Parts List Number: 1X41-C002A/B
 Manufacturer: Cutler Hammer
 Model Number: AA23AB
 Type: Thermal Type A Overload Relay

Manufacturer Code: C770
 EIS System Code: ED
 Reportable to EPIX: YES
 Root Cause Code: 94

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

Previous Similar Events: None.