



David R. Vineyard
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April 3, 2017

Docket Nos.: 50-321
50-366

NL-17-0521

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

Edwin I. Hatch Nuclear Plant Unit 1 & 2
Licensee Event Report 2017-001-0
Unanalyzed Conditions for a Postulated Fire Discovered During NFPA 805 Transition

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(ii)(B), Southern Nuclear Operating Company (SNC) 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,

David R. Vineyard
Vice President – Hatch

DRV/jcb

Enclosure: LER 2017-001-0

U. S. Nuclear Regulatory Commission

NL-17-0521

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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. M. D. Meier, Vice President – Regulatory Affairs

Mr. R. D. Gayheart, Fleet Operations General Manager

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U. S. Nuclear Regulatory Commission

Ms. C. Haney, Regional Administrator

Mr. R. Hall, NRR Project Manager – Hatch

Mr. D. H. Hardage, Senior Resident Inspector – Hatch

Edwin I. Hatch Nuclear Plant Unit 1 and 2

LER 2017-001-0

**Unanalyzed Conditions for a Postulated Fire Discovered During NFPA 805
Transition**



LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 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 1	2. DOCKET NUMBER 05000321	3. PAGE 1 OF 4
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4. TITLE
Unanalyzed Conditions for a Postulated Fire Discovered During NFPA 805 Transition

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
02	03	2017	2017	- 001	- 0	04	03	2017	Edwin I. Hatch Nuclear Plant Unit 2		05000366
									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)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)				
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)				
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)				
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)				
10. POWER LEVEL	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)				
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)				
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)				
	<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)(D)	<input type="checkbox"/> 73.77(a)(2)(i)				
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)				
		<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A				

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT Edwin I. Hatch / Jimmy Collins – Licensing Supervisor	TELEPHONE NUMBER (Include Area Code) 912-537-2342
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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	FA	CBL	N/A	Y					

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On February 3, 2017, in preparation for transitioning the Plant Hatch Fire Protection Licensing Basis from 10 CFR 50.48(b) (Appendix R) to 10 CFR 50.48(c) (NFPA 805), a weak-link and operator manual action (OMA) analysis was completed for Information Notice (IN) 92-18 type hot shorts on motor operated valves (MOVs). Examination of the current Plant Hatch Appendix R Safe Shutdown Analysis identified circuit configurations in multiple Fire Areas where an Appendix R postulated fire could impact the ability to achieve safe shutdown conditions. The cable impacts can bypass the limit and torque switches and could result in physical damage to the valves, preventing the valves from being operated from the main control room, remote shutdown panel, or locally. Hourly fire watches had already been established for the affected fire areas and Fire Action Statements were initiated to address the postulated condition for the identified MOVs.

While these impairments represent unanalyzed conditions for Appendix R, the described scenarios are only possible given a fire has occurred in the associated Fire Areas. Plant Hatch issued a letter of intent to the NRC on October 4, 2013 to begin transition to NFPA 805 with a license amendment request (LAR) submittal date of April 4, 2018. Any identified noncompliances will be resolved during the transition process.



**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

(See NUREG-1022, R.3 for instruction and guidance for completing this form
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 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	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Edwin I. Hatch Nuclear Plant Unit 1	05000-321	2017	- 001	- 0

NARRATIVE

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 February 3, 2017 at approximately 1458 EST, with Unit 1 at approximately 100 percent rated thermal power and Unit 2 at approximately 88.4 percent rated thermal power, in preparation for transitioning the Plant Hatch Fire Protection Licensing Basis from 10 CFR 50.48(b) (Appendix R) to 10 CFR 50.48(c) (NFPA 805), a weak-link and operator manual action (OMA) analysis was completed for Information Notice (IN) 92-18 type hot shorts on motor operated valves (MOVs) to support the Plant Hatch Appendix R Safe Shutdown Analysis. This updated analysis identified circuit configurations in multiple Fire Areas where an Appendix R postulated fire could impact the ability to achieve safe shutdown conditions. The cable impacts can bypass the limit and torque switches and could result in physical damage to the valves, preventing the valves from being operated from the main control room, remote shutdown panel, or locally. This postulated event was identified in Fire Areas 0024 (Main Control Room), 1203F (Unit 1 Reactor Building), 1205F (Unit 1 Reactor Building), 2203F (Unit 2 Reactor Building) for the associated valves below:

- 1E11-F003B; RHR Heat Exchanger B Discharge MOV
- 1E11-F004B; RHR Pump E11 C002B Torus Suction MOV
- 1E11-F006B; RHR Pump 1B SDC Suction MOV
- 1E11-F007B; RHR Pumps B and D Minimum Flow Bypass MOV
- 1E11-F011B; RHR Heat Exchanger B Drain To Suppression Pool MOV
- 1E11-F015B; RHR LPCI Inboard Discharge MOV
- 1E11-F016B; Containment Spray Outboard Isolation MOV
- 1E11-F017B; RHR LPCI Outboard Discharge MOV
- 1E11-F028B; Torus Spray/RHR Test Line Outboard Isolation MOV
- 1E11-F047B; RHR Heat Exchanger B Inlet MOV
- 1E11-F048B; RHR Heat Exchanger B Bypass MOV
- 1E11-F049; RHR to Radwaste Discharge Isolation MOV
- 1E11-F068B; RHR Heat Exchanger B Service Water Flow Control MOV
- 1E11-F073B; RHR Service Water to RHR Cross-tie MOV
- 1E11-F104B; RHR Heat Exchanger B Vent MOV
- 1E51-F007; RCIC Steam Supply Inboard Isolation MOV
- 1E51-F008; RCIC Steam Supply Outboard Isolation MOV
- 1E51-F012; RCIC Pump Outboard Discharge MOV
- 1E51-F013; RCIC Pump Inboard Discharge MOV
- 1E51-F019; RCIC Minimum Flow Bypass to Suppression Pool MOV
- 1E51-F022; RCIC Pump Test Bypass Valve to Condensate Storage Tank MOV
- 1E51-F045; RCIC Turbine Steam Supply MOV
- 1E51-F046; RCIC Barometric Condenser and Lube Oil Cooler Cooling Water Supply MOV
- 1E51-F524; RCIC Turbine Trip and Throttle MOV

- 2E11-F003B; RHR Heat Exchanger B Discharge MOV
- 2E11-F004B; RHR Pump 2B Torus Suction MOV
- 2E11-F006B; RHR Pump 2B SDC Suction MOV



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- 2E11-F007B; RHR Pumps 2B and 2D Minimum Flow Bypass MOV
- 2E11-F011B; RHR Heat Exchanger B Drain To Suppression Pool MOV
- 2E11-F015B; RHR LPCI Inboard Discharge MOV
- 2E11-F016B; Containment Spray Outboard Isolation MOV
- 2E11-F017B; RHR LPCI Outboard Discharge MOV
- 2E11-F028B; Torus Spray/RHR Test Line Outboard Isolation MOV
- 2E11-F047B; RHR Heat Exchanger B Inlet MOV
- 2E11-F048B; RHR Heat Exchanger B Bypass Valve (MOV)
- 2E11-F049; RHR to Radwaste Isolation MOV
- 2E11-F068B; RHR Heat Exchanger B Service Water Flow Control MOV
- 2E11-F073B; RHR Service Water to RHR Cross-tie MOV
- 2E11-F104B; RHR Heat Exchanger B Vent MOV
- 2E51-F007; RCIC Steam Supply Inboard Isolation MOV
- 2E51-F008; RCIC Steam Supply Outboard Isolation MOV
- 2E51-F010; RCIC Pump Suction Valve From Condensate Storage Tank MOV
- 2E51-F012; RCIC Pump Outboard Discharge MOV
- 2E51-F013; RCIC Pump Inboard Discharge MOV
- 2E51-F019; RCIC Minimum Flow Bypass to Suppression Pool MOV
- 2E51-F022; RCIC Pump Test Bypass Valve to Condensate Storage Tank MOV
- 2E51-F029; RCIC Pump Suction Valve From Suppression Pool MOV
- 2E51-F031; RCIC Pump Suction From Suppression Pool Outboard Isolation MOV
- 2E51-F045; RCIC Turbine Steam Supply MOV
- 2E51-F046; RCIC Barometric Condenser and Lube Oil Cooler Cooling Water Supply MOV
- 2E51-F524; RCIC Turbine Trip and Throttle MOV

CAUSE OF EVENT

The postulated event was identified as part of a weak-link and OMA analysis for IN 92-18 type hot shorts. This review is being conducted as part of the Hatch transition activities from Appendix R to NFPA 805.

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

The event is reportable per 10 CFR 50.73(a)(2)(ii)(B) as the identified circuit configurations represents unanalyzed conditions that significantly degrades plant safety due to the potential to compromise safe shutdown during a postulated fire event.

The presence of the compensatory measures, in addition to portable fire protection equipment and installed fire protection and detection equipment, ensures the safe shutdown paths are preserved until the conditions are resolved. These are postulated events which did not affect the safe operation of the plant, or the health and safety of the public. Based on this information, this event is considered to have very low safety significance.

CORRECTIVE ACTIONS

Hourly fire watches had already been established for the affected fire areas as part of previously established compensatory measures to preserve safe shutdown paths. Fire Action Statements were initiated to address the postulated condition for the identified MOVs. Plant Hatch issued a letter of intent to the NRC on October 4, 2013 to begin transition to NFPA 805 with a license amendment request (LAR) submittal date of April 4, 2018. Any identified



**LICENSEE EVENT REPORT (LER)
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noncompliances will be resolved during the transition process.

ADDITIONAL INFORMATION

Other Systems Affected: None

Failed Components Information:

Master Parts List Number: N/A (cables in systems E11, E51)
Raceway)
Manufacturer Code: N/A
Model Number: N/A
Type: Cables

EIIS System Code: FA (Cable
Reportable to EPIX: Yes
Root Cause Code: B
EIIS Component Code: CBL

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

PREVIOUS SIMILAR EVENTS:

LER 2015-001-01

On June 4, 2015, in preparation for transitioning the Plant Hatch Fire Protection Licensing Basis from 10 CFR 50.48(b) (Appendix R) to 10 CFR50.48(c) (NFPA 805), an update to the Plant Hatch Appendix R Safe Shutdown Analysis (SSA) was being performed for the Unit 1 and Unit 2 Reactor Buildings, Turbine Buildings, and Diesel Generator Building. This updated analysis identified circuit configurations in several Fire Areas where an Appendix R postulated fire could impact the ability to achieve safe shutdown conditions. These are Category 1 barrier impairments. Compensatory measures were established for the affected fire areas to preserve a safe shutdown (SSD) path.

Letter Number: NL-17-0521 Due Date (if applicable): 4/4/2017 Click here to enter a date.

Subject: Unanalyzed Conditions for a Postulated Fire Discovered During NFPA 805 Transition

RI / Extension: JaNaye Bailey / x3722

CR/TE (if applicable) / Database (C/F/H/V): CRs 10326399, 10326401, 10326402, 10326404, and 10326405

Executive Summary: In preparation for transitioning the Plant Hatch Fire Protection licensing basis from Appendix R to NFPA 805, a weak-link and operator manual action analysis was completed for Information Notice 92-18 type hot shorts on motor operator valves (MOVs). Examination of the current Plant Hatch Appendix R Safe Shutdown Analysis identified circuit configurations in multiple Fire Areas where an Appendix R postulated fire could impact the ability to achieve safe shutdown conditions. Hourly fire watches had already been established for the affected fire areas as part of previously established compensatory measures to preserve safe shutdown paths and Fire Action Statements were initiated to address the postulated condition for the identified MOVs.

SECTION I – CORRESPONDENCE SCREENING (to be completed by RI)	YES	NO
I.1. Does this letter affect the FSAR or any other License Basis Documents? <i>If YES, complete 1.1.a. If unsure, obtain peer review from 10 CFR 50.59 qualified individual.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I.1.a Has Section IV been completed to update each document?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
I.2. Does this letter require posting per 10 CFR 19? <i>If YES, ensure posting after submittal.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I.3. Does this letter contain Safeguards Information? <i>If YES, do NOT scan to SNC Intranet. Enter Special Handling Instructions below and review with the RA Administrative Assistant (AA).</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I.4. Does this letter contain information to be withheld from public disclosure (for example, Proprietary or Non-Safeguards Security-Related Information)? <i>If YES, do NOT scan to SNC Intranet. If Proprietary, include appropriate affidavit. Enter Special Handling Instructions below and review with the AA.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I.5. Does this letter contain sensitive, limited access or distribution items? <i>If YES, enter Special Handling Instructions below and review with the AA.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Special Handling Instructions for AA		
<u>N/A</u> Administrative Assistant	<u>N/A</u> Date	
I.6. Oath or Affirmation Required? <i>If YES, ensure proper letter template is used.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I.7. Verification Required? <i>If YES, use the guidance of NMP-AD-043.</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
I.8. External Affairs and General Counsel Consultation Required? <i>If YES, obtain concurrence signature in Section II.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>