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November 19, 2024

Docket Nos.: 50-321

NL-24-0413

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

Edwin I. Hatch Nuclear Plant
Licensee Event Report 2024-004-00
Unit 1 Manual Reactor Trip During Hurricane Helene Due to Degrading
Condenser Vacuum

Ladies and Gentlemen:

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

This letter contains no NRC commitments. If you have any questions, please contact the Hatch Licensing Manager, Jimmy Collins, at 912.453.2342.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'M Busch', written over a horizontal line.

Matt Busch
Vice President – Hatch

MSB/JMH

Enclosure: LER 2024-004-00

Cc: Regional Administrator, Region II
NRR Project Manager – Hatch
Senior Resident Inspector – Hatch
RTYPE: CHA02.004

Enclosure to NL-24-0413
LER 2024-004-00

**Edwin I. Hatch Nuclear Plant
Licensee Event Report 2024-004-00**

**Unit 1 Manual Reactor Trip During Hurricane Helene Due to Degrading
Condenser Vacuum**

Enclosure

LER 2024-004-00



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, Library, and Information Collections Branch (T-6 A10M), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollections.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

1. Facility Name

Edwin I. Hatch Nuclear Plant Unit 1

☒ 050
☐ 052

2. Docket Number

00321

3. Page

1 OF 2

4. Title

Manual Reactor Trip During Hurricane Helene Due to Degrading Condenser Vacuum

5. Event Date			6. LER Number			7. Report Date			8. Other Facilities Involved	
Month	Day	Year	Year	Sequential Number	Revision No.	Month	Day	Year	Facility Name	Docket Number
09	27	2024	2024	- 004 -	00	11	19	2024	Facility Name	<input type="checkbox"/> 050 <input type="checkbox"/> 052

9. Operating Mode

1

10. Power Level

054

11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)

<input checked="" type="checkbox"/> 10 CFR Part 20	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 10 CFR Part 50	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)	<input type="checkbox"/> 73.1200(a)
<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)	<input type="checkbox"/> 73.1200(b)
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)	<input type="checkbox"/> 73.1200(c)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)	<input type="checkbox"/> 73.1200(d)
<input type="checkbox"/> 20.2203(a)(2)(i)	<input checked="" type="checkbox"/> 10 CFR Part 21	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input checked="" type="checkbox"/> 10 CFR Part 73	<input type="checkbox"/> 73.1200(e)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 21.2(c)	<input type="checkbox"/> 50.69(g)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.77(a)(1)	<input type="checkbox"/> 73.1200(f)
<input type="checkbox"/> 20.2203(a)(2)(iii)		<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(2)(i)	<input type="checkbox"/> 73.1200(g)
<input type="checkbox"/> 20.2203(a)(2)(iv)		<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(2)(ii)	<input type="checkbox"/> 73.1200(h)
<input type="checkbox"/> 20.2203(a)(2)(v)		<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)		

☐ OTHER (Specify here, in abstract, or NRC 366A).

12. Licensee Contact for this LER

Licensee Contact

Jimmv Collins - Licensing Manager

Phone Number (Include area code)

9124532342

13. Complete One Line for each Component Failure Described in this Report

Cause	System	Component	Manufacturer	Reportable to IRIS	Cause	System	Component	Manufacturer	Reportable to IRIS

14. Supplemental Report Expected

☒ No ☐ Yes (If yes, complete 15. Expected Submission Date)

15. Expected Submission Date

Month Day Year

16. Abstract (Limit to 1326 spaces, i.e., approximately 13 single-spaced typewritten lines)

At 0346 EDT on 9/27/24, with Unit 1 in Mode 1 at approximately 54% power, the reactor was manually tripped due to degrading condenser vacuum. The trip was not complex, with all systems responding normally including the closure of containment isolation valves in multiple systems. The Operating crew responded correctly to the event and the plant was stabilized.

The degrading condenser vacuum was caused by debris from Hurricane Helene that accumulated and clogged the circulation water screens of the Unit 1 flume. The circulation water system was shutdown and the debris removed from the Unit 1 circulation water screens.

The event is reportable per 10 CFR 50.73(a)(2)(iv)(A) as any event or condition that resulted in the manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B) of this section. Systems that actuated during this event that are listed in (a)(2)(iv)(B) include: the Reactor Protection System (RPS) and general Containment Isolation Valves (CIV) in multiple systems.

**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, Library, and Information Collections Branch (T-6 A10M), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollects.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

1. FACILITY NAME Edwin I. Hatch Nuclear Plant Unit 1	<input checked="" type="checkbox"/> 050	2. DOCKET NUMBER 00321	3. LER NUMBER				
	<input type="checkbox"/> 052		<table border="1"><tr><td>YEAR</td><td>SEQUENTIAL NUMBER</td><td>REV NO.</td></tr><tr><td>2024</td><td>004</td><td>00</td></tr></table>	YEAR	SEQUENTIAL NUMBER	REV NO.	2024
YEAR	SEQUENTIAL NUMBER	REV NO.					
2024	004	00					

NARRATIVE**EVENT DESCRIPTION**

At 0346 EDT on 9/27/24, with Unit 1 in Mode 1 at approximately 54% power, the reactor was manually tripped due to degrading condenser vacuum. The trip was not complex, with all systems responding normally including the closure of containment isolation valves (CIV)(EIS Code: ISV) in multiple systems. The Operating crew responded correctly to the event and the plant was stabilized. There were no inoperable systems that contributed to this event.

EVENT CAUSE ANALYSIS

The degrading condenser vacuum was caused by debris from Hurricane Helene that accumulated and clogged the circulation water screens of the Unit 1 flume.

SAFETY ASSESSMENT AND REPORTABILITY

There were no actual safety consequences as a result of this event. All safety related systems functioned as designed during this event. The Operating crew responded correctly to the event. The applicable abnormal / emergency operating procedures were properly entered and the plant was stabilized. The event was within the analysis of the Updated Final Safety Analysis Report (UFSAR) Chapter 15.

The event is reportable per 10 CFR 50.73(a)(2)(iv)(A) as any event or condition that resulted in the manual or automatic actuation of any of the systems listed in paragraph (a)(2)(iv)(B) of this section. Systems that actuated during this event that are listed in (a)(2)(iv)(B) include: the Reactor Protection System (RPS)(EIS Code: IG) and general Containment Isolation Valves (CIV) in multiple systems.

CORRECTIVE ACTIONS

The circulation water system was shutdown and the debris removed from the Unit 1 circulation water screens.

PREVIOUS SIMILAR EVENTS

None.