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February 18, 2022

Docket Nos.: 50-321

NL-22-0102

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

Edwin I. Hatch Nuclear Plant – Unit 1
Licensee Event Report 2022-001-00
Manual Reactor Scram due to Reactor Pressure Perturbations

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 Plant Hatch Licensing Manager, Jimmy Collins, at 912.453.2342.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Edwin D. Dean III".

Edwin D. Dean III
Vice President – Plant Hatch

ED/CJC

Enclosure: LER-2022-001-00

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

**Edwin I. Hatch Nuclear Plant – Unit 1
Licensee Event Report 2022-001-00
Manual Scram due to Reactor Pressure Perturbations**

Enclosure

LER 2022-001-00



LICENSEE EVENT REPORT (LER)

(See Page 3 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 e-mail to: Infocollections.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk aid: oina_submission@omb.eop.gov. The NRC may not conduct a 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

2. Docket Number

05000

321

3. Page

1 OF 2

4. Title

Manual Reactor Scram due to Reactor Pressure Perturbations

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
12	29	2021	2022	- 001 -	00	02	18	2022		05000
									Facility Name	Docket Number
										05000

9. Operating Mode

1

10. Power Level

90

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 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"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	10 CFR Part 73
<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.69(g)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(4)
<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.71(a)(5)
<input type="checkbox"/> 20.2203(a)(2)(i)	10 CFR Part 21	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 73.77(a)(1)(i)
<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 21.2(c)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 73.77(a)(2)(i)
<input type="checkbox"/> 20.2203(a)(2)(iii)	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"/> 73.77(a)(2)(ii)
<input type="checkbox"/> 20.2203(a)(2)(iv)	<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"/> 20.2203(a)(2)(v)	<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)	

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

12. Licensee Contact for this LER

Licensee Contact

Carl James Collins - Licensing Manager

Phone Number (Include area code)

(912) 453-2342

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
X	TA	PT	E232	Y					

14. Supplemental Report Expected

15. Expected Submission Date

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

Month	Day	Year

16. Abstract (Limit to 1560 spaces, i.e., approximately 15 single-spaced typewritten lines)

On 12/29/2021 at 1552 EST, with Unit 1 in Mode 1 at 90% power, the reactor was manually tripped due to reactor pressure perturbations. The cause of the reactor pressure perturbations was the failure of a main steam throttle pressure transmitter. Additionally, closure of containment isolation valves (CIVs) in multiple systems occurred during the trip as a result of reaching the actuation setpoint on reactor water level. The trip was not complex, with all systems responding normally post-trip.

Corrective action was completed to replace the failed transmitter.

This event is reportable pursuant to 10 CFR 50.73(a)(2)(iv)(A) due to actuations of systems listed in 10 CFR 50.73(a)(2)(iv)(B).

**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/>)

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1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Edwin I. Hatch Nuclear Plant - Unit 1	05000-321	2022	001	00

NARRATIVE**EVENT DESCRIPTION:**

On 12/29/2021 Unit 1 was operating at 96% rated thermal power. At approximately 1000 EST, the #1 main steam throttle pressure transmitter [EISS Codes TA, PT] failed. At 1310 EST, the main steam throttle pressure setpoint and reactor pressure began to become erratic. Reactor power was lowered to 90% power. With reactor pressures still unstable, a manual SCRAM was inserted at 1552. All control rods fully inserted. All safety-related actuations occurred as designed. As expected after a manual reactor SCRAM, a Group II containment isolation occurred when reactor water level lowered to the low water level setpoint. There were no other inoperable structures, systems, or components that contributed to the event.

EVENT CAUSE ANALYSIS:

The event was determined to be caused by a failure of a main steam throttle pressure transmitter. Specifically, the damping circuitry within the transmitter failed. This resulted in signal error in the pressure control circuitry, leading to reactor pressure setpoint instability.

REPORTABILITY AND SAFETY ASSESSMENT:

This event is reportable pursuant to 10 CFR 50.73(a)(2)(iv)(A) due to the following system actuations: Reactor Protection System (RPS) and general containment isolation signals affecting containment isolation valves in more than one system.

There were no safety consequences as a result of this event. There were no safety-related systems that failed during this event. The operating crew responded correctly to the event. The applicable abnormal/emergency operating procedures were entered. The event was within the analysis of the Updated Final Safety Analysis Report (UFSAR) Chapter 15. No radiological release occurred due to this event.

CORRECTIVE ACTIONS:

The #1 main steam throttle pressure transmitter was replaced during the unit outage.

PREVIOUS SIMILAR EVENTS:

None.