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Date: April 9, 2024

Docket No.: 50-321

NL-24-0144

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

Edwin I. Hatch Nuclear Plant – Unit 1
Licensee Event Report 2024-001-00
Primary Containment Penetration Exceeded Maximum Allowable Primary Containment
Leakage Rate (La)

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73 (a)(2)(i)(B), 10 CFR 50.73 (a)(2)(ii)(A), and 10 CFR 50.73(a)(2)(v)(C), 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 black ink, appearing to read "M. Busch".

M.S. Busch
Vice President – Hatch

MSB/JMH

Enclosure: LER 2024-001-00

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

**Edwin I. Hatch Nuclear Plant Unit 1
Licensee Event Report 2024-001-00
Primary Containment Penetration Exceeded Maximum Allowable Primary
Containment Leakage Rate (La)**

Enclosure

LER 2024-001-00



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	☒ 050 ☐ 052	2. Docket Number	3. Page
Edwin I. Hatch Nuclear Plant Unit 1		00321	1 OF 2

4. Title
Primary Containment Penetration Exceeded Maximum Allowable Primary Containment Leakage Rate (La)

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
02	11	2024	2024	- 001 -	00	04	09	2024	Facility Name	☐ 050 ☐ 052

9. Operating Mode	10. Power Level
5	0%

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

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

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

12. Licensee Contact for this LER

Licensee Contact	Phone Number (Include area code)
Jimmv Collins - Licensina Manaader	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	BD	ISV	E095	Y					

14. Supplemental Report Expected

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

Month	Day	Year

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

At 10:11 EST on 02/11/2024 while Unit 1 was at 0% power in Mode 5, planned local leak rate testing (LLRT) of feedwater check valves were being performed. The test resulted in determining the primary containment leakage rate exceeded the allowable limit, La, defined in 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors" and specified in Technical Specifications 5.5.12. Two primary containment feedwater isolation check valves in a single penetration failed LLRT which represents a failure to maintain primary containment integrity.

Following the completion of valve maintenance, which included machining of the in-body seats, disc, and adjustment or replacement of the hinge pins (as needed), a successful as-left LLRT was performed on each feedwater check valve and primary containment was restored to operable status.

**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 Edwin I. Hatch Nuclear Plant Unit 1	☒ 050	2. DOCKET NUMBER 00321	3. LER NUMBER	YEAR	SEQUENTIAL NUMBER	REV NO.
	☐ 052		2024	- 001	- 00	

NARRATIVE**EVENT DESCRIPTION**

On 02/11/2024, while Unit 1 was at 0% power in Mode 5, planned local leak rate testing (LLRT) of the feedwater check valves were being performed. At 10:11 EST, it was determined that the primary containment leakage rate exceeded the allowable limit, La, defined in 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors" and specified in Technical Specifications 5.5.12. Two primary containment feedwater (EIIS Code: SJ) isolation check valves (EIIS Code: ISV) in a single penetration failed LLRT which represents a failure to maintain primary containment integrity.

FAILED COMPONENTS INFORMATION

Master Parts List Number: 1B21F010A, 1B21F032A
Manufacturer: Edward Valves
Model Number: Vendor P/N 415595
Type: Isolation Valves

EVENT CAUSE ANALYSIS

Causal analysis was performed to determine the reasons the feedwater check valves leaked excessively. It was determined that the valve disc was mis-aligned to its in-body seats which resulted in leakage through the valves exceeding allowable limits.

SAFETY ASSESSMENT

There were no actual safety consequences as a result of this event. The feedwater line containing these check valves is postulated to remain filled with water post-LOCA. With the leakage rate higher than allowable through this line, there is a potential pathway failure via this line. The leakage through this primary containment penetration for the as-found condition was determined to exceed La under postulated accident conditions. However, the primary containment leakage rate was below the level required to significantly impact the Core Damage Frequency and Large Early Release Frequency and was of low safety consequence. Additionally, the event was within the analysis of the UFSAR Chapter 15.

This event is reportable per 10 CFR 50.73 (a)(2)(ii)(A) because it resulted in one of the plant's principal safety barriers being seriously degraded. This event is also reportable per 10 CFR 50.73 (a)(2)(i)(B) because this is a condition prohibited by Technical Specifications because primary containment was inoperable in excess of the allotted Limited Condition of Operation (LCO) timeframe. Additionally, this event is reportable per 10 CFR 50.73 (a)(2)(v)(C) because it is an event that could have prevented fulfillment of a safety function that is needed to control the release of radioactive material.

CORRECTIVE ACTIONS

Maintenance was performed on the isolation valves which included machining of the in-body seats, disc, and adjustment or replacement of the hinge pins (as needed). Following the completion of valve maintenance a successful as-left LLRT was performed on each feedwater check valve and primary containment was restored to operable status.

PREVIOUS SIMILAR EVENTS

None.