



David R. Vineyard
Vice President – Plant Hatch

Hatch Nuclear Plant
11028 Hatch Parkway North
Baxley, GA 31513
912 537 5859 tel
912 366 2077 fax

March 21, 2018

Docket Nos.: 50-321
50-366

NL-18-0350

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

Edwin I. Hatch Nuclear Plant Unit 1 and 2
Condition Prohibited by Tech Specs Due to Secondary Containment Inoperability

Ladies and Gentlemen:

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

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

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David R. Vineyard".

D. R. Vineyard
Vice President – Hatch

DRV/jcb

Enclosure: LER 2018-001-00

U. S. Nuclear Regulatory Commission
NL-18-0350
Page 2

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



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-mv/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 Unit 1	2. DOCKET NUMBER 05000321	3. PAGE 1 OF 3
--	-------------------------------------	--------------------------

4. TITLE
Condition Prohibited by Tech Specs Due to Secondary Containment Inoperability

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
01	20	2018	2018	- 001	- 00	03	21	2018	Edwin I. Hatch Unit 2	05000366
									FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)											
	<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 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)		
10. POWER LEVEL 095	<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)		
	<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 checked="" 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 checked="" 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
---	--

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
				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

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

On January 20, 2018 at 1950 EST with Unit 1 at approximately 95 percent rated thermal power and Unit 2 at approximately 100 percent rated thermal power, a Secondary Containment drawdown test was completed unsatisfactorily due to not being able to establish greater than or equal to 0.20 inches of vacuum water gauge within 10 minutes in accordance with Technical Specification (TS) Surveillance Requirement (SR) 3.6.4.1.3. This test was performed using the 1A, 1B, and 2A Standby Gas Treatment (SBGT) trains. Operations personnel entered the required action statement for an inoperable secondary containment. A subsequent secondary containment drawdown test was successfully performed at 2236 EST using the 1B, 2A, and 2B SBGT trains. The required action statement was therefore exited due to meeting the surveillance requirement.

Subsequent troubleshooting revealed degraded secondary containment door seals. The degraded secondary containment doors were repaired and a satisfactory secondary containment drawdown test using the 1A, 1B, and 2A SBGT trains was completed on January 25, 2018. As part of the corrective actions, the secondary containment door preventative maintenance procedure will be revised with enhanced actions to prevent recurrence of degraded components.



**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 Unit 1	05000-321	2018	- 001	- 00

NARRATIVE

Event Description

On January 20, 2018 at 1950 EST with Unit 1 at approximately 95 percent rated thermal power and Unit 2 at approximately 100 percent rated thermal power, the "Type A" Secondary Containment drawdown test was completed unsatisfactorily due to not being able to establish greater than or equal to 0.20 inches of vacuum water gauge within 10 minutes in accordance with Technical Specification (TS) Surveillance Requirement (SR) 3.6.4.1.3. This test was performed using the 1A, 1B, and 2A Standby Gas Treatment (SBGT) (EIS Code: BH) trains. Operations personnel therefore entered the required action statement for an inoperable secondary containment. A subsequent secondary containment drawdown test was successfully performed at 2236 EST using the 1B, 2A, and 2B SBGT trains. The required action statement was therefore exited due to meeting the surveillance requirement.

Due to the successful completion of the secondary containment drawdown test without using the 1A SBGT train, it was reasoned that the 1A SBGT train was unable to develop sufficient flow such that a differential pressure of greater than or equal to 0.20 inches water gauge could be established. However, based on subsequent troubleshooting testing, it was revealed that the 1A train could maintain its design flowrate and the initial failure of the secondary containment drawdown test was due to degraded secondary containment components. Troubleshooting activities identified that degraded secondary containment door seals were the cause of the unsatisfactory test. These degraded conditions were repaired and a satisfactory secondary containment drawdown test using the 1A, 1B, and 2A SBGT trains was completed on January 25, 2018.

This event is reportable per 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications since secondary containment was inoperable longer than its allowed TS LCO time. This event is also reportable per 10 CFR 50.73(a)(2)(v)(C) as a condition that could have prevented the fulfillment of the safety function of a system needed to control the release of radioactive material since secondary containment does not have redundancy. However, since a successful secondary containment test was performed within the required LCO completion time after the initial unsatisfactory test without performing any repairs, this event is not reportable as a safety system functional failure per NEI 99-02.

Event Cause Analysis

This cause of the event is due to in-leakage through degraded secondary containment door seals. Increased work traffic for pre-outage activities led to degraded seal integrity for secondary containment doors. It was also discovered that a cable penetration was inadequately repaired with duct tape. After continued troubleshooting to gain margin, two secondary containment isolation dampers were found to not be able to fully close due to broken bolts and mechanical stop interference issues.

Safety Assessment

The secondary containment system contains the primary containment system and other nuclear systems, and limits the ground-level release of airborne radioactive material. It provides a means for a controlled elevated release of the building atmosphere such that offsite doses from a fuel-handling or loss-of-coolant accident (LOCA) will be below the guideline values stated in 10 CFR 50.67. It is designed to provide secondary containment when the primary containment is closed and in service, and to provide primary containment when



**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 Unit 1	05000-321	2018	- 001	- 00

the primary containment is open, e.g., during a refueling outage. Secondary containment is isolated on the same signals that actuate the Standby Gas Treatment (SBGT) system. Activation of the SBGT demonstrates the integrity of the reactor building (secondary containment). The SBGT system establishes and maintains a negative pressure (0.2 inches water) within the secondary containment.

The following four types of accidents are analyzed for potential dose consequences: a LOCA, a main steam line break (MSLB), a control rod drop accident (CRDA), and a fuel handling accident (FHA). Of these four accidents, only the LOCA analysis relies upon operability of secondary containment and the SBGT system to mitigate doses. This analysis assumes secondary containment draws down to a differential pressure (dp) of 0.2 inches water gauge with respect to the atmosphere in 10 minutes. Therefore, since a successful secondary containment drawdown test was performed using the 1B, 2A, and 2B SBGT trains after the initial unsatisfactory test, this event is considered to have very low safety significance.

Corrective Actions

The degraded door seals were repaired. An open penetration and two degraded secondary containment isolation dampers were also repaired to improve margin. As part of an extent of condition review, additional isolation dampers were identified as degraded and will be repaired. The secondary containment door preventative maintenance procedure will be revised such that future secondary containment door inspections are subject to a smoke leak test. The corrective maintenance procedure for the associated isolation damper actuators will also be revised to require a visual inspection to confirm the secondary containment isolation dampers stroke fully close.

Previous Similar Events

None.