Southern Nuclear

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Docket No: 50-425

NL-19-0552

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

Vogtle Electric Generating Plant – Unit 2
Licensee Event Report 2019-001-00
Spurious Closure of Main Steam Isolation Valve results in Manual Reactor Trip

Ladies and Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(iv)(A), Southern Nuclear Operating Company is submitting the enclosed Licensee Event Report, 2019-001-00 for Vogtle Electric Generating Plant Unit 2. This letter contains no NRC commitments. If you have any questions, please contact Matthew Horn at (706) 848-1544.

Respectfully submitted,

B. Keith Taber
Vice President
Vogtle 1&2

BKT/KCW

Enclosure: Unit 2 Licensee Event Report 2019-001-00

Cc: Regional Administrator
NRR Project Manager – Vogtle 1 & 2
Senior Resident Inspector – Vogtle 1 & 2
RType: CVC7000

Vogtle Electric Generating Plant – Unit 2
Licensee Event Report 2019-001-00
Spurious Closure of Main Steam Isolation Valve results in Manual Reactor Trip

Enclosure

Unit 2 Licensee Event Report 2019-001-00

NRC FORM 366 (04-2018) | U.S. NUCLEAR REGULATORY COMMISSION | APPROVED BY OMB: NO. 3150-0104 | EXPIRES: 03/31/2020

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/)

1. Facility Name	2. Docket Number	3. Page
Vogtle Electric Generating Plant, Unit 2	05000425	1 OF 2

4. Title

Spurious Closure of Main Steam Isolation Valve results in Manual Reactor Trip

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
									N/A	05000
03	30	2019	2019	- 001	- 00	05	28	2019	Facility Name: N/A	Docket Number: 05000

9. Operating Mode	11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☒ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
10. Power Level	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
030	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(C)	☐ 73.77(a)(1)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(D)	☐ 73.77(a)(2)(ii)
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(iii)
		☐ 50.73(a)(2)(i)(C)	☐ Other (Specify in Abstract below or in NRC Form 366A	

12. Licensee Contact for this LER

Licensee Contact	Telephone Number (Include Area Code)
Vogtle Electric Generating Plant, Matthew Horn, Regulatory Affairs Manager	706-848-1544

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

Cause	System	Component	Manufacturer	Reportable To ICES	Cause	System	Component	Manufacturer	Reportable To ICES
B	SB	RLY	T351	Y	N/A				

14. Supplemental Report Expected	15. Expected Submission Date	Month	Day	Year
☐ Yes (If yes, complete 15. Expected Submission Date) ☒ No		N/A	N/A	N/A

Abstract (Limit to 1400 spaces, i.e., approximately 14 single-spaced typewritten lines)

On March 30, 2019 at 2130, while Unit 2 was in Mode 1 and 30 percent power, exiting a refueling outage, when one of the Main Steam Isolation Valves (MSIV) failed closed unexpectedly. This resulted in an inability to maintain Steam Generator (SG) levels and pressures. The unit was manually tripped. All systems responded as designed. All control rods fully inserted into the core, auxiliary feedwater was started, and decay heat was removed through the main steam lines through the steam dumps and into the condenser. The plant was stabilized in Mode 3.

Due to the manual actuation of systems listed in 10 CFR 50.73(a)(2)(iv)(B), specifically the Reactor Protection System and the Auxiliary Feedwater System, this event is reportable under 10 CFR 50.73(a)(2)(iv)(A).

Because all systems responded as designed and had no adverse effects on the health and safety of the public, this event is of very low safety significance.

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/nureqs/staff/sr1022/r3/)

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO
Vogtle Electric Generating Plant, Unit 2	05000425	2019	- 001	- 00

NARRATIVE

A. Event Description

On March 30, 2019 at 2130, while Unit 2 was operating in Mode 1 at 30 percent power, exiting a refueling outage, when the number 4 Main Steam Isolation Valve (MSIV) unexpectedly closed due to the failure of a control relay coil. The control relay had been recently installed and passed its post-maintenance testing and had been energized for several days prior to the failure, which is its normal operating state. The operating crew attempted to reopen the valve, but this was unsuccessful. Because they were unable to reopen the valve, the operating crew initiated a manual reactor trip. This resulted in a manual actuation of the Reactor Protection System and actuation of the Auxiliary Feedwater System. All systems responded as expected. The control rods fully inserted into the core, auxiliary feedwater was started, and decay heat was removed through the main steam lines, through the steam dumps, and into the condenser.

Because of the manual actuation of the Reactor Protection System and the Auxiliary Feedwater System, which are systems listed in 10 CFR 50.73(a)(2)(iv)(B), this event is reportable under 10 CFR 50.73(a)(2)(iv)(A).

B. Cause of Event

The cause of the event was a failure of a control relay coil due to infant mortality.

C. Safety Assessment

The safety significance of this event is very low. When the reactor was tripped, all systems responded as designed. All control rods fully inserted into the core, auxiliary feedwater was started, and decay heat was removed through the main steam lines and into the condenser.

There were no adverse effects to the health and safety of the public.

D. Corrective Actions

The relay was replaced with another relay from a different manufacturing batch.

E. Previous Similar Events

None