



August 5, 2024
L-2024-115
10 CFR 50.73

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Re: St. Lucie Unit 2
Docket No. 50-389
Reportable Event: 2024-03-00
Date of Event: June 4, 2024

Unplanned Reactor Scram

The attached Licensee Event Report, 2024-03, is being submitted pursuant to the requirements of 10 CFR 50.73 to provide notification of the subject event.

Should you have any questions regarding this submission, please contact Mr. Kenneth Mack, Senior Manager Licensing and Reg Compliance – Nuclear Fleet, at 561-904-3635.

This letter contains no new or modified regulatory commitments.

Sincerely,

Kenneth Mack for

Paul Rasmus
General Manager – Regulatory Affairs – Nuclear Fleet
Florida Power & Light Company

Attachment

cc: St. Lucie NRC Senior Resident Inspector
St. Lucie Station NRC Program Manager



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	<input checked="" type="checkbox"/> 050 <input type="checkbox"/> 052	2. Docket Number	3. Page
St. Lucie Unit 2		00389	1 OF 2

4. Title
Unplanned Reactor Scram

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	<input type="checkbox"/> 050	Docket Number
06	04	2024	2024	- 03 -	00	8	5	2024	Facility Name	<input type="checkbox"/> 052	Docket Number

9. Operating Mode	10. Power Level
1	92

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	Phone Number (Include area code)
Bob Murrell	319-651-9496

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
B	NN	IEF	N/A	Y					

14. Supplemental Report Expected		15. Expected Submission Date	Month	Day	Year
<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date)				

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

On June 4, 2024, at 1352 EDT, while in Mode 1 with Unit 2 at 92 percent power, the reactor was manually tripped due to a loss of condenser vacuum resulting from a circulating water pump (CWP) trip. The circulating water pump (2B2) trip was caused by the inability of the interlock circuit to provide the inhibiting function from the condenser outlet motor operated valve limit switch auxiliary contact. There were no Systems, Structures, or Components that were inoperable at the start of the event that contributed to the event. This event is being reported pursuant of 10 CFR 50.73(a)(2)(iv)(A), System Actuation.



LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

(See NUREG-1022, R.3 for instruction and guidance for completing this form
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1. FACILITY NAME		<input checked="checked" type="checkbox"/> 050	2. DOCKET NUMBER	3. LER NUMBER		
St. Lucie Unit 2		<input type="checkbox"/> 052	00389	YEAR	SEQUENTIAL NUMBER	REV NO.
				2024	03	00

NARRATIVE

Description of Event:

On June 4, 2024, at 1352 EDT, while in Mode 1 with Unit 2 at 92 percent power, the reactor was manually tripped due to a loss of condenser vacuum resulting from a circulating water pump (CWP) trip. There were no Systems, Structures, or Components that were inoperable at the start of the event that contributed to the event. This event is being reported pursuant of 10 CFR 50.73(a)(2)(iv)(A), System Actuation.

Cause of Event:

On June 4, 2024, at 1345 EDT, St. Lucie Unit 2 experienced a malfunction of the condenser outlet valve (MV-21-5A2) limit switch. The malfunction resulted in a trip of the 2B2 CWP that required a manual reactor trip due to low condenser vacuum.

The 2B2 CWP trip was caused by the inability of the interlock circuit to provide the inhibiting function from the condenser outlet motor operated valve limit switch auxiliary contact. The limit switch for the valves are auxiliary contacts that do not provide indication to the Control Room.

Safety Significance:

This event did not prevent any safety systems from performing their safety related functions based on the minimal amount of leakage identified.

This Licensee Event Report is being reported pursuant of 10 CFR 50.73(a)(2)(iv)(A), System Actuation.

This event did not result in a Safety System Functional Failure.

Corrective Actions:

Operating procedures were revised to require the removal of control fuses from the CWP breaker.

Similar Events:

A review of events over the past 5 years did not identify any unplanned reactor scrams as a result of a CWP trip.