



10 CFR 50.73  
L-2022-003  
January 6, 2022

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

RE: Turkey Point Unit 3  
Docket No. 50-250  
Reportable Event: 2021-004-00  
Date of Event: November 12, 2021  
Title: Through-Wall Leakage from Core Exit Thermocouple Tubing

The attached Licensee Event Report 05000250/2021-004-00 is submitted pursuant to 10 CFR 50.73 (a)(2)(ii)(A), due to a degraded pressure boundary.

If there are any questions, please call Mr. Robert Hess at 305-246-4112 or e-mail Robert.Hess@fpl.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'M. Pearce', is located below the 'Sincerely,' text.

Michael Pearce  
Site Vice President – Turkey Point Nuclear Plant  
Florida Power & Light Company

Attachments: USNRC Forms 366 and 366A, current revision

cc: USNRC Senior Resident Inspector, Turkey Point Plant  
USNRC Regional Administrator, Region II



# **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](mailto:Infocollections.Resource@nrc.gov), and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk all: [oir\\_submission@omb.eop.gov](mailto:oir_submission@omb.eop.gov). 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.

<b>1. Facility Name</b> Turkey Point Unit 3	<b>2. Docket Number</b> 05000	<b>3. Page</b> 250 1 OF 2
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<b>4. Title</b> Through-Wall Leakage from Core Exit Thermocouple Tubing
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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
11	12	2021	2021	- 004 -	00	01	06	2022	Facility Name	05000
									Facility Name	Docket Number
										05000

<b>9. Operating Mode</b> Mode 3	<b>10. Power Level</b> 0
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## **11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)**

<input type="checkbox"/> <b>10 CFR Part 20</b>	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.36(c)(2)	<input 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)	<b>10 CFR Part 73</b>
<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)	<b>10 CFR Part 21</b>	<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)	<b>10 CFR Part 50</b>	<input checked="" 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)	
<input type="checkbox"/> <b>OTHER</b> (Specify here, in abstract, or NRC 366A).				

## **12. Licensee Contact for this LER**

<b>Licensee Contact</b> David Stoia - Licensing Engineer	<b>Phone Number (Include area code)</b> 305-246-6538
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## **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
A	IM	TE		Y					

14. Supplemental Report Expected		15. Expected Submission Date	Month	Day	Year
<input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date)		06	17	2022

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

On 11/12/2021 at 16:05, while Unit 3 was in Mode 3 at 0% power, through-wall leakage was verified from 3/8" tubing associated with a Reactor Vessel Core Exit Thermocouple. The leakage was identified during the Class 1 leak inspection performed at Normal Operating Pressure and Temperature (NOP/NOT) conditions at the end of the Unit 3 Cycle 32 refueling outage.

At 20:47, pursuant to 10 CFR 50.72(b)(3)(ii)(A), FPL performed the 8-hour non-emergency notification to the NRCOC. Unit 3 was brought to Mode 5 and the repairs were completed. The Class 1 leak inspection was satisfactorily performed after NOP/NOT conditions were reestablished. Unit 3 has since been returned to service from the refueling outage and is operating at 100% power.

This Licensee Event Report is required per 10 CFR 50.73 (a)(2)(ii)(A).

**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	2. DOCKET NUMBER	3. LER NUMBER		
Turkey Point Unit 3	05000-250	YEAR 2021	SEQUENTIAL NUMBER 004	REV NO. 00

**NARRATIVE****EVENT DESCRIPTION**

On 11/12/2021 at approximately 05:00, while performing the Unit 3 Class 1 primary system leak inspection at Normal Operating Pressure and Temperature (NOP/NOT) conditions at the end of the Cycle 32 refueling outage, a small quantity of boric acid was observed on a section of 3/8" stainless tubing associated with Core Exit Thermocouple (CET) 57. The boric acid was cleaned by the inspectors and no evidence of leakage was immediately evident. At 16:05 the area was re-inspected and boric acid was again present, indicating that a minor through-wall leakage flaw existed on the tubing.

Unit 3 entered TS 3.4.6.2.a for Reactor Coolant system (RCS) pressure boundary leakage. An 8-hour notification (EN# 55574) was made to the NRCOC at 20:47 pursuant to 10 CFR 50.72(b)(3)(ii)(A).

Unit 3 was brought to Mode 5 and the RCS was cooled and depressurized to establish proper maintenance conditions. The flawed section of tubing was removed, and both open ends of the remaining tubing were capped. The CET was abandoned in place. No other through-wall CET tubing flaws were identified.

**CAUSE**

The cause of the through-wall tube leakage is under investigation. The flawed tubing will be cleared for shipment and analyzed to determine the failure mechanism. A supplement to this LER will be submitted after a probable cause is determined.

**SAFETY SIGNIFICANCE**

This safety significance of this event was low. No safety system actuation was required. The through-wall leakage was non-quantifiable and well within RCS makeup capability. No safety margins were challenged or reduced.

**CORRECTIVE ACTIONS**

Corrective Actions will be assigned following the cause investigation and will be described in the supplement to this LER.

**ADDITIONAL INFORMATION**

EIIS Codes are shown in the format [IEEE system identifier, component function identifier, second component function identifier (if appropriate)].

Analysis of the failed section of 3/8" tubing is expected to be completed by April 2022. A supplement to this LER will be submitted after the appropriate cause investigation has been completed.

**SIMILAR EVENTS**

A review for CET pressure boundary leakage events over the previous 10 years was performed to identify similar events or patterns. No similar events were identified.