November 21, 2018
10 CFR § 50.73
L-2018-217

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: 2018-001-00
Date of Event: September 28, 2018
Containment Purge Exhaust Penetration Fails Leak Rate Test

The attached Licensee Event Report 05000250/2018-001-00 is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B) to provide notification of the subject event.

If there are any questions, please call Mr. Robert J. Hess at (305) 246-4112.

Sincerely,

Brian Stamp
Plant General Manager
Turkey Point Nuclear Plant

Attachment

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

NRC FORM 366 (04-2018) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 03/31/2020

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 Information Services Branch (T-2 F43), 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.

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
Turkey Point Unit 3	050000250	1 OF 3

4. Title

Inoperable Containment Purge Exhaust Penetration

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
09	28	2018	2018	- 001	- 00	11	21	2018	Facility Name	Docket Number
									N/A	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)
	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
100	☐ 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)
Stavroula Mihalakea, Licensing Engineer	305-246-6454

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
X	NH	ISV		YES					

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

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

On September 30, 2018, Turkey Point Unit 3 was in Mode 1at 44% power, preparing for the Unit 3 Cycle 30 refueling outage. While performing the Technical Specification surveillance on the containment purge exhaust penetration, PEN 36, failed the as-found local leak rate test (LLRT) with a measurement of 21,000 standard cubic centimeters per minute (sccm), which exceeded the Technical Specification (TS) limit of 13,860 sccm. Review of maintenance history indicates evidence of a similar condition on 9/28/2018, with Unit 3 at 100% power, when a planned LLRT was aborted because of excessive time to achieve a stable test pressure. The containment purge exhaust penetration was inoperable from 9/28/18 at 0920 until 10/01/18 at 1425. Since PEN 36 was not isolated within 24 hours, TS 3.6.1.7, Action b was not met.

Corrective actions include seat adjustment for POV-3-2602, and seat replacement of POV-3-2603. This event is considered of very minor safety significance since the overall system capability was well within acceptable TS limits.

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/)

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Turkey Point Unit 3	05000-250	2018	- 001	- 00

NARRATIVE

Event Description

On September 30, 2018, Turkey Point Unit 3 was in Mode 1 at 44% power, preparing for the Unit 3 Cycle 30 refueling outage. At approximately 0945, the containment penetration for the purge exhaust failed it's as-found local leak rate test (LLRT) Surveillance Requirement was 21,000 standard cubic centimeters per minute (sccm). The Unit 3 purge exhaust penetration TS limit acceptance criterion is 13,860 sccm. Condition Report AR 2282866 was initiated to document this event. Review of maintenance history indicates evidence of a similar condition on 9/28/2018, with Unit 3 at 100% power, when a planned LLRT was aborted because of excessive time to achieve a stable test pressure. Consequently, it was concluded that the first indication was on 9/28/2018, which exceeds the TS time limit for remedial action. (Condition Report AR 2282628).

The containment purge valves are required to be operable in Modes 1-4. Technical Specifications 3.6.1.7, Action b., requires a valve determined inoperable to be restored to operable status or the penetration is to be isolated such that the system is within allowed limits within 24 hours.

The inoperability of the containment purge exhaust penetration, PEN 36, lasted until October 1, 2018 at 1425, when Unit 3 entered Mode 5, at which time operability of the containment purge exhaust penetration was no longer required. Since the containment purge exhaust penetration was inoperable and not isolated within 24 hours, TS 3.6.1.7, Action b., was not met, and this event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

Cause of the Event

The most probable cause for rendering PEN 36 inoperable was a challenge with the outside containment isolation purge valve POV-3-2602 at two locations of the disc/seat interface as well as at several additional locations. The valve seat hardening (aging) of the inside containment purge exhaust valve, POV-3-2603, could also have contributed to the inoperability of PEN 36.

Analysis of Safety Significance

The containment purge exhaust isolation valves are safety related valves. Containment isolation valves and penetrations are tested to ensure the system performing within allowed limits. Even though the containment purge exhaust penetration failed its LLRT for exceeding TS limit leakage acceptance criteria of 13,860 sccm, the overall containment leakage during the time of inoperability was well within TS limits. The increase in risk during the period of inoperability of penetration 36 is judged to be very small. As such, this event is considered of minor safety significance since the overall containment leakage was well within TS limits.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
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Corrective Actions

Corrective actions are documented in the condition report for this event, AR 2282866.

These include:

- Valve inspection and seat adjustment of the outside containment purge exhaust valve POV-3-2602.
- Valve seat replacement for the inside containment purge exhaust valve POV-3-2603.

Failed Components Identified

Containment Purge exhaust power operated isolation valves, POV-3-2602 and POV-3-2603.

Similar Events

There were no similar events reported in the past three years for Turkey Point Units 3 and 4.