Entergy Nuclear Operations, Inc.
Pilgrim Nuclear Power Station
600 Rocky Hill Road
Plymouth, MA 02360

January 25, 2018

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

SUBJECT: Licensee Event Report 2017-013-00, Reportable Conditions Involving Standby Gas Treatment System and Secondary Containment Inoperability Not Reported During the Previous Three Years

Pilgrim Nuclear Power Station
Docket No. 50-293
Renewed License No. DPR-35

LETTER NUMBER: 2.18.001

Dear Sir or Madam:

The enclosed Licensee Event Report 2017-013-00, Reportable Conditions Involving Standby Gas Treatment System and Secondary Containment Inoperability Not Reported During the Previous Three Years, is submitted in accordance with Title 10 Code of Federal Regulations 50.73.

If you have any questions or require additional information, please contact me at (508) 830-7127.

There are no regulatory commitments contained in this letter.

Sincerely,

Peter J. Miner
Acting Manager, Regulatory Assurance

PJM/sc

Attachment: Licensee Event Report 2017-013-00, Reportable Conditions Involving Standby Gas Treatment System and Secondary Containment Inoperability Not Reported During the Previous Three Years (4 pages)

IE22
NRR

cc: Mr. David C. Lew
Acting Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
2100 Renaissance Blvd., Suite 100
King of Prussia, PA 19406-2713

Mr. John Lamb, Project Manager
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Mail Stop O-8C2A
Washington, DC 20555

NRC Senior Resident Inspector
Pilgrim Nuclear Power Station

Attachment

Letter Number 2.18.001

Licensee Event Report 2017-013-00, Reportable Conditions Involving Standby Gas Treatment System and Secondary Containment Inoperability Not Reported During the Previous Three Years

(4 Pages)

8NRC FORM 366 (04-2017) 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/)

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.

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Pilgrim Nuclear Power Station	05000 293	1 OF 4

4. TITLE Reportable Conditions Involving Standby Gas Treatment System and Secondary Containment Inoperability Not Reported During the Previous Three Years

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 N/A
11	26	2017	2017	- 013	- 00	01	25	2018	FACILITY NAME	DOCKET NUMBER
									N/A	05000 N/A

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
N	☐ 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)
100	☐ 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)(i)
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(ii)
		☐ 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)*
Mr. Peter J. Miner - Acting, Regulatory Assurance Manager	508-830-7127

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
X	BH			Y					

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☒ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☐ NO		04	18	18

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

On November 26, 2017, with the Reactor in the Run Mode at 100 percent power, while reviewing a procedure to be performed during normal scheduled testing it was determined that the test as written would cause both trains of Standby Gas Treatment System (SGTS) to be made inoperable during the test. This also made secondary containment system (SCS) inoperable. This LER is submitted to acknowledge that Pilgrim Nuclear Power Station missed providing Event Notifications and LERs for past occurrences. With both trains of SGTS and SCS inoperable while in Run, this event is reportable in accordance with Title 10 Code of Federal Regulations 50.73(a)(2)(v)(C) and 50.73(a)(2)(v)(D) as conditions that could have prevented the fulfillment of the safety function of a structure or system needed to control the release of radioactive material and mitigate the consequences of an accident. This has been determined to be a reportable condition that has not been reported during the past three years involving SGTS and secondary containment inoperability. The reportable conditions have occurred several times within the past three years during scheduled testing of SGTS.

This event had no impact on the health and/or safety of the public.

1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Pilgrim Nuclear Power Station	05000- 293	2017	- 013	- 00

NARRATIVE

BACKGROUND

The Pilgrim Nuclear Power Station (PNPS) Standby Gas Treatment System (SGTS) is part of the Secondary Containment System (SCS) and addresses the SGTS air filtration trains, including the ducting, the exhaust fans, the dampers, and the various filtration media. SCS is designed, in conjunction with other engineered safeguards and nuclear safety systems, to limit the release of radioactive material during normal plant operations within the limits of Title 10 Code of Federal Regulations (10 CFR) Part 20 and to limit the release of radioactive material so that off-site dose from a postulated design basis accident will be below the guideline values in 10 CFR Part 100.

The SGTS discharges processed gases to the Main Stack via underground piping. The Main Stack provides an elevated release point for the processed gases. The mission time for the SCS is 30 days.

PNPS Technical Specification (TS) 3/4.7.B.1 governs the operability requirements of the SGTS. The specification requires that with certain exceptions, the SGTS shall be operable during periods that include reactor power operation (RUN, STARTUP, and HOT SHUTDOWN modes), during movement of irradiated fuel assemblies in secondary containment, during movement of new fuel over the spent fuel pool, during CORE ALTERATIONS, and during operations with a potential for draining the reactor vessel (OPDRVs).

PNPS TS 3.7.C.1 requires secondary containment shall be OPERABLE when in the RUN, STARTUP, and HOT SHUTDOWN modes, during movement of recently irradiated fuel assemblies in the secondary containment, and during OPDRVs.

There are two principal accidents for which credit is taken for secondary containment operability. These are a loss of coolant accident and a fuel handling accident involving "recently irradiated fuel." The SCS performs no active function in response to each of these limiting events; however, its leak tightness is required to ensure that the release of radioactive materials from primary containment is restricted to those leakage paths and associated leakage rates assumed in the accident analysis and that fission products entrapped within the SCS will be treated by the SGTS prior to discharge to the environment.

EVENT DESCRIPTION

On November 26, 2017, with the Reactor in the Run Mode at 100 percent power, while reviewing procedures to be performed during a normal scheduled work week it was determined that if the procedure was performed as written would cause both trains of SGTS and SCS to be made inoperable. A follow up review determined that procedures have been performed several times within the past three years that caused both trains of SGTS and SCS to be made inoperable during scheduled testing of SGTS.

This has been determined to be a reportable condition that has not been reported during the past three years involving the SGTS and SCS inoperability.

With both trains of SGTS and SCS inoperable in the Run mode this event is reportable per the requirements of 10 CFR 50.73(a)(2)(v)(C) and 10 CFR 50.73(a)(2)(v)(D), any event that could have prevented the fulfillment of the safety functions to control the release of radioactive material and mitigate the consequences of an accident.

A Root Cause Evaluation is underway and additional information will be provided at the conclusion of this ongoing investigation.

CAUSE OF THE EVENT

The direct cause of this event is still under investigation and will be provided in a supplement to this LER.

CORRECTIVE ACTIONS

An interim corrective action to place the identified procedures on administrative hold has been implemented.

SAFETY CONSEQUENCES

There were no consequences to the safety of the general public, nuclear safety, industrial safety, or radiological safety due to this event. The actual consequences were a loss of safety function for SCS and SGTS while performing the surveillance.

There was no adverse impact on the public health or safety.

REPORTABILITY

With both trains of SGTS and SCS inoperable in the Run mode, this event is reportable per the requirements of 10 CFR 50.73(a)(2)(v)(C) and 10 CFR 50.73(a)(2)(v)(D), any event or condition that could have prevented the fulfillment of the safety functions to control the release of radioactive material and mitigate the consequences of an accident.

PREVIOUS EVENTS

A review was conducted of PNPS LERs issued in the past five (5) years. The review focused on LERs that involved similar events where the SGTS function was lost. This review identified similar events documented in:

1) LER 2017-004-00 "Secondary Containment Testing Led to Loss of Safety Function"

2) LER 2012-003-00 "Both Trains of Standby Gas Treatment System Inoperable"

REFERENCES

CR-PNP-2017-02900

CR-PNP-2017-11714