Entergy

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Anthony J. Vitale
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PNP 2013-073

October 11, 2013

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

SUBJECT: Both Control Room Ventilation Filtration Trains Declared Inoperable
Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

Dear Sir or Madam:

The enclosed Licensee Event Report (LER) 2013-003-00, "Both Control Room Ventilation Filtration Trains Declared Inoperable" is submitted in accordance with 10 CFR 50.73.

This letter contains no new commitments and no revisions to existing commitments.

Sincerely,

ajv/tad

Attachment: LER 2013-003, Both Control Room Ventilation Filtration Trains Declared Inoperable

CC Administrator, Region III, USNRC
Project Manager, Palisades, USNRC
Resident Inspector, Palisades, USNRC

ATTACHMENT

LER 2013-003

BOTH CONTROL ROOM VENTILATION FILTRATION TRAINS DECLARED INOPERABLE

3 Pages Follow

NRC FORM 366
U.S. NUCLEAR REGULATORY COMMISSION
(10-2010)

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

APPROVED BY OMB NO. 3150-0104 EXPIRES 10/31/2013

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4. TITLE
Both Control Room Ventilation Filtration Trains Declared Inoperable

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
08	13	2013	2013 -	003 -	00	10	11	2013	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE: 1

10. POWER LEVEL: 100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER Specify in Abstract below or in NRC Form 366A
☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☒ 50.73(a)(2)(v)(D)	

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
Otto Gustafson, Licensing Manager	(269) 764-2049

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
A	VI	AHU	A220	Y					

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 15 single-spaced typewritten lines)

At 1102 on August 13, 2013, both control room ventilation filtration system trains were declared inoperable in accordance with Technical Specification (TS) 3.7.10, Condition B, due to the inability to fully close control room envelope (CRE) boundary door-15. At 1111 on August 13, 2013, door-15 was closed and TS 3.7.10, Condition B, was exited. TS 3.7.10 allows CRE boundary doors to be opened intermittently, under administrative control for preplanned activities, provided the doors can be rapidly restored to the design condition.

During preplanned maintenance activities, workers attempting to exit the CRE area were unable to open door-15 via normal operation of the door's hand wheel. Recent frequent operation of door-15 may have caused deformation of a cotter pin within the door's normal operating mechanism. Deformation of the cotter pin could cause the normal operation of door-15 to function intermittently. To allow exiting, workers opened door-15 using the emergency egress latch that activated an alarm condition on the door. During exiting, inadvertent operation of the door's hand wheel in the closed direction caused the door's latching pins to extend out causing interference between the door and the door frame preventing door-15 from fully closing. Due to the door being in an alarmed condition, the door's latching pins were unable to be immediately retracted. After approximately nine minutes, the door's latching pins were retracted by use of the emergency egress latch and the door was restored to the design condition, i.e., closed.

The cotter pin was replaced. Future potential corrective actions include increased preventative maintenance frequency to replace the cotter pin and restricting the use of the emergency egress latch.

SYSTEM DESIGN/FUNCTION

The control room ventilation [AHU] filtration system [VI] safety function is to limit radiation exposure of control room personnel during any of the postulated design basis events within the guidelines of 10 CFR 50, Appendix A and General Design Criterion 19. Specifically, control room ventilation filtration is designed to maintain a habitable environment in the control room for 30 days of occupancy after a design basis accident without exceeding a five rem total effective dose equivalent.

EVENT DESCRIPTION

In Mode 1 at 100% power, at 1102 on August 13, 2013, both control room ventilation filtration system trains were declared inoperable in accordance with Technical Specification (TS) 3.7.10, Condition B, due to the inability to fully close control room envelope (CRE) boundary door-15. At 1111 on August 13, 2013, door-15 was closed and TS 3.7.10, Condition B, was exited. TS 3.7.10 allows CRE boundary doors to be opened intermittently, under administrative control for preplanned activities, provided the doors can be rapidly restored to the design condition.

At the time of the event, left (A) train of the control room ventilation filtration was inoperable for preplanned maintenance. No additional structures, components, or systems were inoperable and contributed to the event at the time of discovery.

The event was initially reported to the NRC in accordance with 10 CFR 50.72(b)(3)(v)(D) as documented in event report #49276. This LER is submitted based on NUREG 1022 revision 3, section 3.2.7 guidance which identifies that the requirements of 10 CFR 50.73(a)(2)(v)(D) apply when a system that is used to mitigate the consequences of an accident was declared TS inoperable and no redundant system or equipment could be declared operable. Based on the limited amount of air in-leakage into the CRE with door-15 only slightly open for nine minutes, the subsequent engineering evaluation determined the right (B) train of the control room ventilation filtration system would have maintained the ability to limit control room operator doses below required limits and no loss of safety function occurred.

CAUSE OF THE EVENT

During preplanned maintenance activities, workers attempting to exit the CRE area were unable to open door-15 via normal operation of the door's hand wheel. Recent frequent operation of door-15 may have caused deformation of a cotter pin within the door's normal operating mechanism. Deformation of the cotter pin could cause the normal operation of door-15 to function intermittently. To allow exiting, workers opened door-15 using the emergency egress latch that activated an alarm condition on the door. During exiting, inadvertent operation of the door's hand wheel in the closed direction caused the door's latching pins to extend out causing interference between the door and the door frame preventing door-15 from fully closing. Due to the door being in an alarmed condition, the door's latching pins were unable to be immediately retracted. After approximately nine minutes, the door's latching pins were retracted by use of the emergency egress latch and the door was restored to the design condition, i.e., closed.

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ASSESSMENT OF SAFETY CONSEQUENCES

The temporary loss of ability to fully close door-15 did not challenge nuclear or radiological safety. No actual loss of safety function occurred. The control room ventilation filtration system maintained the ability to limit control room operator doses below required limits.

CORRECTIVE ACTIONS TAKEN

The cotter pin within the door's normal operating mechanism was replaced.

CORRECTIVE ACTIONS TO BE TAKEN

Potential corrective actions include increased frequency of preventative maintenance to replace the cotter pin and restricting the use of the emergency egress latch. Additionally, to limit wear on door components during periods of expected frequent operation, the implementation of administrative controls that would maintain the door in the open position with dedicated personnel stationed at the door to immediately close the door when required.

PREVIOUS SIMILAR EVENTS

Palisades has experienced operating issues with door-15 on previous occasions; however the previous events did not require submittal of a LER under the guidance of NUREG 1022, revision 2.