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10 CFR § 50.73
L-2009-132

MAY 29 2009

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: 2009-001-00
Date of Event: April 1, 2009
Procedure Inadequacy Causes Control Room Ventilation Isolation Technical Specification Noncompliance

The attached Licensee Event Report 05000250/2009-001-00 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 Tomonto at 305-246-7327.

Very truly yours,

Mark Kiff for Bill Jefferson

William Jefferson, Jr.
Vice President
Turkey Point Nuclear Plant

Attachment

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

IE22
NRR

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 08/31/2010

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
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4. TITLE

Procedure Inadequacy Causes Control Room Ventilation Isolation Technical Specification Noncompliance

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
4	1	2009	2009	- 001 -	00	5	29	2009	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE

6

10. POWER LEVEL

0

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

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☒ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
Paul F. Czaya	305-246-7150

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

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
-	-	-

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

On April 1, 2009, with Unit 3 in Mode 6 and core alteration and irradiated fuel movement in containment in progress, Operations personnel identified a noncompliance with Technical Specification (TS) Limiting Condition for Operation 3.3.2, Table 3.3-2, Functional Unit 9.a, Control Room Ventilation Isolation. TS Table 3.3-2, Functional Unit 9.a, requires both actuation logic channels to be operable during core alteration. One channel of actuation logic was rendered inoperable by procedure for the Engineered Safeguards Integrated Test (ESIT) which was being performed concurrently with core alteration. With one actuation logic channel inoperable, the actions of TS 3.9.13 are to be taken. TS 3.9.13, Action b, requires the Control Room Emergency Ventilation System (CREVS) to be isolated and placed in the recirculation mode of operation. Upon identification of this TS noncompliance, Operations personnel isolated the CREVS and placed it in the recirculation mode of operation. The apparent cause is attributed to inadequate governing procedures that focused on operability of the containment radiation monitors, not the actuating circuitry for the CREVS. Corrective action is to revise the governing procedures to ensure that TS 3.9.13, Action b, is followed when one containment ventilation isolation rack is de-energized for ESIT and core alteration is in progress. Safety significance is considered to be very low since there was no loss of safety function as one channel of CREVS actuation logic was operable.

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NARRATIVE

DESCRIPTION OF THE EVENT

On April 1, 2009, with Unit 3 in Mode 6 and core alteration and irradiated fuel movement in containment [NH] in progress, Operations personnel identified a potential noncompliance with Technical Specification (TS) Limiting Condition for Operation (LCO) 3.3.2, Table 3.3-2, Functional Unit 9.a, Control Room Ventilation Isolation. TS Table 3.3-2, Functional Unit 9.a, requires both actuation logic channels [IL, CHA] to be operable during core alteration. One channel of actuation logic was rendered inoperable by procedure for the Engineered Safeguards Integrated Test (ESIT) which was being performed concurrently with core alteration. With one actuation logic channel inoperable, the actions of TS 3.9.13 are to be taken. TS 3.9.13 actions require the Control Room Emergency Ventilation System (CREVS) [VI] to be isolated and placed in the recirculation mode of operation. Upon identification of this potential TS noncompliance, Operations personnel isolated the CREVS and placed it in the recirculation mode of operation.

Condition Report 2009-9899 was initiated to address the issue and subsequent evaluation determined that TS LCO 3.3.2, Table 3.3-2, Functional Unit 9.a, was not met and the required action had not been taken within the required time. This is a condition prohibited by the TSs and is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

CAUSE OF THE EVENT

The apparent cause is attributed to inadequate governing procedures for the ESIT and refueling preparations that focused on operability of the containment radiation monitors [IL, MON], not the actuating circuitry for the CREVS.

ANALYSIS OF THE EVENT

Background

The function of the control room ventilation system is to provide a controlled environment for the comfort and safety of control room [NA] personnel and to assure the operability of control room components during normal operating, anticipated operational occurrence, and design basis accident conditions.

The design basis of the system with respect to radiological emergencies is to be capable of automatically starting under accident conditions to initiate control room pressurization and filtration, assuming the occurrence of a single active damper [VI, DMP] or supply fan [VI, FAN] failure.

The design basis of the system with respect to other emergencies that could affect the control room environment is to be capable of manual actuation. Additionally, multiple self-contained breathing apparatus units are in and near the control room for use by control room personnel during accidental releases of toxic gases.

NARRATIVE

The control room ventilation system, which normally draws in fresh air from the outside, also has the capability to go into a recirculation mode. In the recirculation mode, fresh and recirculated air is processed through High Efficiency Particulate Air filters [VI, FLT] and charcoal filters [VI, ADS] to maintain the control room environment acceptable during adverse radiological conditions.

Analysis

CREVS is a common system that has two actuation trains. CREVS actuation is from four sources:

- Test switch [VI, HS]
- Control Room ventilation radiation monitor
- Unit 3 Containment Ventilation Isolation lockout relay [IL, RLY, 86] 3-86/CIV11 in Containment Isolation Rack [JM, RK] 3QR50
- Unit 4 Containment Ventilation Isolation lockout relay 4-86/CIV11 in Containment Isolation Rack 4QR50

For Unit 3, the normally closed contact [IL, CNTR] from 3-86/CIV11 requires this lockout relay to energize in order to actuate CREVS. This relay energizes from Containment Isolation Rack 3QR50 upon an actuation signal from safety injection [BQ] or either containment radiation monitor.

The ESIT procedure for the 3B Train requires disabling Train A of Containment Isolation Rack 3QR50. When this step was completed, the vital DC power source [EJ] for 3-86/CIV11 was removed, preventing CREVS initiation by the 3A channel of actuating circuitry from the containment radiation monitors. With core alteration in progress, TSs required either both channels of CREVS actuating circuitry to be operable or CREVS to be in operation in the recirculation mode. Core alteration occurred for a period of approximately 7 hours and 13 minutes while CREVS was not isolated and on recirculation operation with one channel of actuation logic out of service.

Reportability

TS LCO 3.3.2, Table 3.3-2, Function Unit 9, Control Room Ventilation Isolation, for Automatic Actuation Logic and Actuation Relays (9.a) specifies two total number of channels, one channel to trip and two minimum channels operable. This requirement is applicable in Modes 1, 2, 3, 4, and 6**. Mode 6** is "Only during CORE ALTERATION or movement of irradiated fuel within the containment."

Action 16 of Table 3.3-2 applies when the minimum channels operable requirement is not met. Action 16 states:

> With less than the Minimum Channels OPERABLE requirement, comply with the ACTION statement requirements of Specification 3.3.3.1 Item 1a of Table 3.3-4.

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Action 27 of Table 3.3-4 applies to TS 3.3.3.1, Item 1a, Containment Atmosphere Radioactivity-High (Particulate or Gaseous), when in Modes 5 and 6. Action 27, in part, is as follows:

> During CORE ALTERATION or movement of irradiated fuel within the containment: With the number of OPERABLE Channels less than the Minimum Channels OPERABLE requirements, comply with ACTION statement requirements of Specification 3.9.9 and 3.9.13.

Action 16 of TS Table 3.3-2 directs compliance only with the action requirements of Table 3.3-4 and not with the LCO requirements for containment radiation monitoring. Action 27 is directly entered and only the last paragraph of Action 27 (shown above) is applicable during core alteration. Since the minimum channels operable requirement from TS Table 3.3-2 was not met, this action directs compliance with the action requirements of TSs 3.9.9 and 3.9.13.

The action requirements of TS 3.9.13 are:

a) With one or both radiation monitors inoperable, operation may continue provided the containment ventilation isolation valves are maintained closed.

b) With one or both radiation monitors inoperable, within 1 hour isolate the Control Room Emergency Ventilation System and initiate operation of the Control Room Emergency Ventilation System in the recirculation mode.

TS 3.9.9 Actions and TS 3.9.13, Action a, were complied with; however, TS 3.9.13, Action b, was not. If only one CREVS actuation channel is available, TS 3.3.2, Table 3.3-2, Functional Unit 9.a, is not met. Action 16 of Table 3.3-2, Functional Unit 9.a, leads to compliance with the actions of TS 3.9.13. If core alteration or movement of irradiated fuel is occurring within containment, then within 1 hour the control room ventilation system must be isolated and placed in recirculation mode if one of the two actuation logic channels is inoperable. Since core alteration and movement of irradiated fuel occurred in containment for a period of approximately 7 hours and 13 minutes while the control room ventilation system was not isolated and on recirculation operation with one channel of actuation logic out of service due to containment isolation rack 3QR50 de-energized, Action 16 of Table 3.3-2, Functional Unit 9.a, was not met.

This is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B):

> "Any operation or condition which was prohibited by the plant's Technical Specifications except when:
> (1) The Technical Specification is administrative in nature;
> (2) The event consisted solely of a case of a late surveillance test where the oversight was corrected, the test was performed, and the equipment was found to be capable of performing its specified safety functions; or
> (3) The Technical Specification was revised prior to discovery of the event such that the operation or condition was no longer prohibited at the time of discovery of the event."

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The event does not meet any of the three exceptions for reporting in 10 CFR 50.73(a)(2)(i)(B) and so it is reportable.

ANALYSIS OF SAFETY SIGNIFICANCE

There was no loss of safety function as one channel of CREVS actuation logic was operable during the time that core alteration occurred with the other channel disabled. In addition, the two containment radiation monitors that provide input to the actuation channel were operable. No event requiring actuation of CREVS occurred. Considering the above, safety significance is considered to be very low.

CORRECTIVE ACTIONS

Revise the governing procedures for the ESIT and refueling preparations to ensure that TS 3.9.13, Action b, is followed when one containment ventilation isolation rack is de-energized for ESIT and core alteration is in progress. This applies to both Units 3 and 4.

ADDITIONAL INFORMATION

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

FAILED COMPONENTS IDENTIFIED: None

PREVIOUS SIMILAR EVENTS

Refueling Outage PT424 (Turkey Point Unit 4, Cycle 24)

4QR50 was de-energized between 4/22/08 20:30 and 4/23/08 14:45.
Fuel movement took place between 4/22/08 01:05 and 4/23/08 21:38.
Control room was on recirculation for portions of ESIT, but not during the entire reload.

Refueling Outage PT423

4QR50 was de-energized between 11/19/06 10:03 and 11/24/06 03:40.
Fuel movement took place between 11/19/06 07:26 and 11/22/06 04:53.
Control room was on recirculation prior to the start of fuel movement and for portions of ESIT, but not during the entire reload.

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TEXT CONTINUATION

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Refueling Outage PT323

3QR50 was de-energized between 9/26/07 11:20 and 9/28/07 09:51.
Fuel movement took place between 9/26/07 02:02 AND 9/28/07 10:59.
Control room was on recirculation for portions of ESIT, but not during the entire reload.

During the prior two outages (PT422 and PT322), fuel movement did not occur concurrent with containment isolation racks de-energized for ESIT.