



AUG 01 2011
L-2011-276
10 CFR 50.90

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

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 50-251
Supplemental Response Regarding License Amendment Request No. 194,
Control Room Habitability TSTF-448, and Changes to Technical Specification 3.7.5,
Control Room Emergency Ventilation System (TAC Nos. ME0004 and ME0005)

References:

- (1) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2010-004), "License Amendment Request (LAR 194) – Control Room Habitability TSTF-448, (TAC NOS. ME0004 AND ME0005)," Accession No. ML102010386, July 16, 2010.
- (2) Email from J. Paige (NRC) to Bob Tomonto (FPL), "Turkey Point Units 3 and 4: Requests for Additional Information," Accession No. ML11167A291 June 16, 2011.
- (3) M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2011-264), "License Amendment Request (LAR 194) – Control Room Habitability TSTF-448, Requests for Additional Information, (TAC NOS. ME0004 AND ME0005)," July 18, 2011.
- (4) W. Jefferson (FPL) to U.S. Nuclear Regulatory Commission (L-2009-133), "License Amendment Request 196: Alternative Source Term and Conforming Amendment," Accession No. ML092050277, June 25, 2009.
- (5) J. Paige (NRC) to M. Nazar (FPL), "Turkey Point Units 3 and 4, Issuance of Amendments Regarding Alternative Source Term (TAC Nos. ME1624 and ME1625)," Accession No. ML110800666, June 23, 2011.

By letter L-2010-004 dated July 16, 2010 [Reference 1], Florida Power and Light (FPL) Company requested an amendment to Facility Operating Licenses DPR-31 and DPR-41 for Turkey Point Units 3 and 4 Technical Specifications (TS). The proposed amendment would modify the TS requirements related to control room envelope habitability in accordance with Technical Specification Task Force (TSTF) Change Traveler TSTF-448 Revision 3, "Control Room Habitability."

On June 16, 2011, FPL received Requests for Additional Information (RAI) via email [Reference 2] from the U.S. Nuclear Regulatory Commission (NRC) Project Manager (PM) containing five questions regarding License Amendment Request (LAR) No. 194, Control Room Habitability TSTF-448. On July 18, 2011, FPL provided its responses to the RAI via letter L-2011-264 [Reference 3]. The proposed amendment would revise Control Room Emergency Ventilation System (CREVS) TS 3.7.5, Limiting Conditions for Operation (LCO), Action Statements, Surveillance Requirements (SR), and add new administrative program requirements on Control Room Habitability to TS 6.8.4.

By letter L-2009-133 dated June 25, 2009 [Reference 4], FPL requested an amendment to Facility Operating Licenses DPR-31 and DPR-41 for the Turkey Point (PTN) Units 3 and 4 TS. The proposed amendments revise the TS in order to adopt the alternative source term (AST) as allowed in 10 CFR 50.67. On June 23, 2011, the NRC approved AST LAR No. 196 and issued License Amendment Nos. 244 and 240 for PTN Units 3 and 4, respectively [Reference 5].

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Discussions between FPL and the NRC PM just prior to the approval of LAR No. 196 revealed some additional clarification to TS 3.7.5 Action a.5 was still needed. However, it was agreed that such changes would be addressed as part of LAR No. 194 to preclude further delay in issuance of the AST amendments. The requested clarification to TS 3.7.5 Action a.5, as approved under LAR No. 196, is presented with the TSTF-448 proposed changes in the Attachment to this letter.

The Turkey Point Plant Nuclear Safety Committee has reviewed the proposed changes to the Technical Specifications and has concluded that the changes do not involve a significant hazards consideration. This submittal does not alter the significant hazards consideration previously submitted by FPL letters L-2010-004 [Reference 1] and L-2010-083 [Reference 5] nor does it alter the environmental assessment previously submitted by FPL letter L-2009-133 [Reference 4].

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

In accordance with 10 CFR 50.91(b)(1), a copy of this letter is being forwarded to the State Designee of Florida.

Should you have any questions regarding this submittal, please contact Mr. Robert J. Tomonto, Licensing Manager, at (305) 246-7327.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 1, 2011.

Very truly yours,

A handwritten signature in black ink that reads "E-mailing for M. Kiley". The signature is written in a cursive, flowing style.

Michael Kiley
Site Vice President
Turkey Point Nuclear Plant

Attachment

cc: USNRC Regional Administrator, Region II
USNRC Project Manager, Turkey Point Nuclear Plant
USNRC Resident Inspector, Turkey Point Nuclear Plant
Mr. W. A. Passetti, Florida Department of Health

Attachment

Supplemental Response Regarding LAR No. 194, Control Room Habitability TSTF-448,
and Changes to Technical Specification 3.7.5, CREVS

Supplemental Response Regarding LAR No. 194 Control Room Habitability TSTF-448

By letter L 2010-004 dated July 16, 2010 [Reference 1], Florida Power and Light (FPL) Company requested an amendment to Facility Operating Licenses DPR-31 and DPR-41 for Turkey Point Units 3 and 4 Technical Specifications (TS). The proposed amendment would modify TS requirements related to control room envelope habitability in accordance with Technical Specification Task Force (TSTF) Change Traveler TSTF-448 Revision 3, "Control Room Habitability."

On June 16, 2011, FPL received Requests for Additional Information (RAI) via email [Reference 2] from the U.S. Nuclear Regulatory Commission (NRC) Project Manager (PM) containing five questions regarding License Amendment Request (LAR) No. 194, Control Room Habitability TSTF-448. On July 18, 2011, FPL provided its responses to the RAI via letter L-2011-264 [Reference 3]. The proposed amendment would revise Control Room Emergency Ventilation System (CREVS) TS 3.7.5, Limiting Conditions for Operation (LCO), Action Statements, Surveillance Requirements (SR), and add new administrative program requirements on Control Room Habitability to TS 6.8.4.

By letter L-2009-133 dated June 25, 2009 [Reference 4], FPL requested an amendment to Facility Operating Licenses DPR-31 and DPR-41 for the Turkey Point (PTN) Units 3 and 4 TS. The proposed amendments revise the TS in order to adopt the alternative source term (AST) as allowed in 10 CFR 50.67. On June 23, 2011, the NRC approved AST LAR No. 196 and issued License Amendment Nos. 244 and 240 for PTN Units 3 and 4, respectively [Reference 5].

Discussions between FPL and the NRC PM just prior to the approval of LAR No. 196 revealed some additional clarification to TS 3.7.5 Action a.5 was still needed. However, it was agreed that such changes would be addressed as part of LAR No. 194 to preclude further delay in issuance of the AST amendments. The requested clarification to TS 3.7.5 Action a.5, as approved under LAR No. 196, combined with the TSTF-448 proposed changes is presented below.

TS 3.7.5 LCO, ACTIONS, and SRs

A revision to the proposed wording in TS 3.7.5 ACTION a.5 is provided to clarify the specific actions to be taken when the filter train is inoperable for reasons other than an inoperable CRE boundary, e.g., the compensatory filtration unit is to be placed into service if the filter itself is inoperable. The proposed TSTF-448 changes to the TS 3.7.5 LCO, Actions, and Surveillance Requirements, as approved for LAR No. 196 Alternative Source Term (Amendments 244 and 240), are shown in Figure 1.

Current

TS 3.7.5 (as approved in Amendments 244 and 240)

LIMITING CONDITION FOR OPERATION

3.7.5 The Control Room Emergency Ventilation System shall be OPERABLE with

- a. Three air handling units,
- b. Two of three condensing units,
- c. Two control room recirculation fans,
- d. Two recirculation dampers,
- e. One filter train,
- f. Two isolation dampers in the normal outside air intake duct,
- g. Two isolation dampers in the emergency outside air intake duct,
- h. Two isolation dampers in the kitchen area exhaust duct, and
- i. Two isolation dampers in the toilet area exhaust duct.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3, and 4:

- a.1 With one air handling unit inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable air handling unit to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.2 With two condensing units inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore at least one of the inoperable condensing units to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.3 With one recirculation fan inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable fan to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.4 With one recirculation damper inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the recirculation dampers in the open position and place the system in recirculation mode** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.5 With the filter train inoperable, e.g., an inoperable filter, and/or two inoperable recirculation fans, and/or two inoperable recirculation dampers, immediately suspend all movement of irradiated fuel and, immediately, initiate action to implement mitigating actions, and, within 24 hours, verify mitigating actions ensure control room occupant radiological exposures will not exceed limits and, within 7 days, restore the filter train to OPERABLE status.

With the above requirements not met, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

- a.6 With an inoperable damper in the normal outside air intake, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the normal outside air intake isolation dampers in the closed position and place the system in recirculation mode** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.7 With an inoperable damper in the emergency outside air intake, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the emergency outside air intake isolation dampers in the open position** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the

following 30 hours.

- a.8 With an isolation damper inoperable in the kitchen area exhaust duct, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or isolate the flow path** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.9 With an isolation damper inoperable in the toilet area exhaust duct, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or isolate the flow path** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

**If action is taken such that indefinite operation is permitted and the system is placed in recirculation mode, then movement of irradiated fuel may resume.

MODES 5 and 6:

With the Control Room Emergency Ventilation System inoperable, suspend all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes. This ACTION shall apply to both units simultaneously.

SURVEILLANCE REQUIREMENTS

4.7.5 The Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F;
- b. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes***;
- c. At least once per 18 months or (1) after 720 hours of system operation, or (2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (3) following exposure of the filters to effluents from painting, fire, or chemical release in any ventilation zone communicating with the system that may have an adverse effect on the functional capability of the system, or (4) after complete or partial replacement of a filter bank by:
 - 1) Verifying that the air cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of greater than or equal to 99% DOP and halogenated hydrocarbon removal at a system flow rate of 1000 cfm \pm 10%***.
 - 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, and analyzed per ASTM D3803 - 1989 at 30°C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 2.5% or the charcoal be replaced with charcoal that meets or exceeds the stated performance requirement***, and
 - 3) Verifying by a visual inspection the absence of foreign materials and gasket deterioration***.
- d. At least once per 12 months by verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 1000 cfm \pm 10%***;

- e. At least once per 18 months by verifying that on a Containment Phase "A" Isolation test signal the system automatically switches into the recirculation mode of operation,
- f. At least once per 18 months by verifying operability of the kitchen and toilet area exhaust dampers.

***As the mitigation actions of TS 3.7.5 Action a.5 may include the use of the compensatory filtration unit, the unit shall meet the surveillance requirements of TS 4.7.5.b, by manual initiation from outside the control room and TS 4.7.5.c and d.

Proposed

LIMITING CONDITION FOR OPERATION

3.7.5 The Control Room Emergency Ventilation System shall be OPERABLE* with

- a. Three air handling units,
- b. Two of three condensing units,
- c. Two control room recirculation fans,
- d. Two recirculation dampers,
- e. One filter train,
- f. Two isolation dampers in the normal outside air intake duct,
- g. Two isolation dampers in the emergency outside air intake duct,
- h. Two isolation dampers in the kitchen area exhaust duct, and
- i. Two isolation dampers in the toilet area exhaust duct.

*The Control Room Envelope (CRE) boundary may be opened intermittently under administrative control.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3, and 4:

- a.1 With one air handling unit inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable air handling unit to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.2 With two condensing units inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore at least one of the inoperable condensing units to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.3 With one recirculation fan inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable fan to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.4 With one recirculation damper inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the recirculation dampers in the open position and place the system in recirculation mode** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

- a.5 With two recirculation dampers **inoperable**, immediately suspend all movement of irradiated fuel and, immediately, initiate action to implement mitigating actions, and, within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits and, within 7 days, restore the filter train to OPERABLE status.

With the above requirements not met, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

- a.6 **With the filter train inoperable or two recirculation fans inoperable for reasons other than an inoperable CRE boundary, immediately suspend all movement of irradiated fuel and, immediately, initiate actions to place the compensatory filtration unit in service, and, within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits, and, within 7 days, restore the filter train to OPERABLE status.**

With the above requirements not met, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

- a.7 With an inoperable damper in the normal outside air intake, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the normal outside air intake isolation dampers in the closed position and place the system in recirculation mode** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.8 With an inoperable damper in the emergency outside air intake, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the emergency outside air intake isolation dampers in the open position** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.9 With an isolation damper inoperable in the kitchen area exhaust duct, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or isolate the flow path** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.10 With an isolation damper inoperable in the toilet area exhaust duct, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or isolate the flow path** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

**If action is taken such that indefinite operation is permitted and the system is placed in recirculation mode, then movement of irradiated fuel may resume.

- b. With the Control Room Emergency Ventilation System inoperable due to an inoperable CRE boundary, immediately suspend all movement of irradiated fuel in the spent fuel pool, **and, immediately, initiate action to implement mitigating actions, and within 24 hours, verify**

mitigating actions ensure CRE occupant radiological exposures will not exceed limits, and CRE occupants are protected from chemical and smoke hazards, and restore CRE boundary to OPERABLE status within 90 days, or:

1. With the requirements not met be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
2. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

- c. With the Control Room Emergency Ventilation System inoperable, **immediately** suspend all operations involving CORE ALTERATIONS, movement of irradiated fuel in the spent fuel pool, or positive reactivity changes. This ACTION shall apply to both units simultaneously.

SURVEILLANCE REQUIREMENTS

4.7.5 The Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F;
- b. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes***;
- c. At least once per 18 months or (1) after 720 hours of system operation, or (2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (3) following exposure of the filters to effluents from painting, fire, or chemical release in any ventilation zone communicating with the system that may have an adverse effect on the functional capability of the system, or (4) after complete or partial replacement of a filter bank by:
 - 1) Verifying that the air cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of greater than or equal to 99% DOP and halogenated hydrocarbon removal at a system flow rate of 1000 cfm $\pm 10\%$ ***.
 - 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, and analyzed per ASTM D3803 - 1989 at 30°C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 2.5% or the charcoal be replaced with charcoal that meets or exceeds the stated performance requirement***, and
 - 3) Verifying by a visual inspection the absence of foreign materials and gasket deterioration***.
- d. At least once per 12 months by verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 1000 cfm $\pm 10\%$ ***;
- e. At least once per 18 months by verifying that on a Containment Phase "A" Isolation test signal the system automatically switches into the recirculation mode of operation,
- f. At least once per 18 months by verifying operability of the kitchen and toilet area exhaust dampers, and
- g. By performing required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.

***As the mitigation actions of TS 3.7.5 Action a.5 may include the use of the compensatory filtration unit, the unit shall meet the surveillance requirements of TS 4.7.5.b, by manual initiation from outside the control room and TS 4.7.5.c and d.

Justification

Clarification of Action 5.a is provided to address NRC concerns regarding specific actions to be taken for loss of the operable filter train for reasons other than an inoperable CRE boundary.

References

1. M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2010-004), "License Amendment Request (LAR 194) – Control Room Habitability TSTF-448, (TAC NOS. ME0004 AND ME0005)," Accession No. ML102010386, July 16, 2010.
2. Email from J. Paige (NRC) to Bob Tomonto (FPL), "Turkey Point Units 3 and 4: Requests for Additional Information," Accession No. ML11167A291 June 16, 2011.
3. M. Kiley (FPL) to U.S. Nuclear Regulatory Commission (L-2011-264), "License Amendment Request (LAR 194) – Control Room Habitability TSTF-448, Requests for Additional Information, (TAC NOS. ME0004 AND ME0005)," July 18, 2011.
4. W. Jefferson (FPL) to U.S. Nuclear Regulatory Commission (L-2009-133), "License Amendment Request 196: Alternative Source Term and Conforming Amendment," Accession No. ML092050277, June 25, 2009.
5. J. Paige (NRC) to M. Nazar (FPL), "Turkey Point Units 3 and 4, Issuance of Amendments Regarding Alternative Source Term (TAC Nos. ME1624 and ME1625)," Accession No. ML110800666, June 23, 2011.

Figure 1 TS 3/4.7.5

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.5 The Control Room Emergency Ventilation System shall be OPERABLE⁺ with:

- a. Three air handling units,
- b. Two of three condensing units,
- c. Two control room recirculation fans,
- d. Two recirculation dampers,
- e. One filter train,
- f. Two isolation dampers in the normal outside air intake duct,
- g. Two isolation dampers in the emergency outside air intake duct,
- h. Two isolation dampers in the kitchen area exhaust duct, and
- i. Two isolation dampers in the toilet area exhaust duct.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3 and 4:

- a.1 With one air handling unit inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable air handling unit to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.2 With two condensing units inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore at least one of the inoperable condensing units to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.3 With one recirculation fan inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable fan to OPERABLE status or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

*The Control Room Envelope (CRE) boundary may be opened intermittently under administrative control.

Figure 1 TS 3/4.7.5 (continued)

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION (continued)

- a.4 With one recirculation damper inoperable, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the recirculation dampers in the open position and place the system in recirculation mode** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

- a.5 With the filter train inoperable, e.g., an inoperable filter, and/or two inoperable recirculation fans, and/or two inoperable recirculation dampers, immediately suspend all movement of irradiated fuel, and, immediately, initiate action to implement mitigating actions, and, within 24 hours, verify mitigating actions ensure control room occupant radiological exposures will not exceed limits and, within 7 days, restore the filter train to OPERABLE status.

With the above requirements not met, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

Insert 2 →

- a.6 7 With an inoperable damper in the normal outside air intake, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the normal outside air intake isolation dampers in the closed position and place the system in recirculation mode** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.7 8 With an inoperable damper in the emergency outside air intake, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or place and maintain at least one of the emergency outside air intake isolation dampers in the open position** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.8 9 With an isolation damper inoperable in the kitchen area exhaust duct, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or isolate the flow path** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.
- a.9 10 With an isolation damper inoperable in the toilet area exhaust duct, immediately suspend all movement of irradiated fuel and, within 7 days, restore the inoperable damper to OPERABLE status or isolate the flow path** or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

**If action is taken such that indefinite operation is permitted and the system is placed in recirculation mode, then movement of irradiated fuel may resume.

Figure 1 TS 3/4.7.5 (continued)

PLANT SYSTEMS

3/4.7.5 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

LIMITING CONDITION FOR OPERATION (continued)

Insert 1 →

MODES 5 and 6:

irradiated

immediately

- ☐ C. With the Control Room Emergency Ventilation System inoperable, suspend all operations involving CORE ALTERATIONS, movement of fuel in the spent fuel pool, or positive reactivity changes. This ACTION shall apply to both units simultaneously.

SURVEILLANCE REQUIREMENTS

4.7.5 The Control Room Emergency Ventilation System shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 120°F;
- b. At least once per 31 days by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes***;
- c. At least once per 18 months or (1) after 720 hours of system operation, or (2) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (3) following exposure of the filters to effluents from painting, fire, or chemical release in any ventilation zone communicating with the system that may have an adverse effect on the functional capability of the system, or (4) after complete or partial replacement of a filter bank by:

Figure 1 TS 3/4.7.5 (continued)

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 1) Verifying that the air cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of greater than or equal to 99% DOP and halogenated hydrocarbon removal at a system flow rate of 1000 cfm $\pm 10\%$ ***.
 - 2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, and analyzed per ASTM D3803 - 1989 at 30°C and 95% relative humidity, meets the methyl iodide penetration criteria of less than 2.5% or the charcoal be replaced with charcoal that meets or exceeds the stated performance requirement***, and
 - 3) Verifying by a visual inspection the absence of foreign materials and gasket deterioration***.
- d. At least once per 12 months by verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 1000 cfm $\pm 10\%$ ***;
 - e. At least once per 18 months by verifying that on a Containment Phase "A" Isolation test signal the system automatically switches into the recirculation mode of operation,
 - f. At least once per 18 months by verifying operability of the kitchen and toilet area exhaust dampers, and
 - g. By performing required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program.

***As the mitigation actions of TS 3.7.5 Action a.5 may include the use of the compensatory filtration unit, the unit shall meet the surveillance requirements of TS 4.7.5.b, by manual initiation from outside the control room and TS 4.7.5.c and d.

Figure 1 TS 3/4.7.5 (continued)

INSERT 1

- b. With the Control Room Emergency Ventilation System inoperable due to an inoperable CRE boundary, immediately suspend all movement of irradiated fuel in the spent fuel pool, **and immediately**, initiate action to implement mitigating actions, and within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits, and CRE occupants are protected from chemical and smoke hazards, and restore CRE boundary to OPERABLE status within 90 days, or:
1. With the requirements not met be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
 2. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.

INSERT 2

- a.6 With the filter train inoperable or two recirculation fans inoperable for reasons other than an inoperable CRE boundary, immediately suspend all movement of irradiated fuel and, immediately, initiate actions to place the compensatory filtration unit in service, and, within 24 hours, verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits and, within 7 days, restore the filter train to OPERABLE status.

With the above requirements not met, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. If this ACTION applies to both units simultaneously, be in HOT STANDBY within 12 hours and in COLD SHUTDOWN within the following 30 hours.