NEXTera ENERGY POINT BEACH

April 20, 2010

NRC 2010-0051
10 CFR 50.90

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

Point Beach Nuclear Plant, Units 1 and 2
Dockets 50-266 and 50-301
Renewed License Nos. DPR-24 and DPR-27

Supplement to License Amendment Request 241
Alternative Source Term
Proposed Technical Specifications for Control Room Emergency Filtration System (CREFS)

References:
(1) FPL Energy Point Beach, LLC letter to NRC, dated December 8, 2008, Submittal of License Amendment Request 241, Alternative Source Term (ML083450683)
(2) NextEra Energy Point Beach, LLC letter to NRC, dated March 30, 2010, License Amendment Request 241, Alternative Source Term, Regulatory Commitment Change (ML100900072)
(3) NextEra Energy Point Beach, LLC letter to NRC, dated August 20, 2009, License Amendment Request 241, Alternative Source Term, Response to Request for Additional Information (ML092330180)

NextEra Energy Point Beach, LLC (NextEra) submitted License Amendment Request (LAR) 241 (Reference 1) to the NRC pursuant to 10 CFR 50.90. The license amendment would revise the current licensing basis to implement the alternative source term (AST) through reanalysis of the radiological consequences of the Point Beach Nuclear Plant (PBNP) Final Safety Analysis Report (FSAR) Chapter 14 accidents.

NextEra proposes to add License Conditions, revise Technical Specification (TS) 3.7.9, Control Room Emergency Filtration System (CREFS) and add new TS 5.5.18, Control Room Envelope Habitability Program, to address AST-related commitments. Per discussion with the NRC on March 11, 2010, TS 3.7.9 is also being modified to address Technical Specification Task Force (TSTF) Traveler TSTF-448, Revision 3, Control Room Habitability, and joint NRC and industry guidance regarding control room habitability.

Enclosure 1 provides the description and evaluation of the proposed License Condition and TS changes. Enclosure 2 provides markups of the proposed License Conditions and TS changes. Enclosure 3 provides markups of the proposed TS Bases. The TS Bases are being provided for information only. NextEra is not requesting approval of the Bases.

In support of the proposed TS changes, NextEra has performed a control room (CR) dose calculation for limiting AST radiological accidents, without credit for CREFS and including the effects of use of mitigating actions. Enclosure 4 provides the results of this calculation.

Summary of Regulatory Commitments

This letter fulfills the following Regulatory Commitments made in References (2) and (3):

- By April 21, 2010, NextEra will submit a proposed revision of the Technical Specification (TS) for the control room emergency filtration system (CREFS), and will provide the results of control room (CR) dose calculations that are based on better estimate assumptions, including the effects of the use of mitigating actions with CREFS inoperable.

- NextEra Energy Point Beach, LLC (NextEra) will submit a license amendment request addressing control room habitability surveillance methodology in accordance with TSTF-448 within 60 days of approval of License Amendment Request 241.

PBNP is proposing TS 3.7.9 Action Conditions (TSACs) that contain the use of mitigating actions. Accordingly, the following new Regulatory Commitment is proposed:

- Written procedures will be available describing mitigating actions to be taken in the event of an intentional or unintentional entry into TSACs 3.7.9.C or 3.7.9.D. These procedures will be implemented following NRC approval of LAR 241, and no later than the completion of the Unit 2 (2011) refueling outage.

- A description of mitigating actions to be taken in the event of an intentional or unintentional entry into TSACs 3.7.9.C or 3.7.9.D will be incorporated into the PBNP FSAR in accordance with 10 CFR 50.71(e).

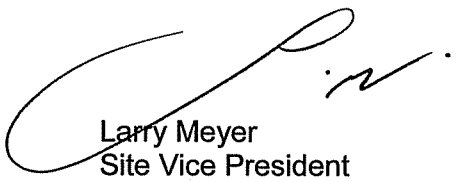
The PBNP Plant Operations Review Committee has reviewed the proposed changes.

In accordance with 10 CFR 50.91, a copy of this letter is being provided to the designated Wisconsin Official.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on April 20, 2010.

Very truly yours,

NextEra Energy Point Beach, LLC



Larry Meyer
Site Vice President

Enclosures

cc: Administrator, Region III, USNRC
Project Manager, Point Beach Nuclear Plant, USNRC
Resident Inspector, Point Beach Nuclear Plant, USNRC
PSCW

ENCLOSURE 1

NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

SUPPLEMENT TO LICENSE AMENDMENT REQUEST 241
ALTERNATIVE SOURCE TERM
PROPOSED TECHNICAL SPECIFICATIONS FOR CONTROL ROOM EMERGENCY FILTRATION SYSTEM (CREFS)

21 pages follow

1.0 SUMMARY DESCRIPTION

This license amendment request supplement proposes to revise Renewed Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant (PBNP) Units 1 and 2, respectively. This supplement is provided in response to the following Regulatory Commitments made in References 7.1 and 7.2:

- By April 21, 2010, NextEra will submit a proposed revision of the Technical Specification (TS) for the control room emergency filtration system (CREFS), and will provide the results of control room (CR) dose calculations that are based on better estimate assumptions, including the effects of the use of mitigating actions with CREFS inoperable.

- NextEra Energy Point Beach, LLC (NextEra) will submit a license amendment request addressing control room habitability surveillance methodology in accordance with TSTF-448 within 60 days of approval of License Amendment Request 241.

This supplement would modify TS requirements related to AST and control room habitability in the following Operating License and TS sections:

- Operating Licenses DPR-24 and DPR-27, Appendix C, Additional Conditions

- TS 3.7.9, Control Room Emergency Filtration System (CREFS)

- New TS 5.5.18, Control Room Envelope Habitability Program

2.0 DETAILED DESCRIPTION

This supplement will add License Conditions associated with the performance of testing and a periodic assessment in support of the Control Room Envelope Habitability Program, revise existing TS 3.7.9 for CREFS and add a new TS 5.5.18, Control Room Envelope Habitability Program. TS 3.7.9 will continue to require the CREFS to be operable in MODES 1, 2, 3, and 4, and during movement of irradiated fuel assemblies.

These TS changes are being proposed as a result of AST assumptions crediting the CREFS (Reference 7.3) and address mitigating actions that will be implemented in the event that the CREFS becomes inoperable.

The changes are consistent with Nuclear Regulatory Commission (NRC) approved Technical Specification Task Force (TSTF) TSTF-448, Revision 3 (Reference 7.4), but contain deviations discussed in Section 3.0. Joint NRC and industry guidance regarding control room habitability has been incorporated, where applicable.

2.1 Proposed Changes

1. NextEra proposes the following License Condition to support the initial performance of new surveillance and assessment requirements identified in TSTF-448, Revision 3:

   Upon implementation of Amendment Nos. XXX/XXX adopting TSTF-448, Revision 3, and Alternative Source Term, the determination of control room envelope (CRE) unfiltered air inleakage as required by SR 3.7.9.6, in accordance with TS 5.5.18.c.(i), the assessment of CRE habitability as required by Specification 5.5.18.c.(ii), and the measurement of CRE pressure as required by Specification 5.5.18.d, shall be considered met. Following implementation:

   a. The first performance of SR 3.7.9.6, in accordance with Specification 5.5.18.c.(i), shall be within 18 months of implementation of this amendment.

   b. The first performance of the periodic assessment of CRE habitability, Specification 5.5.18.c.(ii), shall be within three (3) years of completion of the testing prescribed in item a. above.

   c. The first performance of the periodic measurement of CRE pressure, Specification 5.5.18.d, shall be within 18 months of implementation of this amendment.

   Basis for the change: The timeframes for performance of testing and assessment activities are as prescribed in TSTF-448, Revision 3, TS 5.5.18, Items c, d, and f, and Regulatory Guide 1.197, Revision 0, Sections C.1 and C.2 (ML031490664). The timeframe of within 18 months of implementation of the new TS to complete testing, as cited in Items a and c above, is in accordance with the corrected pages from the TSTF-448, Revision 3 model application (ML070330657).

   The proposed License Conditions are contained in Enclosure 2.

2. LCO 3.7.9

   Replace:
   "CREFS shall be operable."

   With:
   "CREFS shall be operable with:

   a. Two control room recirculation fans,

   b. Two control room emergency fans,

   c. One filter train,

   d. Two control room emergency fan control dampers, and

   e. Two isolation dampers in the kitchen area exhaust duct."

Basis for the change: The PBNP CREFS is a single train system and does not conform to the assumed two-train CREFS design with respect to LCO 3.7.10, which states, "Two CREFS trains shall be OPERABLE." To further define the operability requirements for the PBNP configuration, specific active components are identified. This approach is similar to that taken for another plant which has been approved for AST and TSTF-448, Revision 3.

3. Add the following Note for LCO 3.7.9:

"The control room envelope (CRE) boundary may be opened intermittently under administrative control."

Basis for the change: TSTF-448, Revision 3, LCO 3.7.10 contains this Note. As stated in the Bases, this note "only applies to openings in the CRE boundary that can be rapidly restored to the design condition, such as doors, hatches, floor plugs, and access panels. For entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls should be proceduralized and consist of stationing a dedicated individual at the opening who is in continuous communication with the operators in the CRE. This individual will have a method to rapidly close the opening and to restore the CRE boundary to a condition equivalent to the design condition when a need for CRE isolation is indicated."

4. Add the following Note for Condition A.

"Separate Condition entry is allowed for each component."

Basis for the change: With multiple condition entries, the note clarifies that one or more condition(s) can be entered simultaneously.

5. Condition A.

Replace:
"CREFS inoperable."

With:
"One control room recirculation fan inoperable.

OR

One control room emergency fan inoperable.

OR

One control room emergency fan control damper inoperable."

Basis for the change: The PBNP CREFS is a single train system and does not conform to the assumed two-train CREFS design with respect to LCO 3.7.10 Condition A which states, "One CREFS train inoperable for reasons other than Condition B." To further define the operability requirements for the PBNP configuration, specific active components are identified. This approach is similar to that taken in the TS for another plant, which has been approved for AST and TSTF-448, Revision 3. The aspect of TSTF-448, Revision 3, LCO 3.7.10 Condition A which states, "for reasons other than Condition B" that would be "for reasons other than an inoperable CRE boundary" and is addressed in new Condition C described below.

6. Required Action A.1

Replace:
"Restore CREFS to OPERABLE status."

With:
"Restore inoperable fan or damper to OPERABLE status."

Basis for the change: The PBNP CREFS is a single train system and does not conform to the assumed two-train CREFS design with respect to LCO 3.7.10 Required Action A.1 which states, "Restore CREFS train to OPERABLE status." The proposed Required Action A.1 instead addresses restoration of specific active components to OPERABLE status. This approach is similar to that taken in the TS for another plant, which has been approved for AST and TSTF-448, Revision 3. The Required Action A.1 Completion Time of "7 days" is the same for both TSTF-448, Revision 3, and the existing TS.

7. Existing Condition B.

Replace:
"B. Required Action and associated Completion Time not met."

With:
"E. Required Action and associated Completion Time of Condition A, B, C, or D not met in MODE 1, 2, 3, or 4 or not met during movement of irradiated fuel assemblies."

Basis for the change: The previously named TS 3.7.9 Condition B was renamed as Condition E to account for proposed new PBNP Conditions B, C, and D. In addition, TS 3.7.9 renamed Condition E was revised to read, "Required Action and associated Completion Time of Condition A, B, C, or D not met in MODE 1, 2, 3, or 4, or not met during movement of irradiated fuel assemblies." to recognize the proposed new PBNP Conditions B, C and D. These changes were made to address TSTF-448, Revision 3, TS 3.7.10 Condition C which states, "Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4." and Condition D which states, "Required Action and associated Completion Time not met during movement of irradiated fuel assemblies."

8. Existing Required Action B.1

Replace:
"B.1 Suspend movement of irradiated fuel assemblies. AND"

With:
"E.1 Suspend movement of irradiated fuel assemblies. AND"

Basis for the change: As discussed in Item 6 above, TSTF-448, Revision 3, TS 3.7.10 Condition D is not being added to TS 3.7.9. The language from TSTF-448, Revision 3, LCO 3.7.10, Required Action D.2 which states, "Suspend movement of irradiated fuel assemblies." is being retained in proposed TS 3.7.9 and Required Action E.1. The proposed Required Action D.2, Completion Time of "Immediately" for TSTF-448, Revision 3, is the same for the proposed TS 3.7.9, Required Action E.1 Completion Time.

9. Existing Required Action B.2 states

Replace:
"B.2 Be in MODE 3. AND"

With:
"E.2 Be in MODE 3. AND"

Basis for the change: TSTF-448, Revision 3, TS 3.7.10 Required Action C.1 which states, "Be in MODE 3." is the same as proposed TS 3.7.9, Required Action E.2.

10. Existing Required Action B.3

Replace:
"B.3 Be in MODE 5."

With:
"E.3 Be in MODE 5."

Basis for the change: TSTF-448, Revision 3, TS 3.7.10 Required Action C.2 which states, "Be in MODE 5." is the same as proposed TS 3.7.9, Required Action E.3.

11. New Condition B.

"One isolation damper in the kitchen area exhaust duct inoperable."

Basis for the change: TSTF-448, Revision 3, does not contain a similar Condition. The PBNP CREFS is a single train system. To further define the operability requirements for the PBNP configuration, specific active components are identified. There are two redundant isolation dampers in series in the single kitchen area exhaust duct which are part of the CRE boundary. With one damper inoperable, the CRE boundary can be isolated with the closure of the other damper.

12. New Required Action B.1

"Restore isolation damper to OPERABLE status. OR"

Basis for the change: TSTF-448, Revision 3, does not contain a similar Required Action. The PBNP CREFS is a single train system. To further define the operability requirements for the PBNP configuration, specific active components are identified. There are two redundant isolation dampers in series in the single kitchen area exhaust duct, which are part of the CRE boundary. With one damper inoperable, the CRE boundary can be isolated with the closure of the other damper.

13. New Completion Time for Required Action B.1

"7 days"

Basis for the change: TSTF-448, Revision 3, contains a Completion Time of 7 days for Condition A to restore an inoperable CREFS train to OPERABLE status. The PBNP CREFS is a single train system, however the redundant isolation dampers allow isolation of the CRE boundary in the event of one damper being inoperable. Therefore, 7 days is a reasonable time to repair one of the two redundant isolation dampers.

14. New Required Action B.2

"Place and maintain the other isolation damper in the same duct in the closed position."

Basis for the change: TSTF-448, Revision 3, does not contain a similar Required Action. The PBNP CREFS is a single train system. To further define the operability requirements for the PBNP configuration, specific active components are identified. There are two redundant isolation dampers in series in the single kitchen area exhaust duct, which are part of the CRE boundary. With one damper inoperable, the CRE boundary can be isolated with the closure of the other damper.

15. New Completion Time for Required Action B.2

"7 days"

Basis for the change: TSTF-448, Revision 3, contains a Completion Time of 7 days for Condition A to restore an inoperable CREFS train to OPERABLE status. The PBNP CREFS is a single train system, however the redundant isolation dampers allow isolation of the CRE boundary in the event of one damper being inoperable. Therefore, 7 days is a reasonable time to repair one of the two redundant isolation dampers.

16. Add the following Note for Condition C.

"Separate Condition entry is allowed for each component."

Basis for the change: With multiple condition entries, the note clarifies that one or more condition(s) can be entered simultaneously.

17. New Condition C.

"Two control room recirculation fans inoperable.

OR

Two control room emergency fans inoperable.

OR

Two control room emergency fan control dampers inoperable.

OR

Filter train inoperable for reasons other than Condition D."

Basis for the change: TSTF-448, Revision 3, does not contain a similar Condition. The PBNP CREFS is a single train system. To further define the operability requirements for the PBNP configuration, specific active components are identified. The intent of this Condition is to allow 7 days to restore this equipment to OPERABLE status, as long as mitigating actions are successfully instituted and immediate suspension of movement of irradiated fuel is accomplished. This allows reasonable time for maintenance on a single train system, but requires immediate mitigating actions which protect CRE occupants from design basis accident (DBA) radiological hazards. TSTF-448, Revision 3, contains a Completion Time of 90 days for Condition B.3 to restore an inoperable CRE boundary to OPERABLE status if mitigating actions are utilized.

18. New Required Action C.1

"Initiate actions to implement mitigating actions. AND"

Basis for the change: This new required action is similar to TSTF-448, Revision 3, Required Action B.1. The intent of the new Required Action C.1 is to cause immediate initiation of actions to implement mitigating actions if the entire CREFS is inoperable as specified in proposed TS 3.7.9 Condition C.

19. New Completion Time for Required Action C.1

"Immediately"

Basis for the change: This completion time is the same as TSTF-448, Revision 3, Required Action B.1 Completion Time.

20. New Required Action C.2

Add new note which states:
"Not required following completion of Required Action C.3"

Add required action which states:
"Suspend movement of irradiated fuel assemblies. AND"

Basis for the change: TSTF-448, Revision 3, does not contain a similar Required Action. The intent of the new Required Action C.2 is to cause immediate suspension of movement of irradiated fuel assemblies until completion of verification that the mitigating actions ensure that CRE occupant radiological exposures will not exceed limits. This places the units in a condition that minimizes the accident risk.

21. New Completion Time for Required Action C.2

"Immediately"

Basis for the change: TSTF-448, Revision 3, does not contain a similar Required Action. The intent of the new Required Action C.2 Completion Time is to cause immediate suspension of movement of irradiated fuel assemblies until verification is completed that the mitigating actions ensure that CRE occupant radiological exposures will not exceed limits. This places the units in a condition that minimizes the accident risk.

22. New Required Action C.3

"Verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits. AND"

Basis for the change: Required Action C.3 is similar to TSTF-448, Revision 3, Required Action B.2.

23. New Completion Time for Required Action C.3

"24 hours"

Basis for the change: The Required Action B.2 Completion Time of "24 hours" for TSTF-448, Revision 3, is the same as proposed TS 3.7.9, Required Action C.3 Completion Time.

24. New Required Action C.4

"Restore inoperable fans, dampers, or filter train to OPERABLE status."

Basis for the change: The PBNP CREFS is a single train system. The Required Action C.4 addresses restoration of specific active components to OPERABLE status.

25. New Completion Time for Required Action C.4

"7 days"

Basis for the change: The PBNP CREFS is a single train system and due to the system configuration, maintenance on an active component typically requires removing the entire system from operation for industrial safety purposes. The intent of the PBNP Required Action C.4 Completion Time of 7 days is to allow time for maintenance to be performed on specific active components without requiring a dual unit shutdown. The verification of mitigating actions and suspension of movement of irradiated fuel assemblies as specified in proposed TS 3.7.9 Required Actions C.1, C.2 and C.3 provide an additional level of protection during this maintenance interval.

26. Add the following Note for Condition D.

"Separate Condition entry is allowed for each component."

Basis for the change: With multiple condition entries, the note clarifies that one or more condition(s) can be entered simultaneously.

27. New Condition D.

"Filter train inoperable due to an inoperable CRE boundary.

OR

Two isolation dampers in the kitchen area exhaust duct inoperable."

Basis for the change: NextEra proposes to establish new action requirements for an inoperable CRE boundary in a fashion similar to TSTF-448, Revision 3, TS 3.7.10 Condition B which states, "One or more CREFS trains inoperable due to inoperable CRE boundary in MODE 1, 2, 3, or 4." Since the PBNP CREFS is a single train system, the proposed TS 3.7.9 Condition D addresses the PBNP system configuration and deviates from TSTF-448, Revision 3, TS 3.7.10 Condition B. This approach is similar to that taken in the TS for another plant, which has been approved for AST and TSTF-448, Revision 3.

With both kitchen area exhaust isolation dampers inoperable, the result is an inoperable CRE boundary as a result of potential leakage through the kitchen area exhaust duct.

28. New Required Action D.1

"Initiate Actions to implement mitigating actions. AND"

Basis for the change: This new required action is similar to TSTF-448, Revision 3, Required Action B.1.

29. New Completion Time for Required Action D.1

"Immediately"

Basis for the change: This new required action completion time is similar to TSTF-448, Revision 3, Required Action B.1 Completion Time.

30. New Required Action D.2 added which states:

Add new note which states:
"Not required following completion of Required Action D.3"

Add new action which states:
"Suspend movement of irradiated fuel assemblies. AND"

Basis for the change: TSTF-448, Revision 3, does not contain a similar Required Action. The intent of proposed Required Action D.2 is to cause immediate suspension of movement of irradiated fuel assemblies until completion of verification that the mitigating actions ensure that CRE occupant radiological exposures will not exceed limits. This places the units in a condition that minimizes the accident risk.

31. New Completion Time for Required Action D.2

"Immediately"

Basis for the change: TSTF-448, Revision 3, does not contain a similar Required Action. The intent of proposed Required Action D.2 Completion Time is to cause immediate suspension of movement of irradiated fuel assemblies until verification is completed that the mitigating actions ensure that CRE occupant radiological exposures will not exceed limits. This places the units in a condition that minimizes the accident risk.

32. New Required Action D.3

"Verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits. AND"

Basis for the change: Proposed Required Action D.3 is similar to TSTF-448, Revision 3, TS 3.7.10 Required Action B.2.

33. New Completion Time for Required Action D.3

"24 hours"

Basis for the change: Proposed Required Action D.3 Completion Time is the same as TSTF-448, Revision 3, Required Action B.2 Completion Time.

34. New Required Action D.4

"Restore CRE boundary to OPERABLE status."

Basis for the change: Proposed Required Action D.4 is similar to TSTF-448, Revision 3, Required Action B.3.

35. New Completion Time for Required Action D.4

"90 days"

Basis for the change: Proposed Required Action D.4 Completion Time is the same as TSTF-448, Revision 3, Required Action B.2 Completion Time.

36. Surveillance Requirement (SR) 3.7.9.2 Frequency

Replace:
"In accordance with VFTP."

With:
"In accordance with the VFTP"

Basis for the change: This change is consistent with TSTF-448, Revision 3, SR 3.7.10.2 Frequency.

37. SR 3.7.9.3 Surveillance

Replace:
"Verify each CREFS emergency make-up fan actuates on an actual or simulated actuation signal."

With:
"Verify each CREFS emergency and recirculation fan actuates on an actual or simulated actuation signal."

Basis for the change: This change reflects the CREFS emergency Mode 5 configuration wherein the emergency and recirculation fans receive an input to start on a containment isolation or high control room radiation signal. This change is consistent with the intent of TSTF-448, Revision 3, SR 3.7.10.3 which states, "Verify each CREFS train actuates on an actual or simulated actuation signal."

38. SR 3.7.9.6 Surveillance

Replace:
"Verify each CREFS emergency make-up fan can maintain a positive pressure of $\geq$ 0.125 inches water gauge in the control room envelope relative to the adjacent turbine building during the emergency mode of operation at a makeup flow rate of 4950 cfm $\pm$ 10%."

With:
"Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program."

Basis for the change: NextEra Existing CRE pressurization language is altered in accordance with TSTF-448, Revision 3.

39. SR 3.7.9.6 Frequency states,

Replace:
"18 months."

With:
"In accordance with the Control Room Envelope Habitability Program"

Basis for the change: This change is consistent with TSTF-448, Revision 3, SR 3.7.10.4 Frequency.

40. New TS 5.5.18

"Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Filtration System (CREFS), CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem total effective dose equivalent (TEDE) for the duration of the accident. The program shall include the following elements:

a. The definition of the CRE and the CRE boundary.

b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.

c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

d. Measurement, at designated locations, of the CRE pressure relative to all external areas adjacent to the CRE boundary during the technical specification emergency mode of operation by the CREFS, operating at the flow rate required by the VFTP, at a Frequency of 18 months. The results shall be trended and used as part of the periodic assessment of the CRE boundary.

e. The quantitative limits on unfiltered air inleakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air inleakage measured by the testing described in Paragraph c. The unfiltered air inleakage limit for radiological challenges is the inleakage flow rate assumed in the licensing basis analyses of DBA consequences.

f. The provisions of SR 3.0.2 are applicable to the Frequencies for assessing CRE habitability, determining CRE unfiltered inleakage, and measuring CRE pressure and assessing the CRE boundary as required by Paragraphs c and d, respectively."

Basis for the change: NextEra proposes a new administrative controls program TS consistent with the model program TS contained in TSTF-448, Revision 3.

3.0 SUMMARY OF DEVIATIONS FROM TSTF-448, REVISION 3

NextEra is proposing variations/deviations from the TS changes described in TSTF-448, Revision 3, and the applicable parts of the NRC Staff's model safety evaluation dated January 17, 2007. These differences reflect adjustments, as needed, to account for plant-specific design or current licensing basis. The PBNP CREFS is a single train system. The proposed TS associated with this system are written to reflect a single train. Therefore, the NextEra proposed TS changes do not include the TSTF-448, Revision 3 changes for two trains being inoperable.

1. NextEra is proposing License Conditions to address the performance of testing and assessment activities as identified in TSTF-448, Revision 3, TS 5.5.18, Items c, d, and f, and Regulatory Guide 1.197, Revision 0, Sections C.1 and C.2. In the proposed PBNP License Condition, a timeframe of within 18 months of implementation of the new TS is being proposed to complete the testing cited in Items a. and c. of TSTF-448, Revision 3, TS 5.5.18. NextEra considers this timeframe is reasonable following completion of the new AST CREFS accident Mode 5 modifications.

2. TSTF-448, Revision 3, LCO 3.7.10, states, "Two CREFS trains shall be OPERABLE." This statement is applicable to a plant configuration which consists of two separate CREFS trains. Since the PBNP CREFS is a single train system, the proposed TS 3.7.9 instead identifies the active CREFS components that shall be OPERABLE. As discussed with the NRC staff at the NRC public meeting on March 25, 2010, this approach for a single train CREFS configuration will be considered in the staff's review.

3. TSTF-448, Revision 3, TS 3.7.10, Condition A, states, "One CREFS train inoperable for reasons other than Condition B." This statement is applicable to a plant configuration which consists of two separate CREFS trains, and introduces the concept that since a CREFS train can be inoperable for various reasons (i.e., due to an inoperable CRE boundary or due to other inoperable equipment), both conditions should be addressed separately. Since the PBNP CREFS is a single train system, the proposed TS 3.7.9, Condition A, identifies instead active inoperable CREFS components. A Note has been added to proposed TS 3.7.9, Condition A to clarify that one or more of the conditions may be entered simultaneously.

   In addition, proposed TS 3.7.9, Condition B, which identifies other active components and actions necessary in the event that one damper becomes inoperable. TSTF-448, Revision 3, does not contain a similar condition. As discussed with the NRC staff at the NRC public meeting on March 25, 2010, this approach for a single train CREFS configuration will be considered in the staff's review.

   The differentiation between CREFS being inoperable due to an inoperable CRE boundary and due to other reasons (i.e., component failure) is addressed in proposed TS 3.7.9, Conditions C and D.

4. TSTF-448, Revision 3, TS 3.7.10, Condition B, states, "One or more CREFS trains inoperable due to inoperable CRE boundary in MODE 1, 2, 3, or 4." This statement is applicable to a plant configuration which consists of two separate CREFS trains, and follows up on the Condition A concept that since a CREFS train can be inoperable for various reasons (i.e., due to an inoperable CRE boundary or due to other inoperable equipment), both conditions should be addressed separately. Since the PBNP CREFS is a single train system, the proposed TS 3.7.9, Condition C, continues to address inoperable

active CREFS equipment. In addition, proposed TS 3.7.9, Conditions C and D, differentiate between a CREFS filter train being inoperable due to an inoperable CRE boundary and for other reasons. This approach is similar to the differentiation being proposed in TSTF-448, Revision 3, Conditions A and B. Proposed TS 3.7.9, Condition D, addresses two kitchen area exhaust duct dampers inoperable, which results in an inoperable CRE boundary due to potential leakage through the kitchen area exhaust duct. A Note has been added to proposed TS 3.7.9, Conditions C and D, to clarify that one or more of the conditions may be entered simultaneously.

TSTF-448, Revision 3, TS 3.7.10, Required Actions B.1 and B.2, also introduce the use of mitigating actions to ensure that CRE occupant exposures to radiological, chemical, and smoke hazards will not exceed limits. Proposed TS 3.7.9, Conditions C and D, both address the use of mitigating actions similar to TSTF-448, Revision 3, Condition B. However, proposed TS 3.7.9, Conditions C and D, each contain an additional required actions (C.2 and D.2) to suspend movement of irradiated fuel assemblies until the mitigating actions (initiated in C.1 and D.1) have been verified (C.3 and D.3). This required action is not contained in TSTF-448, Revision 3, Condition B. NextEra has proposed these required actions to place the units in a condition that minimizes the accident risk. As discussed with the NRC staff at the NRC public meeting on March 25, 2010 (and previous meetings), this approach for a single train CREFS configuration will be considered in the staff's review.

TSTF-448, Revision 3, TS 3.7.10, Condition B, Required Action B.2, addresses radiological, chemical, and smoke hazards. Proposed TS 3.7.9, Required Action C.3 and Required Action D.3, both only address radiological hazards, since the current license basis for PBNP does not credit CREFS for CRE habitability following hazardous chemical release or a smoke challenge. The control room configuration at PBNP was found to be habitable under toxic gas conditions based on prior NRC review (Reference 7.5). A fixed smoke ejection system may be manually aligned to eject smoke from the control room, and additional portable smoke ejection equipment is also available.

TSTF-448, Revision 3, TS 3.7.10, Condition B, Required Action B.3 Completion Time, is specified as 90 days. Proposed TS 3.7.9, Required Action C.4 Completion Time, specifies 7 days. The intent of proposed Required Action C.4 is to allow 7 days to restore equipment to OPERABLE status, as long as mitigating actions are successfully instituted and immediate suspension of movement of irradiated fuel is accomplished. The PBNP CREFS is a single train system and due to the system configuration, maintenance on an active component typically requires removing the entire system from operation for industrial safety purposes. The 7 days allows time for maintenance to be performed on specific active components without requiring a dual unit shutdown. The verification of mitigating actions and suspension of movement of irradiated fuel assemblies as specified in proposed TS 3.7.9 Required Actions C.1, C.2, and C.3 provide additional levels of protection during this maintenance interval. As discussed with the NRC staff at the NRC public meeting on March 25, 2010, this approach allows reasonable time for maintenance on a single train system, but requires immediate mitigating actions which protect CRE occupants from design basis accident (DBA) radiological hazards.

5. TSTF-448, Revision 3, TS 3.7.10, Condition C, states, "Required Action and associated Completion Time of Condition A or B not met in MODE 1, 2, 3, or 4." Proposed TS 3.7.9, Condition E, addresses the additional Conditions C and D that have been proposed and includes provisions for the suspension of movement of irradiated fuel assemblies. TSTF-448, Revision 3, Conditions D and E, identify the provisions for the suspension of movement of irradiated fuel assemblies, but are based on the presumption that the plant configuration is two CREFS trains. The variations related to two CREFS trains are encompassed by TSTF-448, Revision 3, Conditions D and E, but are not applicable to the PBNP CREFS single train system. Due to these variations, NextEra proposes instead to include the provisions for the suspension of movement of irradiated fuel assemblies in the proposed TS 3.7.9, Condition E.

6. TSTF-448, Revision 3, TS 3.7.10, Condition F, states, "Two CREFS trains inoperable in MODE 1, 2, 3, and 4 for reasons other than Condition B." Since the PBNP CREFS is a single train system, this condition is not contained in the proposed TS 3.7.9 revision.

7. TSTF-448, Revision 3, SR 3.7.10.3, states, "Verify each CREFS train actuates on an actual or simulated actuation signal." Since the PBNP CREFS is a single train system, the proposed SR 3.7.9.3 language is consistent with the PBNP CREFS configuration.

8. TSTF-448, Revision 3, TS 5.5.18, includes a description of the Control Room Envelope Habitability Program. The proposed TS 5.5.18, CRE Habitability Program, will contain the required elements identified in TSTF-448, Revision 3. Some language contained in TSTF-448, Revision 3, TS 5.5.18, is modified to account for the plant-specific design or current licensing basis, as follows:

   a. TSTF-448, Revision 3, TS 5.5.18, first paragraph, first sentence states, "A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Filtration System (CREFS), CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event, hazardous chemical release, or a smoke challenge." The words, "hazardous chemical release, or a smoke challenge" are deleted. The current license basis for PBNP does not credit CREFS for CRE habitability following a hazardous chemical release or a smoke challenge. The control room configuration at PBNP was found to be habitable under toxic gas conditions based on prior NRC review (Reference 7.5). A fixed smoke ejection system may be manually aligned to eject smoke from the control room, and additional portable smoke ejection equipment is also available.

   b. TSTF-448, Revision 3, TS 5.5.18, Item d, first sentence states, "Measurement, at designated locations, of the CRE pressure relative to all external areas adjacent to the CRE boundary during the pressurization mode of operation by one train of the CREFS, operating at the flow rate required by the VFTP, at a Frequency of [18] months on a STAGGERED TEST BASIS." Since the PBNP CREFS is a single train system, the wording which states, "during the pressurization mode of operation by one train of the CREFS" is proposed to be modified accordingly to say, "during the Technical Specification emergency mode of operation by the CREFS." In addition, the wording which states, "on a STAGGERED TEST BASIS" is proposed to be deleted as these words imply a staggered test basis for a two-train CREFS.

c. TSTF-448, Revision 3, TS 5.5.18, Item d, second sentence which states, "The results shall be trended and used as part of the [18] month assessment of the CRE boundary." are revised to "periodic assessment." The trending of results from the CRE pressure test would be more appropriate as part of the periodic assessment prescribed in Item c.(ii) than as part of the 18 month pressure test.

d. TSTF-448, Revision 3, TS 5.5.18, Item e, third sentence states, "Unfiltered air inleakage limits for hazardous chemicals must ensure that exposure of CRE occupants to these hazards will be within the assumptions in the licensing basis." See Item 7.a above.

4.0 TECHNICAL EVALUATION

As part of the revised DBA radiological dose analysis implementing AST, the CREFS is credited to mitigate radiological doses to control room (CR) personnel. The design factors affecting the system's ability to meet the CR dose limits of 5.0 rem TEDE include actuation on a containment isolation or high radiation signal, emergency total filtration flow rate of 4950 cfm ±10% with a minimum recirculation flow of 1955 cfm, maintaining a positive pressure during the accident mitigation mode of operation, and meeting minimum filtration efficiencies for the HEPA and charcoal filters. For radiological habitability, the system is capable of providing CR pressurization to limit inleakage, makeup and recirculation through HEPA and charcoal filters to remove contaminates, and recirculation with filtration.

The CREFS consists of one emergency air filtration unit, two emergency fans, two recirculation fans, and the required ducts and dampers necessary to establish the required flow paths and isolation boundaries. The CREFS is an emergency system, parts of which operate during normal unit operations.

The AST accident analyses assume a new CR emergency mode designated CREFS Mode 5, which provides emergency HEPA/charcoal filtered outside air and HEPA/charcoal filtered recirculating air. To create the CREFS Mode 5 configuration, the Mode 4 flow path is modified to include the return air flow path to the emergency fans and filter. NextEra will modify the system to provide redundancy for all active components that are required to reposition from the normal operating position to the CREFS Mode 5 accident mode. Auto-start capability will be provided for the CREFS fans, from a diesel-generator supplied source, on loss of offsite power in conjunction with a containment isolation or high control room radiation signal.

In the event of a large break loss-of-coolant accident (LOCA), the safety injection (SI) setpoint will be reached shortly after event initiation. The SI/containment isolation signal causes the CREFS to switch from the normal operation mode to the CREFS Mode 5 configuration. The SI setpoint is assumed to be reached immediately at the start of the event and a 60-second delay time for switching from normal to CREFS Mode 5 is modeled.

In support of AST, numerous improvements to CREFS have been proposed, including:

- Augmented quality classification for selected CREFS components such as the emergency and recirculation fans, damper controllers, and charcoal/HEPA/roughing filter
- Redundancy for CREFS active components
- Auto-start capability from a diesel generator supplied source for the CREFS emergency and recirculation fans upon loss-of-offsite power in conjunction with a containment isolation or high control room radiation signal
- CREFS upgrades as identified in the seismic adequacy review

5.0 REGULATORY EVALUATION

5.1 Applicable Regulatory Requirements/Criteria

AST implementation is governed by 10 CFR 50.67, the guidelines of the Standard Review Plan (NUREG-0800), Section 15.0.1, Revision 0, "Radiological Consequence Analyses Using Alternate Source Terms" (ML003734190) and Regulatory Guide (RG) 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," dated July 2000 (ML003716792).

NextEra has reviewed the safety evaluation dated January 17, 2007, as part of the CLIIP. This review included a review of the NRC staff's evaluation, as well as the supporting information provided in TSTF-448, Revision 3. NextEra has concluded that some of the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to PBNP and justify portions of this supplement for incorporation of the changes into TS.

NextEra notes that there may be differences between Section 2.0, Regulatory Evaluation, of the TSTF-448, Revision 3, model safety evaluation and the PBNP Bases descriptions of the components required to be operable for CREFS to be operable. Differences are due to plant-specific design, or the current licensing basis.

PBNP was licensed prior to the 1971 publication of 10 CFR 50 Appendix A, General Design Criteria for Nuclear Power Plants (GDC) (ML003674718). As such, PBNP is not licensed to Appendix A GDCs, specifically GDCs 1, 2, 3, 4, 5, and 19 which are applicable to this license amendment supplement. PBNP Final Safety Analysis Report (FSAR) Section 1.3 lists the plant-specific GDCs to which the plant was licensed. The PBNP GDCs are similar in content to the draft GDCs proposed for public comment in 1967. The following discussion addresses the proposed change with respect to meeting the requirements of the applicable draft design criteria to which PBNP is licensed.

PBNP GDC 1 - Quality Standards. Those systems and components of reactor facilities which are essential to the prevention, or the mitigation of the consequences, of nuclear accidents which could cause undue risk to the health and safety of the public shall be identified and then designed, fabricated, and erected to quality standards that reflect the importance of the safety function to be performed. Where generally recognized codes and standards pertaining to design, materials, fabrication, and inspection are used, they shall be identified. Where adherence to such codes or standards does not suffice to assure a quality product in keeping with the safety function, they shall be supplemented or modified as necessary. Quality assurance programs, test procedures, and inspection acceptance criteria to be used shall be identified. An indication of the applicability of codes, standards, quality assurance programs, test procedures, and inspection acceptance criteria used is required. Where such items are not covered by applicable codes and standards, a showing of adequacy is required.

PBNP GDC 2 - Performance Standards. Those systems and components of reactor facilities which are essential to the prevention or to the mitigation of the consequences of nuclear accidents which could cause undue risk to the health and safety of the public shall be designed, fabricated, and erected to performance standards that enable such systems and components to withstand, without undue risk to the health and safety of the public, the forces that might reasonably be imposed by the occurrence of an extraordinary natural phenomenon such as earthquake, tornado, flooding condition, high wind, or heavy ice. The design bases so established shall reflect: (a) appropriate consideration of the most severe of these natural phenomena that have been officially recorded for the site and the surrounding area and (b) an appropriate margin for withstanding forces greater than those recorded to reflect uncertainties about the historical data and their suitability as a basis for design.

PBNP GDC 3 - Fire Protection. A reactor facility shall be designed to ensure that the probability of events such as fires and explosions and the potential consequences of such events will not result in undue risk to the health and safety of the public. Noncombustible and fire resistant materials shall be used throughout the facility wherever necessary to preclude such risk, particularly in areas containing critical portions of the facility such as containment, control room, and components of engineered safety features.

PBNP GDC 4 - Sharing of Systems. Reactor facilities may share systems or components if it can be shown that such sharing will not result in undue risk to the health and safety of the public.

PBNP GDC 11 - Control Room. The facility shall be provided with a control room from which actions to maintain safe operational status of the plant can be controlled. Adequate radiation protection shall be provided to permit continuous occupancy of the control room under any credible post-accident condition or as an alternative, access to other areas of the facility as necessary to shut down and maintain safe control of the facility without excessive radiation exposures of personnel.

PBNP GDC 40 - Missile Protection. Adequate protection for those engineered safety features, the failures of which could cause an undue risk to the health and safety of the public, shall be provided against dynamic effects and missiles that might result from plant equipment failures other than a rupture of the reactor coolant system piping. An original design basis for protection of equipment against the dynamic effects of a rupture of the reactor coolant system piping is no longer applicable.

5.2 Precedent

None.

5.3 Significant Hazards Consideration

In support of the Alternative Source Term (AST) accident analyses, the proposed change revises Technical Specification (TS) 3.7.9, Control Room Emergency Filtration System (CREFS), and would add new TS 5.5.18, Control Room Envelope Habitability Program, incorporating aspects of Technical Specification Task Force (TSTF) Traveler-448, Revision 3, Control Room Habitability, as well as joint NRC and industry guidance regarding control room habitability. The CREFS is relied upon to provide a protected environment within the control room from which occupants can control the unit, following an uncontrolled release of radioactivity.

The standards used to arrive at a determination that a request for an amendment involves a no significant hazards consideration are included in 10 CFR 50.92, which states that no significant hazards considerations are involved if the operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety.

NextEra has evaluated whether or not a significant hazards consideration is involved with the proposed amendment supplement by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No.

   The proposed change does not adversely affect accident initiators or precursors, nor alter the design assumptions, conditions or configuration of the facility. The proposed change does not alter the required mitigation capability of the CREFS, or its functioning during accident conditions as assumed in the AST analyses of design basis accident radiological consequences to control room occupants. The Control Room Envelope Habitability Program adds administrative controls to the TS ensuring control room habitability with an operable CREFS. Proposed TS changes, including a new habitability program and additional testing, produce more stringent TS requirements than the existing TS, enhancing the protection of control room occupants.

   Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any previously evaluated?

   Response: No.

   No new or different kinds of accidents result from performance of the revised TS surveillances or from the addition of the Control Room Envelope Habitability Program. The proposed changes do not involve a physical alteration of the CREFS (i.e., no new or different type of equipment will be installed) or a significant change in the methods governing normal plant operation. Proposed TS changes, including a new habitability program and additional testing, result in more stringent TS requirements than the existing TS, enhancing the protection of control room occupants.

   Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

   Response: No.

   The proposed changes do not alter the manner in which safety limits, limiting safety system settings, or limiting conditions for operating are determined. The proposed changes do not affect safety analysis acceptance criteria, and will not result in plant operation in a configuration outside the design basis for an unacceptable period of time without compensatory measures. The proposed TS changes, including a new habitability program and additional testing, provide more stringent TS requirements than the existing TS, enhancing the protection of control room occupants.

   Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, NextEra concludes that the proposed amendment supplement does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

The proposed amendment supplement is confined to (i) changes to surety, insurance, and/or indemnity requirements, or (ii) changes to recordkeeping, reporting, or administrative procedures or requirements. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(10). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment supplement.

7.0 REFERENCES

7.1 NextEra Energy Point Beach, LLC letter to NRC, dated March 30, 2010, License Amendment Request 241, Alternative Source Term, Regulatory Commitment Change (ML100900072)

7.2 NextEra Energy Point Beach, LLC letter to NRC, dated August 20, 2009, License Amendment Request 241, Alternative Source Term, Response to Request for Additional Information (ML092330180)

7.3 FPL Energy Point Beach, LLC letter to NRC, dated December 8, 2008, Submittal of License Amendment Request 241, Alternative Source Term (ML083450683)

7.4 Technical Specification Task Force, TSTF-448, Revision 3, "Control Room Habitability," August 6, 2006 (ML062210095)

7.5 NRC letter to Wisconsin Electric Power Company, dated August 10, 1982, NUREG-0737 Item III.D.3.4 – Control Room Habitability at Point Beach Nuclear Plant Units 1 and 2

ENCLOSURE 2

NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

SUPPLEMENT TO LICENSE AMENDMENT REQUEST 241
ALTERNATIVE SOURCE TERM
PROPOSED TECHNICAL SPECIFICATIONS FOR CONTROL ROOM EMERGENCY FILTRATION SYSTEM (CREFS)

PROPOSED APPENDIX C LICENSE CONDITIONS AND TECHNICAL SPECIFICATIONS MARKUPS

8 pages follow

APPENDIX C
ADDITIONAL CONDITIONS
OPERATING LICENSE DPR-24

FPL Energy Point Beach, LLC shall comply with the following conditions and the schedules noted below:

Amendment Number	Additional Conditions	Implementation Date
228	At the time of the closing of the transfer of the licenses from Wisconsin Electric Power Company (WEPCO) to FPLE Point Beach, WEPCO shall transfer to FPLE Point Beach WEPCO's decommissioning funds in an aggregate minimum value of $200.8 million for Point Beach Unit 1. FPLE Point Beach shall deposit such funds in an external decommissioning trust fund established by FPLE Point Beach for Point Beach Units 1 and 2. The trust agreement shall be in a form acceptable to the NRC.	Immediately
	FPLE Point Beach shall take no actions to cause FPLE Group Capital, or its successors and assigns, to void, cancel, or modify its $70 million Support Agreement (Agreement) to FPLE Point Beach, as presented in its application dated January 26, 2007, or cause it to fail to perform or impair its performance under the Agreement, without the prior written consent from the NRC. The Agreement may not be amended or modified without 30 days prior written notice to the Director of Nuclear Reactor Regulation or his designee. An executed copy of the Agreement shall be submitted to the NRC no later than 30 days after the completion of the license transfers. Also, FPLE Point Beach shall inform the NRC in writing anytime it draws upon the $70 million Agreement.	Immediately
XXX	Upon implementation of Amendment Nos. XXX/XXX adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air inleakage as required by SR 3.7.9.6, in accordance with TS 5.5.18.c.(i), the assessment of CRE habitability as required by Specification 5.5.18.c.(ii), and the measurement of CRE pressure as required by Specification 5.5.18.d, shall be considered met. Following implementation: a. The first performance of SR 3.7.9.6, in accordance with Specification 5.5.18.c.(i), shall be within 18 months of implementation of this amendment. b. The first performance of the periodic assessment of CRE habitability, Specification 5.5.18.c.(ii), shall be within three (3) years of completion of the testing prescribed in item a. above. c. The first performance of the periodic measurement of CRE pressure, Specification 5.5.18.d, shall be within 18 months of implementation of this amendment.	Immediately

APPENDIX C
ADDITIONAL CONDITIONS
OPERATING LICENSE DPR-27

FPL Energy Point Beach, LLC shall comply with the following conditions and the schedules noted below:

Amendment Number	Additional Conditions	Implementation Date
233	At the time of the closing of the transfer of the licenses from Wisconsin Electric Power Company (WEPCO) to FPLE Point Beach, WEPCO shall transfer to FPLE Point Beach WEPCO's decommissioning funds in an aggregate minimum value of $189.2 million for Point Beach Unit 2. FPLE Point Beach shall deposit such funds in an external decommissioning trust fund established by FPLE Point Beach for Point Beach Units 1 and 2. The trust agreement shall be in a form acceptable to the NRC.	Immediately
	FPLE Point Beach shall take no actions to cause FPLE Group Capital, or its successors and assigns, to void, cancel, or modify its $70 million Support Agreement (Agreement) to FPLE Point Beach, as presented in its application dated January 26, 2007, or cause it to fail to perform or impair its performance under the Agreement, without the prior written consent from the NRC. The Agreement may not be amended or modified without 30 days prior written notice to the Director of Nuclear Reactor Regulation or his designee. An executed copy of the Agreement shall be submitted to the NRC no later than 30 days after the completion of the license transfers. Also, FPLE Point Beach shall inform the NRC in writing anytime it draws upon the $70 million Agreement.	Immediately
XXX	Upon implementation of Amendment Nos. XXX/XXX adopting TSTF-448, Revision 3, the determination of control room envelope (CRE) unfiltered air inleakage as required by SR 3.7.9.6, in accordance with TS 5.5.18.c.(i), the assessment of CRE habitability as required by Specification 5.5.18.c.(ii), and the measurement of CRE pressure as required by Specification 5.5.18.d, shall be considered met. Following implementation: a. The first performance of SR 3.7.9.6, in accordance with Specification 5.5.18.c.(i), shall be within 18 months of implementation of this amendment. b. The first performance of the periodic assessment of CRE habitability, Specification 5.5.18.c.(ii), shall be within three (3) years of completion of the testing prescribed in item a. above. c. The first performance of the periodic measurement of CRE pressure, Specification 5.5.18.d, shall be within 18 months of implementation of this amendment.	Immediately

3.7 PLANT SYSTEMS

3.7.9 Control Room Emergency Filtration System (CREFS)

LCO 3.7.9 CREFS shall be OPERABLE~~.~~ with:

a. Two control room recirculation fans,

b. Two control room emergency fans,

c. One filter train,

d. Two control room emergency fan control dampers, and

e. Two isolation dampers in the kitchen area exhaust duct.

----------NOTE----------
The control room envelope (CRE) boundary may be opened intermittently under administrative control.

APPLICABILITY: MODES 1, 2, 3, 4,
During movement of irradiated fuel assemblies

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. ----------NOTE---------- Separate Condition entry is allowed for each component. ---------- ~~CREFS inoperable.~~One control room recirculation fan inoperable. OR One control room emergency fan inoperable. OR One control room emergency fan control damper inoperable.	A.1 Restore ~~CREFS~~ inoperable fan or damper to OPERABLE status.	7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. One isolation damper in the kitchen area exhaust duct inoperable.	B.1 Restore isolation damper to OPERABLE status. OR B.2 Place and maintain the other isolation damper in the same duct in the closed position.	7 days 7 days
C. ----------NOTE---------- Separate Condition entry is allowed for each component. ---------- Two control room recirculation fans inoperable. OR Two control room emergency fans inoperable. OR Two control room emergency fan control dampers inoperable. OR Filter train inoperable for reasons other than Condition D.	C.1 Initiate actions to implement mitigating actions. AND C.2 ----------NOTE---------- Not required following completion of Required Action C.3 ---------- Suspend movement of irradiated fuel assemblies. AND C.3 Verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits. AND C.4 Restore inoperable fans, dampers, or filter train to OPERABLE status.	Immediately Immediately 24 hours 7 days

ACTIONS (continued)

CONDITION	REQUIRED ACTION		COMPLETION TIME
D. ----------NOTE---------- Separate Condition entry is allowed for each component. ---------- Filter train inoperable due to an inoperable CRE boundary. OR Two isolation dampers in the kitchen exhaust duct inoperable	D.1	Initiate actions to implement mitigating actions.	Immediately
	AND		
	D.2	----------NOTE---------- Not required following completion of Required Action D.3 ---------- Suspend movement of irradiated fuel assemblies.	Immediately
	AND		
	D.3	Verify mitigating actions ensure CRE occupant radiological exposures will not exceed limits.	24 hours
	AND		
	D.4	Restore CRE boundary to OPERABLE status.	90 days
~~B~~E. Required Action and associated Completion Time of Condition A, B, C, or D not met in MODE 1, 2, 3, or 4 or not met during movement of irradiated fuel assemblies.	~~B~~E.1	Suspend movement of irradiated fuel assemblies.	Immediately
	AND		
	~~B~~E.2	Be in MODE 3.	6 hours
	AND		
	~~B~~E.3	Be in MODE 5.	36 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.9.1	Operate the CREFS for ≥ 15 minutes.	31 days
SR 3.7.9.2	Perform required CREFS filter testing in accordance with the Ventilation Filter Testing Program (VFTP).	In accordance with the VFTP
SR 3.7.9.3	Verify each CREFS emergency and recirculation ~~make-up~~ fan actuates on an actual or simulated actuation signal.	18 months
SR 3.7.9.4	Verify each CREFS automatic damper in the emergency mode flow path actuates to the correct position on an actual or simulated actuation signal.	18 months
SR 3.7.9.5	Verify CREFS manual start capability and alignment.	18 months
SR 3.7.9.6	Perform required CRE unfiltered air inleakage testing in accordance with the Control Room Envelope Habitability Program. ~~Verify each CREFS emergency make-up fan can maintain a positive pressure of ≥ 0.125 inches water gauge in the control room envelope, relative to the adjacent turbine building during the emergency mode of operation at a makeup flow rate of 4950 cfm ± 10%.~~	In accordance with the Control Room Envelope Habitability Program ~~18 months~~

5.5.18 Control Room Envelope Habitability Program

A Control Room Envelope (CRE) Habitability Program shall be established and implemented to ensure that CRE habitability is maintained such that, with an OPERABLE Control Room Emergency Filtration System (CREFS), CRE occupants can control the reactor safely under normal conditions and maintain it in a safe condition following a radiological event. The program shall ensure that adequate radiation protection is provided to permit access and occupancy of the CRE under design basis accident (DBA) conditions without personnel receiving radiation exposures in excess of 5 rem total effective dose equivalent (TEDE) for the duration of the accident. The program shall include the following elements:

a. The definition of the CRE and the CRE boundary.

b. Requirements for maintaining the CRE boundary in its design condition including configuration control and preventive maintenance.

c. Requirements for (i) determining the unfiltered air inleakage past the CRE boundary into the CRE in accordance with the testing methods and at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Revision 0, May 2003, and (ii) assessing CRE habitability at the Frequencies specified in Sections C.1 and C.2 of Regulatory Guide 1.197, Revision 0.

d. Measurement, at designated locations, of the CRE pressure relative to all external areas adjacent to the CRE boundary during the technical specification emergency mode of operation by the CREFS, operating at the flow rate required by the VFTP, at a Frequency of 18 months. The results shall be trended and used as part of the periodic assessment of the CRE boundary.

e. The quantitative limits on unfiltered air inleakage into the CRE. These limits shall be stated in a manner to allow direct comparison to the unfiltered air inleakage measured by the testing described in Paragraph c. The unfiltered air inleakage limit for radiological challenges is the inleakage flow rate assumed in the licensing basis analyses of DBA consequences.

f. The provisions of SR 3.0.2 are applicable to the Frequencies for assessing CRE habitability, determining CRE unfiltered inleakage, and measuring CRE pressure and assessing the CRE boundary as required by Paragraphs c and d, respectively.

ENCLOSURE 3

NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

SUPPLEMENT TO LICENSE AMENDMENT REQUEST 241
ALTERNATIVE SOURCE TERM
PROPOSED TECHNICAL SPECIFICATIONS FOR CONTROL ROOM EMERGENCY FILTRATION SYSTEM (CREFS)

PROPOSED TECHNICAL SPECIFICATION BASES MARKUPS
(FOR INFORMATION ONLY)

13 pages follow

B 3.7 PLANT SYSTEMS

B 3.7.9 Control Room Emergency Filtration System (CREFS)

BASES

BACKGROUND

The CREFS provides a protected environment from which ~~operators~~ occupants can control the unit following an uncontrolled release of radioactivity.

The CREFS consists of one emergency ~~make-up~~ air filtration unit, two emergency ~~make-up~~ fans, two recirculation fans, and the required ducts, valves, instrumentation, doors, barriers, and dampers necessary to establish the required flow paths and isolation boundaries that recirculate and filter the air in the control room envelope (CRE) and a CRE boundary that limits the inleakage of unfiltered air. Doors, walls, floor, roof, penetrations, and barriers also form part of the system. The CREFS is an emergency system, parts of which operate during normal unit operations.

The CRE is the area within the confines of the CRE boundary that contains the spaces that the control room occupants inhabit to control the unit during normal and accident conditions. This area encompasses the control room, and may encompass other non-critical areas to which frequent personnel access or continuous occupancy is not necessary in the event of an accident. The CRE is protected during normal operation, natural events and accident conditions. The CRE boundary is the combination of walls, floor, roof, ducting, doors, penetrations, and equipment that physically form the CRE. The OPERABILITY of the CRE boundary must be maintained to ensure that the inleakage of unfiltered air into the CRE will not exceed the inleakage assumed in the licensing basis analysis of design basis accident (DBA) consequences to CRE occupants. The CRE and its boundary are defined in the Control Room Envelope Habitability Program.

The CREFS has ~~four~~five modes of operation, however only Mode 5 is credited in the FSAR Chapter 14 radiological analyses. FSAR 9.8 (Ref. 1) provides a system description for all five modes of CREFS operation.

- ~~Mode 1 (normal operation) - One of the two recirculation fans (W-13B1 or W-13B2) are in operation. Outside air is supplied from an intake penthouse located on the roof of the auxiliary building at a rate of approximately 1000 cfm (5% of system design flow) via~~

BACKGROUND (continued)

damper VNCR-4849C which is throttled to a predetermined position. The make-up air combines with return air from the control room and computer room then passing through filter (F-43) and cooling units (HX-100 A&B) before entering the recirculation fan. Filtered and cooled air is supplied to the mechanical equipment room and through separate heating coils (HX-92 and HX-91 A&B), and humidifiers (Z-78 and Z-77) to the computer and control rooms respectively. Room thermostats and humidistats control the operation of the heating coils, chilled water system, and humidifiers. The control room heating, cooling, and humidification systems are not required to demonstrate compliance with the control room habitability limits of 10 CFR 50 Appendix A, GDC-19 as required by NUREG-0737, Item III.D.3.4. The computer room is supplied with supplementary cooling during normal operation via supplementary air conditioning units (W-107A/HX-190A/HX-191A or W-107B/HX-190B/HX-191B). Nominally, the control room washroom exhaust fan (W-15) is also in operation. Operation of the Control Room Ventilation System in mode 1 (normal operation) is not assumed for control room habitability, and is therefore not a Technical Specification required mode of operation.

- Mode 2 (recirculation operation) - 100% of the control room and computer room air is recirculated. In this mode, the outside air damper (VNCR-4849C) is closed and the control room washroom exhaust fan is de-energized. Recirculation can be automatically initiated by a Containment Isolation or Safety Injection signal, or can be manually initiated from the control room. Operation of the

BASES

BACKGROUND (continued)

~~Control Room Ventilation System in mode 2 (recirculation) is not assumed for control room habitability, and is therefore not a Technical Specification required mode of operation.~~

- ~~Mode 3 (recirculation/charcoal adsorber operation) - One of two control room emergency make-up fans (W-14A or W-14B) is in operation and air is supplied to the emergency make-up charcoal filter unit (F-16) via the computer and control room return air duct (damper VNCR-4851B). The normal outside air supply is secured (damper VNCR-4849C closed) and the control room washroom exhaust fan is de-energized. In this mode approximately 25% of the return air is being recirculated by the emergency make-up charcoal filter unit back to the suction of the control room recirculation fans. Recirculation/charcoal adsorber mode is manually initiated from the control room. Operation of the Control Room Ventilation System in mode 3 (recirculation/charcoal adsorber mode) is not assumed for control room habitability, and is therefore not a Technical Specification required mode of operation.~~

- ~~Mode 4 (emergency make-up) - Operation in this mode is similar to mode 3 except return air inlet damper VNCR-4851B to the emergency fans remains closed and outside air supply to the emergency make-up charcoal filter unit opens (damper VNCR-4851A). This allows approximately 4950 cfm (25% of system design flow) of make-up air to pass through the emergency make-up charcoal filter unit to the suction of the control room recirculation fan. This make-up flow rate is sufficient to assure a positive pressure of $\geq$ 1/8 in. water gage is maintained in the control and computer rooms to prevent excessive unfiltered in-leakage into the control room ventilation boundary. Mode 4 (emergency make-up) is automatically initiated by a high radiation signal from the control room area monitor RE-101, or a high radiation signal from noble gas monitor RE-235 located in the supply duct to the control room. This mode of operation can also be manually initiated from the control room. Operation of the Control Room Ventilation System in mode 4 (emergency make-up) is the assumed mode of operation for the control room habitability analysis, and is therefore the only mode of operation addressed by this LCO.~~

~~The air entering the control room is continuously monitored by noble gas radiation monitors and the control room itself is continuously monitored by an area radiation monitor. One detector output above its setpoint will actuate the emergency make-up mode of operation (mode 4) for the CREFS.~~

Mode 5 (emergency HEPA/charcoal filtered outside air and HEPA/charcoal filtered return air) allows a combination of outside air

BASES

BACKGROUND (continued)

and return air ≥1955 cfm to pass through the emergency HEPA/charcoal filter unit to the suction of the control room recirculation fan for a total flow rate of 4950 cfm ±10%. This makeup flow rate is sufficient to assure a positive pressure that will prevent excessive unfiltered in-leakage into the CRE. Mode 5 is automatically initiated by a containment isolation signal, or by a high radiation signal from the control room monitor RE-101, or by a high radiation signal from the noble gas monitor RE-235 located in the supply duct to the control room. This mode of operation can also be manually initiated from the control room. Operation of the CREFS in Mode 5 is the assumed mode of operation for the control room habitability analyses, and is therefore, the only mode of operation addressed by the Technical Specification LCO.

BASES

BACKGROUND (continued)

The limiting design basis accident for the CRE ~~control room~~ dose analysis is the large break LOCA. CREFS ~~does not~~ automatically ~~re~~starts after being load shed following a loss of offsite power~~; manual action is required to restart CREFS~~. ~~Although it has been demonstrated that a loss of offsite power does not need to be assumed coincident with a LOCA with respect to CREFS system analysis and control room habitability, t~~The control room emergency ~~make-up~~ and recirculation fans have been included in the emergency diesel generator loading profile ~~during the recirculation phase of a loss of coolant accident~~.

~~The CREFS will pressurize the control and computer rooms to at least 0.125 inches water gauge in the emergency make-up mode of operation. The CREFS role in maintaining the control room habitable is discussed in the FSAR, Section 9.8 (Ref. 1).~~

APPLICABLE SAFETY ANALYSES

The CREFS provides airborne radiological protection for CRE occupants ~~control room personnel~~, as demonstrated by the limiting CRE ~~control room~~ dose analyses for the design basis large break LOCA ~~loss of coolant accident~~. CRE ~~control room~~ dose analysis assumptions are presented in the FSAR, Section 14.3.5 (Ref. 2).

The CREFS satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

The CREFS (~~m~~Mode ~~4~~5) is required to be OPERABLE to ensure that the CRE ~~control room~~ habitability limits are met following ~~a~~ limiting design basis ~~LOCA~~ accidents. Total system failure could result in exceeding the control room operator total effective dose equivalent (TEDE) limit of 5~~thyroid dose limit of 30~~ rem in the event of a large radioactive release. The CREFS is considered OPERABLE when the individual components necessary to filter and limit CRE ~~control room~~ in-leakage are OPERABLE. CREFS is considered OPERABLE when:

a. Both emergency ~~make-up~~ fans (W-14A and W-14B) are OPERABLE;

b. ~~One~~Both recirculation fans (W-13B1 ~~or~~ and W-13B2) ~~is~~ are OPERABLE;

c. Emergency ~~make-up~~ filter unit (F-16), HEPA filters and charcoal adsorbers are not excessively restricting flow, and are capable of performing their filtration functions;

BASES

LCO (continued)

d. Both emergency fan control dampers (VNCR-4851C and VNCR-4851D) are OPERABLE;

e. Both isolation dampers in the kitchen area exhaust duct (CV-6748 and CV-6748A) are OPERABLE;

~~f. Control room ventilation envelope is capable of achieving and maintaining a positive pressure of at least 0.125 inches water gauge in the emergency make-up mode of operation;~~

BASES

LCO (continued)

f. Ductwork, valves, and dampers are OPERABLE, and air circulation can be maintained; and

g. CREFS is capable of being automatically and manually initiated in the emergency ~~make-up~~ mode of operation (~~m~~Mode ~~4~~5).

~~In addition, the control room boundary must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors.~~ In order for CREFS to be considered OPERABLE, the CRE boundary must be maintained such that the CRE occupant dose from a large radioactive release does not exceed the calculated dose in the licensing basis consequence analyses for DBAs.

The LCO is modified by a Note allowing the CRE boundary to be opened intermittently under administrative controls. This Note only applies to openings in the CRE boundary that can be rapidly restored to the design condition, such as doors, hatches, floor plugs, and access panels. For entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls should be proceduralized and consist of stationing an individual at the opening who is in continuous communication with the operators in the CRE. This individual will have a method to rapidly close the opening and to restore the CRE boundary to a condition equivalent to the design condition when a need for CRE isolation is indicated.

APPLICABILITY

In MODES 1, 2, 3, 4, and during movement of irradiated fuel assemblies, CREFS must be OPERABLE to ~~control operator exposure~~ ensure that the CRE will remain habitable during and following a DBA.

During movement of irradiated fuel assemblies, the CREFS must be OPERABLE to cope with the release from a fuel handling accident.

ACTIONS

A.1

Condition A is modified by a Note indicating that separate Condition entry is allowed for each component. When ~~CREFS~~one control room recirculation fan is inoperable, or one control room emergency fan is inoperable, or one control room emergency fan control damper is inoperable, action must be taken to restore the ~~system~~fan or damper to OPERABLE status within 7 days. The 7 day Completion Time is based on the low probability of a DBA challenging control room habitability occurring during this time period.

BASES

ACTIONS (continued) B.1 or B.2

When one isolation damper in the kitchen area exhaust duct is inoperable, action must be taken to restore the damper to OPERABLE status within 7 days or the other isolation damper in the same duct must be placed and maintained in the closed position within 7 days. The 7 day Completion Time is based on the low probability of a DBA challenging control room habitability occurring during this time period.

C.1, C.2, and C.3

Condition C is modified by a Note indicating that separate Condition entry is allowed for each component. When two control room recirculation fans are inoperable, or two control room emergency fans are inoperable, or two control room emergency fan control dampers are inoperable, or the filter train is inoperable for reasons other than an inoperable CRE boundary: immediately initiate actions to implement mitigating actions to lessen the effect on CRE occupants from the potential hazards of a radiological event; immediately suspend movement of irradiated fuel assemblies until the following action is completed; verify within 24 hours that the mitigating actions taken ensure CRE occupant radiological exposures will not exceed limits; and restore the inoperable fans, dampers, or filter train to OPERABLE status within 7 days.

The mitigating actions (i.e., actions that are taken to offset the consequences of the inoperable fans, dampers, or filter train) should be preplanned for implementation upon entry into the condition, regardless of whether entry is intentional or unintentional. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of mitigating actions such as filtration unit(s) and administration of KI, as appropriate. The 7 day Completion Time is reasonable based on the determination that the mitigating actions will ensure protection of CRE occupants within analyzed limits, while limiting the probability that CRE occupants will have to implement protective measures that may adversely affect their ability to control the reactor and maintain it in a safe shutdown condition in the event of a DBA. In addition, the 7 day Completion Time is a reasonable time to diagnose, plan and possibly repair, and test most problems with the inoperable fans, dampers, and/or filter train.

BASES

ACTIONS (continued) D.1, D.2, and D.3

Condition D is modified by a Note indicating that separate Condition entry is allowed for each component. If the unfiltered inleakage of potentially contaminated air past the CRE boundary and into the CRE can result in CRE occupant radiological dose greater than the dose limit of the licensing basis analyses of DBA consequences (allowed to be up to 5 rem TEDE), the CRE boundary is inoperable. When the filter train is inoperable due to an inoperable CRE-boundary: immediately initiate actions to implement mitigating actions to lessen the effect on CRE occupants from the potential hazards of a radiological event; immediately suspend movement of irradiated fuel assemblies until the following action is completed; verify within 24 hours that the mitigating actions taken ensure CRE occupant radiological exposures will not exceed limits; and restore the CRE boundary to OPERABLE status within 90 days.

The mitigating actions (i.e., actions that are taken to offset the consequences of the inoperable filter train due to an inoperable CRE boundary, including two kitchen area exhaust duct isolation dampers inoperable) should be preplanned for implementation upon entry into the condition, regardless of whether entry is intentional or unintentional. The 24 hour Completion Time is reasonable based on the low probability of a DBA occurring during this time period, and the use of mitigating actions to include temporary patches, plates, and/or plugs. The 90 day Completion Time is reasonable based on the determination that the mitigating actions will ensure protection of CRE occupants within analyzed limits, while limiting the probability that CRE occupants will have to implement protective measures that may adversely affect their ability to control the reactor and maintain it in a safe shutdown condition in the event of a DBA. In addition, the 90 day Completion Time is a reasonable time to diagnose, plan and possibly repair, and test most problems with the CRE boundary.

~~B.1, B.2 and B.3~~E.1, E.2 and E.3

If CREFS cannot be restored to OPERABLE status within the required Completion Time of Condition A, B, C, or D with movement of irradiated fuel in progress, ~~this activity must be suspended immediately~~ action must be taken to immediately suspend activities that could result in a release of radioactivity that might require isolation of the CRE. This ~~Immediately suspending this activity~~ places the units in a condition that minimizes the accident risk ~~from this activity~~. This does not preclude the movement of fuel to a safe position.

BASES

ACTIONS (continued) In MODE 1, 2, 3, or 4, if CREFS cannot be restored to OPERABLE status within the required Completion Time of Condition A, B, C, or D, the units must be placed in a MODE that minimizes accident risk. To achieve this status, the units must be placed in at least MODE 3 within 6 hours, and in MODE 5 within 36 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.7.9.1

Standby systems should be checked periodically to ensure that they function properly. As the environment and normal operating conditions on this system are not too severe, testing each fan subsystem once every month provides an adequate check of this system. Systems without heaters need only be operated for ≥ 15 minutes to demonstrate the function of the system. The 31 day Frequency is based on the reliability of the equipment.

SR 3.7.9.2

This SR verifies that the required CREFS testing is performed in accordance with the Ventilation Filter Testing Program (VFTP). ~~The Frequency of CREFS filter tests are in accordance with Regulatory Guide 1.52 (Ref. 3).~~ The VFTP includes testing the performance of the HEPA filter, charcoal adsorber efficiency, minimum flow rate, and the physical properties of the activated charcoal. Specific test Frequencies and additional information are discussed in detail in the VFTP.

SR 3.7.9.3

This SR verifies that each CREFS emergency and recirculation ~~make-up~~ fan starts and operates on an actual or simulated actuation signal. The Frequency of 18 months is ~~specified in Regulatory Guide 1.52 (Ref. 3)~~ based on industry operating experience and is consistent with the typical refueling cycle.

SR 3.7.9.4

This SR verifies that each CREFS automatic damper in the emergency ~~make-up~~ mode flow path will actuate to its required position on an actuation signal. The Frequency of 18 months ~~specified in Regulatory Guide 1.52 (Ref. 3)~~ is based on industry operating experience and is consistent with the typical refueling cycle.

SR 3.7.9.5

This test verifies manual actuation capability for CREFS. Manual actuation capability is a required for OPERABILITY of the CREFS. The 18 month Frequency is acceptable based on the inherent reliability of manual actuation circuits.

BASES

SURVEILLANCE REQUIREMENTS (continued)

SR 3.7.9.6

This SR verifies the OPERABILITY of the CRE boundary by testing for unfiltered air inleakage past the CRE boundary and into the CRE. The details of the testing are specified in the Control Room Envelope Habitability Program.

The CRE is considered habitable when the radiological dose to CRE occupants calculated in the licensing basis analyses of DBA consequences is no more than 5 rem TEDE. This SR verifies that the unfiltered air inleakage into the CRE is no greater than the flow rate assumed in the licensing basis analyses of DBA consequences. When unfiltered air inleakage is greater than the assumed flow rate, Condition D must be entered. Required Action D.4 allows time to restore the CRE boundary to OPERABLE status provided mitigating actions can ensure that the CRE remains within the licensing basis habitability limits for the occupants following an accident. Compensatory measures are discussed in Regulatory Guide 1.196, Section C.2.7.3, (Ref. 3) which endorses with exceptions, NEI 99-03, Section 8.4 and Appendix F (Ref. 4). These compensatory measures may also be used as mitigating actions as required by Required Action D.3. Temporary analytical methods may also be used as compensatory measures to restore OPERABILITY (Ref. 5). Options for restoring the CRE boundary to OPERABLE status include changing the licensing basis DBA consequence analysis, repairing the CRE boundary, or a combination of these actions. Depending upon the nature of the problem and the corrective action, a full scope inleakage test may not be necessary to establish that the CRE boundary has been restored to OPERABLE status.

~~This SR verifies the integrity of the control room enclosure. The control room positive pressure, with respect to potentially contaminated adjacent areas, is periodically tested to verify proper functioning of the CREFS. During the emergency mode of operation, the CREFS is~~

BASES

SURVEILLANCE REQUIREMENTS (continued)

~~designed to pressurize the control room ≥ 0.125 inches water gauge positive pressure with respect to adjacent areas in order to minimize unfiltered inleakage. The CREFS is designed to maintain this positive pressure with one emergency make-up fan in operation at a makeup flow rate of ± 10% of the nominal make-up pressurization flow rate of approximately 4950 cfm. The Frequency of 18 months is consistent with the guidance provided in NUREG-0800 (Ref. 4).~~

REFERENCES

1. FSAR. Section 9.8.
2. FSAR. Section 14.3.5.
3. ~~Regulatory Guide 1.52, Rev. 2.~~ Regulatory Guide 1.196
4. ~~NUREG-0800, Section 6.4, Rev. 2, July 1981~~ NEI 99-03, "Control Room Habitability Assessment," June 2001.
5. Letter from Eric J. Leeds (NRC) to James W. Davis (NEI) dated January 30, 2004, "NEI Draft White Paper, Use of Generic Letter 91-18 Process and Alternative Source Terms in the Context of Control Room Habitability." (ADAMS Accession No. ML040160868).

ENCLOSURE 4

NEXTERA ENERGY POINT BEACH, LLC
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

SUPPLEMENT TO LICENSE AMENDMENT REQUEST 241
ALTERNATIVE SOURCE TERM
PROPOSED TECHNICAL SPECIFICATIONS FOR CONTROL ROOM EMERGENCY FILTRATION SYSTEM (CREFS)

ANALYSIS RESULTS FOR CREFS INOPERABLE AND DESIGN CRITERIA FOR THE MITIGATING FILTRATION UNIT(S)

NextEra has performed a control room (CR) dose calculation for limiting alternative source term (AST) radiological accidents, without credit for the control room emergency filtration system (CREFS) and including the effects of use of mitigating actions. The following assumptions were applied to the calculation:

- The benefit of 1000 cubic feet per minute (cfm) filtered recirculation by mitigating filtration unit(s) is considered with assumed filter efficiencies of 99% for particulates and 95% for elemental and organic iodine. This filtration is assumed to be started one hour after the initiation of the accident.

- The benefit of potassium iodide (KI) ingestion to reduce the dose to the thyroid from inhalation of iodines by a factor of 10 is considered.

- No other changes are made to the release models in the analyses submitted with license amendment request (LAR) 241 (Reference 1).

This AST calculation result for CR dose for the worst-case large break LOCA would meet the 5 Rem total effective dose equivalent (TEDE) dose limit based on the use of the mitigating filtration unit(s) and administration of KI, without credit for CREFS.

Design Criteria for the Mitigating Filtration Unit(s)

The modification design criteria are as follows:

- A 1000 cfm high efficiency particulate (HEPA)/charcoal filter system needs to be installed outside the CR.

- Ductwork needs to be built between the CR wall and the filter system, and needs to conform to CR security requirements.

- Power for the system will be emergency diesel generator-backed power.

- Bubble tight manual dampers to assure maintaining the normal CRE will be provided to isolate the system when it is not in use.

- The system will be classified as augmented quality.

- The system will be seismically supported.
- System testing will be in accordance with the Ventilation Filter Test Program.

References

(1) NextEra Energy Point Beach, LLC letter to NRC, dated August 20, 2009, License Amendment Request 241, Alternative Source Term, Response to Request for Additional Information (ML092330180)