NEXTera ENERGY SEABROOK

10 CFR 50.90

SBK-L-10074
Docket No. 50-443

MAY 14, 2010

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

Seabrook Station

License Amendment Request 10-02

Application for Change to the Technical Specifications for the
Containment Enclosure Emergency Air Cleanup System

In accordance with the provisions of Section 50.90 of Title 10 of the Code of Federal Regulations (10 CFR), NextEra Energy Seabrook, LLC (NextEra) is submitting License Amendment Request (LAR) 10-02 for an amendment to the Technical Specifications (TS) for Seabrook Station. The proposed change would revise TS 3.6.5.1, Containment Enclosure Emergency Air Cleanup System (CEEACS).

Seabrook TS 3.6.5.1 does not address the condition in which both trains of the containment enclosure emergency air cleanup system (CEEACS) are inoperable due to a degraded ventilation system boundary. As a result, an opening in the CEEACS ventilation area boundary requires entry into TS 3.0.3 (an orderly shutdown of the unit) for two inoperable trains of CEEACS. The proposed change would allow 24 hours to restore integrity of the ventilation area boundary before requiring shutdown of the plant. The change would also allow opening of the CEEACS ventilation area boundary under administrative controls. The proposed change would adopt the provisions in Technical Specification Task Force Traveler TSTF-287-A, revision 5, and apply the note, conditions, and required actions to Seabrook TS 3.6.5.1 for the CEEACS.

Attachment 1 to this letter provides NextEra's evaluation of the change, and Attachment 2 provides a markup of the TS showing the proposed change. Attachment 3 includes proposed changes to the TS bases, which are provided for information only. The TS bases will be revised in accordance with TS 6.7.6.j, Technical Specification (TS) Bases Control Program, upon implementation of the license amendment. As discussed in the evaluation, the proposed change does not involve a significant hazards consideration pursuant to 10 CFR 50.92, and there are no significant environmental impacts associated with the change. The Station Operation Review

A001
NRR

Committee has reviewed this LAR. A copy of this LAR has been forwarded to the New Hampshire State Liaison Officer pursuant to 10 CFR 50.91(b).

NextEra requests NRC review and approval of LAR 10-02 with issuance of a license amendment by November 30, 2010 and implementation of the amendment within 30 days.

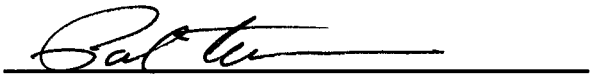
This letter makes the following commitment, which is included in Attachment 4:

> Upon implementation of the changes requested in LAR 10-02, NextEra will have written procedures available describing compensatory measures to be taken in the event of an intentional or unintentional entry into TS action 3.6.5.1.b for two inoperable trains of CEEACS due to an inoperable containment enclosure boundary.

Should you have any questions regarding this letter, please contact Mr. Michael O'Keefe, Licensing Manager, at (603) 773-7745.

Sincerely,

NextEra Energy Seabrook, LLC



Paul Freeman
Site Vice President

Attachments

1. NextEra Energy Seabrook's Evaluation of the Proposed Change
2. Markup of the Technical Specifications
3. Markup of the Technical Specification Bases
4. Regulatory Commitment

cc: S. J. Collins, NRC Region I Administrator
G. E. Miller, NRC Project Manager
W. J. Raymond, NRC Senior Resident Inspector

Mr. Christopher M. Pope, Director Homeland Security and Emergency Management
New Hampshire Department of Safety
Division of Homeland Security and Emergency Management
Bureau of Emergency Management
33 Hazen Drive
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The Commonwealth of Massachusetts
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SBK-L-10074

Seabrook Station

License Amendment Request 10-02

Application for Change to the Technical Specifications for the Containment Enclosure Emergency Air Cleanup System

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Mashhadi, M.	e-mail
Nicholson, L.	e-mail
Dryden, M. S.	e-mail
Brown, A.	e-mail
Letter Distribution	e-mail
File 0018	01-48
File 0052	01-48
RMD	02-06

NEXTera ENERGY SEABROOK

AFFIDAVIT

SEABROOK STATION UNIT 1

Facility Operating License NPF-86

Docket No. 50-443

License Amendment Request 10-02

Application for Change to the Technical Specifications for the Containment Enclosure Emergency Air Cleanup System

The following information is enclosed in support of this License Amendment Request:

- **NextEra Energy Seabrook's Evaluation of the Proposed Change**
- **Markup of the Technical Specifications**
- **Markup of the Technical Specification Bases**
- **Regulatory Commitment**

I, Paul Freeman, Site Vice President of NextEra Energy Seabrook, LLC hereby affirm that the information and statements contained within this license amendment request are based on facts and circumstances which are true and accurate to the best of my knowledge and belief.

Sworn and Subscribed
before me this
14 day of May, 2010

Michael O'Keefe
Notary Public

MICHAEL D. O'KEEFE
MY COMMISSION EXPIRES FEB. 13, 2013
NOTARY PUBLIC NEW HAMPSHIRE

Paul Freeman
Site Vice President

Attachment 1

NextEra Energy Seabrook's Evaluation of the Proposed Change

Subject: License Amendment Request 10-02, Application for Change to the Technical Specifications for the Containment Enclosure Emergency Air Cleanup System

1.0 SUMMARY DESCRIPTION

This license amendment request (LAR) proposes a change to Seabrook Station Technical Specification (TS) 3.6.5.1, Containment Enclosure Emergency Air Cleanup System (CEEACS). TS 3.6.5.1 does not address the condition in which both trains of the CEEACS become inoperable due to a degraded ventilation system boundary. As a result, a loss of integrity of the CEEACS ventilation area boundary requires entry into TS 3.0.3 (an orderly shutdown of the unit) for two inoperable trains of CEEACS. The proposed change would allow 24 hours to restore integrity of the ventilation area boundary before requiring shutdown of the plant. The change would also allow opening of the CEEACS ventilation area boundary under administrative controls. The proposed change would adopt the provisions in Technical Specification Task Force Traveler TSTF-287-A, revision 5 [Reference 1], and apply the note, conditions, and required actions to Seabrook TS 3.6.5.1 for the CEEACS.

The proposed change would resolve a discrepancy in required actions between TS 3.6.5.1 for the CEEACS, and TS 3.6.5.2, Containment Enclosure Building Integrity. Currently, TS 3.6.5.2 allows 24 hours to restore containment enclosure building integrity. However, the same condition would require entry into TS 3.0.3 for two inoperable trains of CEEACS due to an inoperable ventilation area boundary. This change would add a new action to TS 3.6.5.1, which would provide 24 hours to restore the containment enclosure boundary to operable status when two trains of CEEACS are inoperable due to an inoperable containment enclosure boundary.

2.0 DETAILED DESCRIPTION

Proposed Changes

The Limiting Condition for Operation (LCO) for TS 3.6.5.1 is modified with the following note:

> *The containment enclosure boundary may be opened intermittently under administrative control.*

The action below is added to TS 3.6.5.1:

> *b. With both Containment Enclosure Emergency Air Cleanup System trains inoperable due to an inoperable containment enclosure boundary, restore the boundary to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.*

One editorial change is made to TS 3.6.5.1. The term *train* is added to the LCO and action.

The footnote that allowed a one time, seven-day extension to the allowed outage time in June 2006 is deleted.

Condition the Proposed Change is Intended to Resolve

TS 3.6.5.1 requires two operable trains of CEEACS in Modes 1 through 4. Various surveillance requirements (SR) associated with this TS confirm operability of the ventilation equipment, including tests of the exhaust fans, charcoal adsorbers, HEPA filters, and system flow rates. The TS also includes a SR that verifies the CEEACS is capable of establishing a negative pressure in the containment enclosure within four minutes following a start signal. The primary purpose of this SR is to demonstrate integrity of the containment enclosure. To meet this SR, the containment enclosure boundary must be intact. If the boundary is not intact, the SR cannot be met (even if the other SRs on the ventilation equipment are met), both trains of the CEEACS cannot perform their intended function, and TS 3.0.3, which requires an orderly plant shutdown, must be entered for two inoperable trains of CEEACS.

In addition to TS 3.6.5.1, the Seabrook TS also contain two separate LCOs that require containment enclosure integrity: TS 3.6.5.2, Containment Enclosure Building Integrity; and TS 3.6.5.3, Containment Enclosure Building Structural Integrity. In the event of a failure to meet the LCO, each of these TS provides 24 hours to restore containment enclosure integrity before a plant shutdown is required.

The proposed change would resolve the discrepancy in required actions between TS 3.6.5.1 for the CEEACS, and TS 3.6.5.2 and 3.6.5.3 for containment enclosure integrity. The change would add a new action to TS 3.6.5.1, which would provide 24 hours to restore the containment enclosure boundary to operable status when two trains of CEEACS are inoperable due to an inoperable containment enclosure boundary.

3.0 TECHNICAL EVALUATION

Background

Description of the Containment Enclosure Building

The containment enclosure building is located outside the containment building and has a geometry similar to the containment building. The function of the containment enclosure is to collect any fission products which could leak from the primary containment structure into the containment enclosure and contiguous areas following a loss-of-coolant accident (LOCA). The containment enclosure provides a low leakage rate barrier between the containment and the environment to control all leakage from the containment boundary. The system is comprised of (a) a structural barrier surrounding the

containment, adjacent vaults and penetration areas; and (b) a CEEACS, which maintains a pressure lower than ambient in the enclosure to prevent uncontrolled releases of radioactivity into the environment. The presence of the containment enclosure and the use of the CEEACS produce a slightly negative pressure between the containment enclosure and its external surroundings to minimize direct leakage from the containment structure to the environment under accident conditions. One train of CEEACS is required to draw down the entire containment enclosure area to a negative differential pressure within 8 minutes following a LOCA.

Current Technical Specifications Associated with the Containment Enclosure Building

- TS 3.6.5.1, Containment Enclosure Emergency Air Cleanup System, requires two operable trains of the CEEACS in Modes 1 through 4. With one train of CEEACS inoperable, the TS provides 7 days to restore the inoperable train to operable status.

- TS 3.6.5.2, Containment Enclosure Building Integrity, requires containment enclosure building integrity in Modes 1 through 4. Without integrity, the TS provides 24 hours to restore integrity.

- TS 3.6.5.3, Containment Enclosure Building Structural Integrity requires containment enclosure building structural integrity in Modes 1 through 4. Upon a failure to meet the LCO, the TS provides 24 hours to restore structural integrity.

Proposed Changes

The proposed change addresses the condition in which both trains of the CEEACS are rendered inoperable due to an inoperable containment enclosure boundary. While TS 3.6.5.2 and 3.6.5.3 provide 24 hours to restore containment enclosure building integrity and containment enclosure structural integrity, TS 3.6.5.1 does not address degraded or inoperable containment enclosure integrity.

SR 4.6.5.1.d.4 verifies that each train of the CEEACS is capable of producing a negative pressure in the containment enclosure. While other SRs in the same specification test operability of the ventilation equipment, the primary purpose of the negative pressure test is to demonstrate integrity of the containment enclosure building. However, TS 3.6.5.1 does not include an action for a failure to meet the negative pressure test SR. Under the existing specifications, TS 3.0.3 must be entered for two inoperable trains of CEEACS when the negative pressure test cannot be met due to an inoperable containment enclosure boundary. Requiring the plant to enter TS 3.0.3 when the containment enclosure boundary is not intact does not provide time to effect required repairs or

corrective maintenance activities, and is inconsistent with the 24 hour actions provided in TS 3.6.5.2 and 3.6.5.3 to restore containment enclosure integrity.

The first proposed change modifies the LCO for TS 3.6.5.1 to state that the containment enclosure boundary may be opened intermittently under administrative controls. This note would apply only to openings in the containment enclosure boundary that could be rapidly restored to the design condition. 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 would be proceduralized and consist of stationing a dedicated individual at the opening who is in continuous communication with operators in the control room. This individual will have a method to rapidly close the opening and to restore the containment enclosure boundary to a condition equivalent to the design condition when a need for containment enclosure boundary isolation is indicated. These administrative controls will ensure that the opening will be quickly sealed to maintain the validity of the licensing basis analyses of accident consequences.

The second proposed change adds a new action requirement to TS 3.6.5.1 for two trains of CEEACS rendered inoperable due to an inoperable containment enclosure boundary. Currently, if one CEEACS train is determined to be inoperable, the existing action requirement would apply and require restoring the train to operable status within 7 days. However, if two trains are determined to be inoperable due to an inoperable containment enclosure boundary, immediate entry into the shutdown actions of TS 3.0.3 is required. Although TS 3.6.5.2 and 3.6.5.3 allow 24 hours to restore containment enclosure building integrity before requiring a plant shutdown, TS 3.6.5.1 does not address the same condition by providing time to restore the boundary before requiring a plant shutdown. The proposed change adds a new action requirement, consistent with TS 3.6.5.2 and 3.6.5.3, that would allow 24 hours to restore the containment enclosure boundary in the event that both trains of the CEEACS are inoperable due to an inoperable containment enclosure boundary.

Written procedures would be available describing compensatory measures to be taken in the event of an intentional or unintentional entry into the proposed new action for two inoperable trains of CEEACS due to an inoperable containment enclosure boundary. The procedures would provide appropriate, preplanned compensatory measures consistent with the intent, as applicable, of GDC 19, 60, 64 and 10 CFR Part 50.67 to protect plant personnel from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. The proposed 24 hour completion time is reasonable based on the low probability of a design basis accident occurring during this time period and the use of preplanned compensatory measures. The 24 hour period is also a reasonable time to diagnose, plan, repair, and test most problems with the containment enclosure boundary.

One editorial change is included in this proposed change. The term *train* is added to the LCO and action in TS 3.6.5.1. The current TS discusses two Containment Enclosure Emergency Air Cleanup Systems. The TS is revised to refer to two *trains* of the

emergency air cleanup system rather than two systems. This change makes TS 3.6.5.1 consistent with the other TS for emergency ventilation systems. This change improves the quality and presentation of the TS, is editorial in nature, and has no impact on safety.

In addition, the footnote that allowed a one time, seven-day extension to the allowed outage of TS 3.6.5.1 in June 2006 is deleted. This is a non-substantive administrative change that removes from the TS a provision that is no longer applicable.

Precedent

The proposed changes are consistent with the changes implemented in the Improved Standard TS (NUREG-1431) [Reference 2] by NRC-approved Technical Specification Task Force Traveler TSTF-287-A, Revision 5. This traveler eliminated the need to immediately enter TS 3.0.3 for ventilation systems rendered inoperable by inoperable ventilation system boundaries. TSTF-287 modified the TS for various ventilation systems to allow 24 hours to restore ventilation barrier integrity before requiring a unit shutdown. The traveler also added a provision that allows intermittent opening of a ventilation barrier under administrative controls.

In Amendment 119 to the Seabrook TS [Reference 3], the NRC approved changes to TS 3.7.6.1, Control Room Emergency Makeup Air and Filtration System (CREMAFS), which are similar to those proposed in this application. Amendment 119 revised TS 3.7.6.1 by adding a note that modified the LCO to permit opening of the control room envelope boundary under administrative controls and by adding a new action for one or more inoperable trains of CREMAFS due to an inoperable control room envelope boundary.

The NRC previously approved similar changes that were based on TSTF-287. Amendments 187 and 180 for Catawba Nuclear Station [Reference 4] revised the TS to establish actions to be taken for inoperable ventilation systems due to a degraded ventilation area pressure boundary and to allow intermittent opening of ventilation boundaries under administrative controls. Similar changes were approved for Shearon Harris Nuclear station in Amendment 102 [Reference 5].

The proposed changes are similar to existing provisions in NUREG-1431 for TS 3.7.12, Emergency Core Cooling System Pump Room Exhaust Air Cleanup System, TS 3.7.13, Fuel Building Air Cleanup System; and TS 3.7.14, Penetration Room Exhaust Air Cleanup System. Each of these TS has a note that modifies the LCO to permit intermittent opening of the ventilation system boundary under administrative controls and an action with a 24-hour completion time for two inoperable ventilation trains due to an inoperable ventilation area boundary.

Conclusion

The proposed change would allow 24 hours to restore an inoperable containment enclosure boundary before requiring the unit to shutdown due to two inoperable trains of CEEACS and also allow intermittent opening of the containment enclosure boundary under administrative controls. Written procedures would be available to provide appropriate, preplanned compensatory measures consistent with the intent, as applicable, of GDC 19, 60, 64 and 10 CFR 50.67 to protect plant personnel from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and physical security. These procedures would be available for intentional and unintentional entry into the new proposed action requirement. The proposed 24 hour completion time is reasonable based on the low probability of a design basis accident occurring during this time period and the use of preplanned compensatory measures. The administrative controls that permit intermittent opening of the containment enclosure boundary would be described in procedures and would include stationing a dedicated individual at the opening who is in continuous communication with operators in the control room. This individual would have a method to rapidly close the opening and to restore the containment enclosure boundary to a condition equivalent to the design condition when a need for containment enclosure boundary isolation is indicated.

Based on the low probability of an event occurring during the 24 hours that the containment enclosure boundary is not intact and the availability of compensatory measures, NextEra concludes that this change is acceptable.

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

10 CFR 50.36, Technical Specifications - requires that the TS include limiting conditions for operation, which are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.

10 CFR 50.67, Accident Source Term - establishes limits on the accident source term used in design basis radiological consequence analyses with regard to radiation exposure to members of the public and to control room occupants.

General Design Criterion 16, Containment design - Reactor containment and associated systems shall be provided to establish an essentially leak-tight barrier against the uncontrolled release of radioactivity to the environment and to assure that the containment design conditions important to safety are not exceeded for as long as postulated accident conditions require.

General Design Criterion 19--Control room - A control room shall be provided from which actions can be taken to operate the nuclear power unit safely under normal conditions and to maintain it in a safe condition under accident conditions, including loss-of-coolant accidents. Adequate radiation protection shall be provided to permit access and occupancy of the control room under accident conditions without personnel receiving radiation exposures in excess of 5 rem whole body, or its equivalent to any part of the body, for the duration of the accident.

General Design Criterion 60 - Control of releases of radioactive materials to the environment - The nuclear power unit design shall include means to control suitably the release of radioactive materials in gaseous and liquid effluents and to handle radioactive solid wastes produced during normal reactor operation, including anticipated operational occurrences.

General Design Criterion 64--Monitoring radioactivity release - Means shall be provided for monitoring the reactor containment atmosphere, spaces containing components for recirculation of loss-of-coolant accident fluids, effluent discharge paths, and the plant environs for radioactivity that may be released from normal operations, including anticipated operational occurrences, and from postulated accidents.

Conclusion

Containment enclosure building integrity ensures that the release of radioactive materials from the primary containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with operation of the CEEACS limits the site boundary radiation doses to within the dose guideline values of 10 CFR 50.67 during accident conditions. The proposed changes do not impact the ability of an operable CEEACS to perform its intended function. During times when the containment enclosure boundary is open, administrative controls will ensure that the opening will be quickly sealed to maintain the validity of the licensing basis analyses of accident consequences. In the case that the containment enclosure boundary is inoperable, the proposed new action requirement imposes a 24-hour time limit to restore the inoperable boundary. Based on the availability of compensatory measures and the low probability of an accident occurring during the 24 hour period that that the CREACS trains are inoperable, NextEra concludes the proposed change is acceptable and complies with applicable regulatory requirements.

4.2 Significant Hazards Consideration

No Significant Hazards Consideration

In accordance with 10 CFR 50.92, NextEra Energy Seabrook has concluded that the proposed change does not involve a significant hazards consideration (SHC). The basis for the conclusion that the proposed changes do not involve a SHC is as follows:

1. *The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.*

   The proposed change does not impact the physical function of plant structures, systems, or components (SSCs) or the manner in which SSCs perform their design function. The proposed changes neither adversely affect accident initiators or precursors, nor alter design assumptions. The proposed changes do not alter or prevent the ability of operable structures, systems, and components (SSCs) to perform their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits.

   This change is a revision to the technical specifications (TS) for the containment enclosure emergency air cleanup system (CEEACS), which is a mitigation system designed to prevent uncontrolled releases of radioactivity into the environment. The change would allow intermittent opening of the containment enclosure boundary under administrative controls. These controls would ensure that the opening will be quickly sealed to maintain the validity of the licensing basis analyses of accident consequences. The proposed change adds a new action requirement that would allow 24 hours to restore the containment enclosure boundary in the event that both trains of the CEEACS are inoperable due to an inoperable containment enclosure boundary. The proposed 24 hour completion time is reasonable based on the low probability of a design basis accident occurring during this time period and the use of preplanned compensatory measures. The CEEACS is not an initiator or precursor to any accident previously evaluated. Therefore, the probability of any accident previously evaluated is not increased.

2. *The proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.*

   The proposed changes will not impact the accident analysis. The changes will not alter the requirements of the CEEACS or its function during accident conditions, and no new or different accidents result from the proposed changes to the TS. The changes do not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a

significant change in the method of plant operation. The changes do not alter assumptions made in the safety analysis. Therefore, this request does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. *The proposed changes do not involve a significant reduction in the margin of safety.*

   Margin of safety is associated with confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant system pressure boundary, and containment structure) to limit the level of radiation dose to the public. The proposed changes do not involve a significant change in the method of plant operation, and no accident analyses will be affected by the proposed changes. Additionally, the proposed changes will not relax any criteria used to establish safety limits, will not relax any safety system settings, and will not relax the bases for any limiting conditions for operation. The safety analysis acceptance criteria are not affected by this change. The proposed change will not result in plant operation in a configuration outside the design basis. The proposed change does not adversely affect systems that respond to safely shutdown the plant and to maintain the plant in a safe shutdown condition. Therefore, these proposed changes do not involve a significant reduction in a margin of safety.

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

4.3 Conclusions

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.

5.0 ENVIRONMENTAL CONSIDERATION

NextEra has evaluated the proposed amendment for environmental considerations. The review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards

consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendments meet the eligibility criterion for categorical exclusion set for in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment needs to be prepared in connection with the proposed amendment.

6.0 REFERENCES

1. TSTF-287-A, Revision 5, Ventilation System Envelope Allowed Outage Time, March 16, 2000.

2. NUREG-1431, Revision 3, Improved Standard Technical Specifications for Westinghouse Plants.

3. NRC letter "Seabrook Station, Unit No. 1 – Issuance of Amendment Re: Control Room Habitability (TAC NO. MD6099)," July 30, 2008. (ADAMS Accession No. ML 081910227)

4. NRC letter "Catawba Nuclear Station, Units 1 and 2 Re: Issuance of Amendments (TAC NOS. MA8888 and MA8889)," September 5, 2000. (ADAMS Accession No. ML 003747877)

5. NRC letter "Shearon Harris Nuclear Power Plant, Unit 1 – Issuance of Amendment Regarding Emergency Ventilation Systems (TAC NO. MA8620)," October 30, 2000. (ADAMS Accession No. ML 003766049)

Attachment 2

Mark-up of the Technical Specifications (TS)

Refer to the attached markup of the TS showing the proposed changes. The attached markups reflect the currently issued version of the TS and Facility Operating License. At the time of submittal, the Facility Operating License was revised through Amendment No. 123.

Listed below are the license amendment requests that are awaiting NRC approval and may impact the currently issued version of the Facility Operating License affected by this LAR.

LAR	Title	NextEra Energy Seabrook Letter	Date Submitted
LAR 09-03	Revision to Technical Specification 6.7.6.k, "Steam Generator (SG) Program," for Permanent Alternate Repair Criteria (H*)	SBK-L-09118	05/28/2009
LAR 09-04	Amendment to the Facility Operating License and Submittal of the Seabrook Station Cyber Security Plan	SBK-L-09218	11/19/2009
LAR 10-01	Operations Manager Qualification Requirements	SBK-L-10010	03/16/2010

The following TS pages are included in the attached markup:

Technical Specification	Title	Page
TS 3.6.5.1	Containment Enclosure Emergency Air Cleanup System	3/4 6-21

INSERT 1

----------NOTE----------

The containment enclosure boundary may be opened intermittently under administrative control

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INSERT 2

b. With both Containment Enclosure Emergency Air Cleanup System trains inoperable due to an inoperable containment enclosure boundary, restore the boundary to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

CONTAINMENT SYSTEMS

3/4.6.5 CONTAINMENT ENCLOSURE BUILDING

CONTAINMENT ENCLOSURE EMERGENCY AIR CLEANUP SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.5.1 Two independent Containment Enclosure Emergency Air Cleanup Systems shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one Containment Enclosure Emergency Air Cleanup System inoperable, restore the inoperable system to OPERABLE status within 7 days # or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.1 Each Containment Enclosure Emergency Air Cleanup System shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 15 minutes;

b. At least once per 18 months or (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Verifying that the cleanup system satisfies the in-place penetration leakage testing acceptance criteria of less than 0.05% and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978*, and the system flow rate is 2100 cfm ± 10%;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, by showing a methyl iodide penetration of less than or

The 7-day allowed outage time which was entered on June 4, 2006 at 0602 hours, may be extended one time by an additional 7 days to complete repair and testing on the Containment Enclosure Ventilation Area return fan EAH-FN-31B.

* ANSI N510-1980 shall be used in place of ANSI N510-1975 referenced in Regulatory Guide 1.52, Rev. 2, March 1978.

This page contains No changes. Provided for information only

4.6.5.1b.2 (Continued)

equal to 5% when tested at a temperature of 30°C, at a relative humidity of 95% and a face velocity of 46 fpm in accordance with ASTM-D3803-1989; and

3) Verifying a system flow rate of 2100 cfm ± 10% during system operation when tested in accordance with ANSI N510-1980.

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, by showing a methyl iodide penetration of less than or equal to 5% when tested at a temperature of 30°C, at a relative humidity of 95% and a face velocity of 46 fpm in accordance with ASTM-D3803-1989.

d. At least once per 18 months by:

1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 2100 cfm ± 10%,

2) Verifying that the system starts on a Safety Injection test signal,

3) Verifying that the filter cross connect valves can be manually opened, and

4) Verifying that each system produces a negative pressure of greater than or equal to 0.25 inch Water Gauge in the annulus within 4 minutes after a start signal.

e. After each complete or partial replacement of a high efficiency particulate air (HEPA) filter bank, by verifying that the cleanup system satisfies the in-place penetration leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a dioctyl phthalate (DOP) test aerosol while operating the system at a flow rate of 2100 cfm ± 10%; and

Attachment 3

Mark-up of the Technical Specification Bases

BASES INSERT

3/4.6.5 CONTAINMENT ENCLOSURE BUILDING

3/4.6.5.1 CONTAINMENT ENCLOSURE EMERGENCY AIR CLEANUP SYSTEM

The OPERABILITY of the Containment Enclosure Emergency Air Cleanup System ensures that during LOCA conditions containment vessel leakage into the annulus, and radioactive materials leaking from engineered safety features equipment, from the electrical penetration areas, and from the mechanical penetration tunnel, will be filtered through the HEPA filters and charcoal adsorber trains prior to discharge to the atmosphere.

The EAH system components associated with this Technical Specification include those dampers, fans, filters, etc., and required ductwork and instrumentation that evacuate or isolate areas, route air, and filter the exhaust prior to discharge to the environment. Included among these components are:

- Containment enclosure cooling fans (EAH-FN-5A and 5B)
- Containment enclosure ventilation area return fans (EAH-FN-31A and 31B)
- Containment enclosure emergency exhaust fans (EAH-FN-4A and 4B)
- Charging pump room return air fans (EAH-FN-180A and 180B)
- Containment enclosure emergency clean up filters (EAH-F-9 and F-69)
- PAB / CEVA isolation dampers (PAH-DP-35A, 36A, 35B, and 36B)

The EAH system also provides cooling to the following areas and equipment during normal and emergency operation: containment enclosure ventilation equipment area, the charging pumps, safety injection pumps, residual heat removal pumps, containment spray pumps, and the mechanical penetration area. However, the EAH cooling function is not associated with this Technical Specification, but rather is controlled under Technical Requirement 24, Area Temperature Monitoring.

3/4.6.5.2 CONTAINMENT ENCLOSURE BUILDING INTEGRITY

CONTAINMENT ENCLOSURE BUILDING INTEGRITY ensures that the release of radioactive materials from the primary containment atmosphere will be restricted to those leakage paths and associated leak rates assumed in the safety analyses. This restriction, in conjunction with operation of the Containment Enclosure Emergency Air Cleanup System, will limit the SITE BOUNDARY radiation doses to within the dose guideline values of 10 CFR 50.67 during accident conditions.

Verifying that the enclosure boundary is intact, or has integrity, involves confirming that the doors are closed except during normal transit entry and exit. Additionally, pressure boundary seals must also be intact to maintain the integrity of the containment enclosure.

BASES INSERT

3/4.6.5.1 CONTAINMENT ENCLOSURE EMERGENCY AIR CLEANUP SYSTEM (CEEACS)

BACKGROUND

The CEEACS is designed to maintain a negative pressure of greater than or equal to 0.25 inches of water, following a design basis accident, in the annular region defined by the containment structure and the containment enclosure, as well as in the additional building volumes associated with the electrical penetration areas, mechanical piping penetration area and engineered safeguard equipment cubicles. Any fission products leaking from these systems and from the primary containment will be retained in these areas and eventually processed through the filters.

The filter system consists of redundant filter trains, fans, dampers and controls and a common ductwork system. The air flow required to maintain a negative pressure in the Containment Enclosure Building is passed through demisters, which also function as prefilters, and through HEPA filters located both upstream and downstream of the carbon filter prior to exhausting through the plant vent. A ductwork cross-connection is provided between the two filter trains at a point between the downstream HEPA filter and the fan inlet. Should the operating fan fail, this cross-connection will insure a continued air flow by manual startup of the redundant fan. Each redundant filter train is complete, separate and independent from both electrical and control standpoints. Each filter train fan is supplied power from an independent ESF power train source.

APPLICABLE SAFETY ANALYSIS

In the event of an accident requiring CEEACS operation, both of the redundant filter train fans will be automatically started on a "T" signal. One train of the Containment Enclosure Emergency Cleanup System is required to be able to draw down the entire Containment Enclosure Area to a negative differential pressure of 0.25 inches of water. This differential pressure is required to be established between all areas that comprise the Containment Enclosure Area and their external surroundings.

Analysis has shown that one containment enclosure exhaust filter fan is capable of drawing down the entire containment enclosure area to the design negative differential pressure in less than 8 minutes after the initiation of a design basis LOCA. This analysis takes into account the engineered safety feature actuation system signal delay time, delay time for the diesel generator to supply power in the event of a simultaneous loss of offsite power, and the time for the filter fan to come up to speed.

LCO

One train of the CEEACS is required to maintain a negative pressure within the containment enclosure following an accident, to remove and retain airborne particulates and radioactive iodine, and to exhaust filtered air to the unit plant vent. Two trains of the CEEACS must be OPERABLE to ensure that at least one train will operate, assuming that the other train is disabled by a single active failure.

The CEEACS also provides cooling to the following areas and equipment during normal and emergency operation: containment enclosure ventilation equipment area, the charging pumps, safety injection pumps, residual heat removal pumps, containment spray pumps, and the mechanical penetration area. However, the cooling function is not associated with this TS, but rather is controlled under Technical Requirement 24, Area Temperature Monitoring.

The components associated with this TS include those dampers, fans, filters, etc., and required ductwork and instrumentation that evacuate or isolate areas, route air, and filter the exhaust prior to discharge to the environment. Included among these components are:

- Containment enclosure cooling fans (EAH-FN-5A and 5B)
- Containment enclosure ventilation area return fans (EAH-FN-31A and 31B)
- Containment enclosure emergency exhaust fans (EAH-FN-4A and 4B)
- Charging pump room return air fans (EAH-FN-180A and 180B)
- Containment enclosure emergency clean up filters (EAH-F-9 and F-69)
- PAB / CEVA isolation dampers (PAH-DP-35A, 36A, 35B, and 36B)

The LCO is modified by a note allowing the containment enclosure boundary to be opened intermittently under administrative controls. For entry and exit through doors, administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for containment enclosure boundary isolation is indicated.

ACTIONS

a.

Action a requires that with one CEEACS train inoperable, the inoperable train must be restored to OPERABLE status within 7 days. The 7 day completion time considers the availability of the OPERABLE redundant CEEACS train and the low probability of a design basis accident occurring during this period. If the CEEACS train cannot be restored to OPERABLE status within the 7 days, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at

least MODE 3 within 6 hours and to MODE 5 within the following 30 hours. The completion times are reasonable, based on operating experience, to reach the required plant conditions from full power conditions in an orderly manner and without challenging plant.

b.

If the containment enclosure boundary is inoperable, the CEEACS trains cannot perform their intended functions. Actions must be taken to restore an OPERABLE containment enclosure boundary within 24 hours. During the period that the containment enclosure boundary is inoperable, appropriate compensatory measures consistent with the intent, as applicable, of GDC 19, 60, 64, and 10 CFR 50.67 should be utilized to protect plant personnel from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature, relative humidity, and physical security. Preplanned measures should be available to address these concerns for intentional and unintentional entry into the condition. The 24 hour completion time is reasonable based on the low probability of a design basis accident occurring during this time period, and the use of compensatory measures. The 24 hour completion time is a typically reasonable time to diagnose, plan, repair, and test most problems with the containment enclosure boundary.

If the containment enclosure boundary cannot be restored to OPERABLE status within 24 hours, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours and in MODE 5 within the following 30 hours. The 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.

Attachment 4

Regulatory Commitments

The following table identifies those actions committed to by NextEra Energy Seabrook, LLC Seabrook in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to Mr. Michael O'Keefe, Licensing Manager.

Regulatory Commitment	**Due Date / Event**
NextEra will have written procedures available describing compensatory measures to be taken in the event of an intentional or unintentional entry into TS action 3.6.5.1.b for two inoperable trains of CEEACS due to an inoperable containment enclosure boundary.	Upon implementation of the changes requested in LAR 10-02