



July 2, 2012

10 CFR 50.90

SBK-L-12124
Docket No. 50-443

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

Seabrook Station

Response to Request for Additional Information Regarding License Amendment Request 10-02,
"Application for Change to the Technical Specifications for the Containment Enclosure
Emergency Air Cleanup System"

References:

1. NextEra Energy Seabrook, LLC letter SBK-L-10074, "Application for Change to the Technical Specifications for the Containment Enclosure Emergency Air Cleanup System," May 14, 2010
2. NextEra Energy Seabrook, LLC letter SBK-L-10143, Response to Request for Additional Information Regarding License Amendment Request (LAR) 10-02, "Application for Change to the Technical Specifications for the Containment Enclosure Emergency Air Cleanup System," August 24, 2010
3. NextEra Energy Seabrook, LLC letter SBK-L-11184, Response to Request for Additional Information Regarding License Amendment Request 10-02, Regarding the Containment Enclosure Emergency Air Cleanup System, September 16, 2011
4. NextEra Energy Seabrook, LLC letter SBK-L-12054, Response to Request for Additional Information Regarding License Amendment Request 10-02, "Application for Change to the Technical Specifications for the Containment Enclosure Emergency Air Cleanup System," March 15, 2012
5. NRC letter "Seabrook Station, Unit 1 – Request for Additional Information Regarding the Addition of Action Statement to Limiting Condition for Operation 3.6.5.1, "Containment Enclosure Emergency Air Cleanup System" (TAC No. ME3988)," June 11, 2012

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In Reference 1 and supplemented by References 2, 3, and 4, NextEra Energy Seabrook, LLC (NextEra) submitted a request for an amendment to the Technical Specifications (TS) for Seabrook Station. The proposed amendment would change TS Surveillance Requirement (SR) 4.6.5.1.d.4 so that it will demonstrate integrity of the containment enclosure building rather than operability of the containment enclosure emergency air cleanup system. The amendment relocates SR 4.6.5.1.d.4 with modifications to new SR 4.6.5.2.b. Additionally, the amendment makes some minor wording changes, deletes a definition, and removes an expired footnote.

In Reference 5, the NRC requested additional information in order to complete its review of the amendment request. The Enclosure to this letter contains NextEra's response to the request for additional information. Attachment 1 to the Enclosure provides a revised markup of the TS showing the proposed changes, which replaces the markup of TS 3.6.5.2 provided in Reference 4. Attachment 2 to the Enclosure includes the retyped page for TS 3.6.5.2. Attachment 3 to the Enclosure contains revised TS Bases that replace the proposed Bases for TS 3.6.5.2 provided in Reference 4. The Bases are provided for information and will be implemented in accordance with TS 6.7.6.j, TS Bases Control Program, upon implementation of the license amendment.

The modification to the proposed change does not alter the conclusion in Reference 1 that the proposed change does not involve a significant hazard consideration pursuant to 10 CFR 50.92. A copy of this letter has been forwarded to the New Hampshire State Liaison Officer pursuant to 10 CFR 50.91(b).

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



Kevin T. Walsh
Site Vice President

Enclosure

cc: NRC Region I Administrator
J. G. Lamb, NRC Project Manager, Project Directorate I-2
W. J. Raymond, NRC Senior Resident Inspector

United States Nuclear Regulatory Commission
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AFFIDAVIT

SEABROOK STATION UNIT 1

Facility Operating License NPF-86
Docket No. 50-443

Response to Request for Additional Information Regarding License Amendment Request 10-02, "Application for Change to the Technical Specifications for the Containment Enclosure Emergency Air Cleanup System"

I, Kevin T. Walsh, Site Vice President of NextEra Energy Seabrook, LLC hereby affirm that the information and statements contained within this response to request for additional information regarding License Amendment Request 10-02 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

2nd day of July, 2012

Victoria S. Brown

Notary Public

A handwritten signature in black ink, appearing to read "Kevin T. Walsh".

Kevin T. Walsh
Site Vice President



Enclosure

Response to Request for Additional Information

Request for Additional Information (RAI)

Seabrook CEB Integrity TS 3.6.5.2 limiting condition for operation requires that CEB integrity shall be maintained during Modes 1, 2, 3 and 4. TS 3.6.5.2 includes an Action requirement to restore CEB integrity within 24 hours or be in Hot Standby within the next 6 hours and in Cold Shutdown within the following 30 hours when CEB integrity is not met for any reason. SR 4.6.5.2 requires that "Containment enclosure building integrity shall be demonstrated: a. At least once per 31 days by verifying that the door in each access opening is closed, except when the access opening is being used for normal transit entry or exit." Thus, the proposed SR 4.6.5.2 would not require entry into the TS 3.6.5.2 Action for opening access doors for normal transit entry or exit. While the Seabrook action requirements to restore CEB integrity within 24 hours of discovery of not having integrity for any reason (emphasis added) is consistent with the NRC staff position for enclosure building integrity not being met per NUREG-1431, Revision 4, *Standard Technical Specifications for Westinghouse Plants*, the comparison does not apply because the Seabrook access opening design departs from the design assumed by Standard Technical Specifications (STS). Seabrook CEB access openings are designed with a single door at each entry point whereas the STS design presumes an airlock with two doors at each entry point. Routine preventative maintenance (PM) on the Seabrook CEB doors, therefore, represents a loss of safety function, whereas, in the design modeled in the STS, there is no loss of safety function for the same maintenance activity. The NRC staff concern is that 24 hour allowance to restore CEB integrity (for any reason) is not an appropriate limit for operating Seabrook, because Seabrook TS 3.6.5.2 Actions do not address the additional CEB loss of safety function due to PM on door seals and door hardware. Routine maintenance on access opening doors is accomplished for the STS design without rendering CEB integrity not being met. Please revise Seabrook TS 3.6.5.2 Actions to provide appropriate limits that address the NRC staff concern.

Response to RAI

Change to Proposed Actions

In response to the NRC staff's concern that a 24-hour allowance to restore containment enclosure building integrity is not an appropriate limit when performing maintenance on containment enclosure boundary doors, NextEra proposes to revise the Actions of TS 3.6.5.2 as shown below.

ACTION:

- a. Without containment enclosure building integrity due to performing preventative maintenance on the seals or hardware for one access opening door, restore containment enclosure building integrity within 8 hours. Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. Without containment enclosure building integrity for reasons other than performing preventative maintenance on the seals or hardware for one access opening door, restore containment enclosure building integrity within 24 hours. Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Enclosure

Response to Request for Additional Information

Action a would apply when containment enclosure building integrity is not maintained due to performing preventative maintenance on the seals or hardware for one containment enclosure boundary door. Preventative maintenance is an activity that preserves operability of the door or prevents degradation that could eventually cause a door to become inoperable. For example, a worn or out-of-adjustment door seal may not render a door inoperable; however, if allowed to continue, the degradation could result in the inability to maintain containment enclosure building integrity. Preventative maintenance would be the activity that corrects the degradation before it leads to a loss of containment enclosure building integrity.

Containment enclosure building integrity must be restored within 8 hours following entry into Action a. The duration for completing maintenance activities involving the containment enclosure boundary doors ranges from two to five hours. Therefore, eight hours provides adequate time to perform preventative maintenance on the containment enclosure boundary doors and is a reasonable time considering the low probability of a DBA occurring during this time.

Action b applies when containment enclosure building integrity is not maintained for reasons other than performing preventative maintenance on the seals or hardware for one containment enclosure boundary door. Such a condition could be the discovery of an opening in the containment enclosure boundary that exceeds the maximum allowable opening size. This could include a degraded or missing pressure boundary seal or a degraded containment enclosure boundary door. Corrective maintenance would be required to repair the degraded condition to restore containment enclosure building integrity.

Action b requires that containment building enclosure integrity be restored within 24 hours. Twenty-four hours is a reasonable completion time considering the limited leakage design of containment and the low probability of a DBA occurring during this time.

Addition of New Note

The proposed change to TS 3.6.5.2 is revised with the addition of a note that states entry into the Actions is not required when an access opening is being used for normal transit entry and exit. This provision provides an exception to TS 3.0.1 when containment enclosure integrity is not maintained while an access door is open for normal transit. This note is consistent with SR 4.6.5.2.a, which requires each access opening door to be closed except during normal transit entry and exit.

Attachment 1

Markup of TS 3.6.5.2

CONTAINMENT SYSTEMS

CONTAINMENT ENCLOSURE BUILDING

CONTAINMENT ENCLOSURE BUILDING INTEGRITY

LIMITING CONDITION FOR OPERATION

Containment enclosure building integrity

3.6.5.2 ~~CONTAINMENT ENCLOSURE BUILDING INTEGRITY~~ shall be maintained.

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

ACTION:

INSERT NOTE

INSERT ACTIONS

Without ~~CONTAINMENT ENCLOSURE BUILDING INTEGRITY~~, restore ~~CONTAINMENT ENCLOSURE BUILDING INTEGRITY~~ within 24 hours or be in at least ~~HOT STANDBY~~ within the next 6 hours and in ~~COLD SHUTDOWN~~ within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.2 ~~CONTAINMENT ENCLOSURE BUILDING INTEGRITY~~ shall be demonstrated at least once per 31 days by verifying that the door in each access opening is closed except when the access opening is being used for normal transit entry and exit.

a. At ↓, and

b. At least once per 36 months on a STAGGERED TEST BASIS by verifying the containment enclosure building can be maintained at a negative pressure greater than or equal to 0.25 inch water gauge by one train of the containment enclosure emergency air cleanup system within 4 minutes after a start signal.

INSERT NOTE

-----NOTE-----

Entry into ACTIONS is not required when the access opening is being used for normal transit entry or exit.

INSERT ACTIONS

- a. Without containment enclosure building integrity due to performing preventative maintenance on the seals or hardware for one access opening door, restore containment enclosure building integrity within 8 hours. Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

- b. Without containment enclosure building integrity for reasons other than performing preventative maintenance on the seals or hardware for one access opening door, restore containment enclosure building integrity within 24 hours. Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

Attachment 2

Retyped Page for TS 3.6.5.2

CONTAINMENT SYSTEMS

CONTAINMENT ENCLOSURE BUILDING

CONTAINMENT ENCLOSURE BUILDING INTEGRITY

LIMITING CONDITION FOR OPERATION

3.6.5.2 Containment enclosure building integrity shall be maintained.

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

-----NOTE-----

Entry into ACTIONS is not required when the access opening is being used for normal transit entry or exit.

ACTION:

- a. Without containment enclosure building integrity due to performing preventative maintenance on the seals or hardware for one access opening door, restore containment enclosure building integrity within 8 hours. Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. Without containment enclosure building integrity for reasons other than performing preventative maintenance on the seals or hardware for one access opening door, restore containment enclosure building integrity within 24 hours. Otherwise be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.5.2 Containment enclosure building integrity shall be demonstrated:

- a. At least once per 31 days by verifying that the door in each access opening is closed except when the access opening is being used for normal transit entry and exit, and
- b. At least once per 36 months on a STAGGERED TEST BASIS by verifying the containment enclosure building can be maintained at a negative pressure greater than or equal to 0.25 inch water gauge by one train of the containment enclosure emergency air cleanup system within 4 minutes after a start signal.

Attachment 3

Proposed Bases for TS 3.6.5.2

3/4.6.5.2 CONTAINMENT ENCLOSURE BUILDING INTEGRITY

BACKGROUND

Located outside the containment building and having a similar geometry is the containment enclosure building. The enclosure building is a reinforced concrete right cylindrical structure with a hemispherical dome. This structure provides leak protection for the containment and protects it from certain loads. The space between the containment and the enclosure building is maintained at a slight negative pressure during accident conditions. All joints and penetrations are sealed to ensure air tightness.

APPLICABLE SAFETY ANALYSES

The function of the containment enclosure building is to collect any fission products which could leak from the primary containment structure into the containment enclosure and contiguous areas following a LOCA. The containment enclosure provides a low leakage rate barrier between the containment and the environment to control all leakage from the containment boundary. 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 (CEEACS), will limit radiation dose to within the dose guideline values of 10 CFR 50.67 during accident conditions.

The containment enclosure building satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii).

LCO

Containment enclosure building integrity must be maintained to limit the release of radioactive materials from the primary containment atmosphere to those leakage paths and associated leak rates assumed in the safety analyses. Containment enclosure building integrity exists when (1) each door in each access opening is closed except when the access opening is being used for normal transit entry and exit, (2) the sealing mechanism associated with each penetration (e.g., welds, bellows, or O-rings) is OPERABLE, and (3) the containment enclosure building is capable of maintaining the required negative pressure.

APPLICABILITY

Maintaining containment enclosure building integrity prevents leakage of radioactive material from the enclosure building. Radioactive material may enter the containment enclosure building from the containment following a DBA. Therefore, containment enclosure integrity is required in MODES 1, 2, 3, and 4 when a DBA could release radioactive material to the containment atmosphere. In MODES 5 and 6, the probability and consequences of these events are low due to the Reactor Coolant System temperature and pressure limitations in these MODES. Therefore, containment enclosure building integrity is not required in MODE 5 or 6.

ACTIONS

A note states that entry into the Actions is not required when an access opening (containment enclosure boundary door) is being used for normal transit entry and exit. This provision provides an exception to TS 3.0.1 when containment enclosure integrity is not maintained while an

access door is open for normal transit. This note is consistent with SR 4.6.5.2.a, which requires each containment enclosure boundary door to be closed except during normal transit entry and exit.

Action a.

Action a applies when containment enclosure building integrity cannot be maintained due to performing preventative maintenance on the seals or hardware for one containment enclosure boundary door. Preventative maintenance is an activity that preserves operability of the door or prevents degradation that could eventually cause a door to become inoperable. For example, a worn or out-of-adjustment door seal may not render a door inoperable; however, if allowed to continue, the degradation could result in the inability to maintain containment enclosure building integrity. Preventative maintenance would be the activity that corrects the degradation before it leads to a loss of containment enclosure building integrity. When performing preventative maintenance on a containment enclosure door, if a condition is discovered that renders the door inoperable as a containment enclosure boundary, Action b applies to correcting the condition to restore containment enclosure building integrity.

Containment enclosure building integrity must be restored within 8 hours following entry into the action for performing preventative maintenance. Eight hours provides adequate time to perform preventative maintenance on the containment enclosure boundary doors and is a reasonable time considering the low probability of a DBA occurring during this time.

Action b.

Action b applies when containment enclosure building integrity is not maintained for reasons other than performing preventative maintenance on the seals or hardware for one containment enclosure boundary door. Such a condition could be the discovery of an opening in the containment enclosure boundary that exceeds the maximum allowable opening size. This could include a degraded or missing pressure boundary seal or a degraded containment enclosure boundary door. Corrective maintenance would be required to repair the degraded condition to restore containment enclosure building integrity.

Containment building enclosure integrity must be restored within 24 hours. Twentyfour hours is a reasonable completion time considering the limited leakage design of containment and the low probability of a DBA occurring during this time.

Inoperability of the containment enclosure building does not render the CEEACS inoperable. Therefore, the Action of TS 3.6.5.1 (CEEACS) is not required to be entered solely due to a failure to maintain containment enclosure building integrity.

SURVEILLANCE REQUIREMENTS

SR 4.6.5.2.a

The containment enclosure boundary doors are normally maintained closed except when the access opening is being used for entry and exit. Verifying containment enclosure building integrity involves confirming that the doors are closed except during normal transit entry and exit. Normal transit includes opening doors as necessary to permit the movement of people and equipment through the doorway. This may also include opening doors to test actuation of door alarms. Propping open a door and obstructing the doorway with equipment, cables, hoses, etc., such that it cannot be immediately closed is not normal transit entry and exit. Additionally,

pressure boundary seals must also be intact to maintain the integrity of the containment enclosure.

SR 4.6.5.2.b

The CEEACS produces a negative pressure in the containment enclosure building. SR 4.6.5.2 verifies that the building can be drawn down to a negative pressure greater than or equal to 0.25 inch Water Gauge using one train of CEEACS within four minutes after a start signal. The time limit ensures the building is at its design negative pressure in less than eight minutes following the initiation of a LOCA.

Since this SR is a containment enclosure building boundary integrity test, it does not need to be performed with each CEEACS train. The CEEACS train used for this SR is staggered to ensure that either train will perform the test. The primary purpose of this SR is to ensure containment enclosure building integrity. The secondary purpose of this SR is to ensure that the CEEACS train used for the test functions as designed. Inoperability of the CEEACS train does not necessarily constitute a failure of this SR relative to containment enclosure building integrity.