



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 5, 2011

Mr. Paul Freeman  
Site Vice President  
c/o Mr. Michael O'Keefe  
NextEra Energy Seabrook, LLC  
P.O. Box 300  
Seabrook, NH 03874

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE REVIEW OF  
THE SEABROOK STATION LICENSE RENEWAL APPLICATION  
(TAC NO. ME4028)

Dear Mr. Freeman:

By letter dated May 25, 2010, NextEra Energy Seabrook, LLC, submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew Operating License NPF-86 for Seabrook Station, Unit 1, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

The request for additional information was discussed with Mr. Rick Cliche, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-1427 or by e-mail at [richard.plasse@nrc.gov](mailto:richard.plasse@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Plasse".

Richard Plasse, Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:  
As stated

cc w/encl: Distribution via Listserv

Seabrook Station  
License Renewal Application  
Request for Additional Information Set 8  
Scoping

**RAI 2.1-1**

**Background:**

10 CFR 54.4, "Scope," section (a)(2), requires nonsafety-related systems, structures and components (SSCs) to be included within the scope of license renewal, if the failure of the nonsafety-related SSC could prevent satisfactory accomplishment functions that are the basis for the inclusion of safety-related SSCs within the scope of license renewal.

**Issue:**

Section 2.1.2.2.3, "Non-Safety Related SSCs In Spatial Proximity Of Safety Related SSCs," of the license renewal application (LRA) states:

The turbine building contains components associated with the reactor protection and engineered safety features actuation system which have been classified as safety related in the plant equipment database. There are no other safety related SSCs in the turbine building. These components do not perform a safety related function, as defined in 10 CFR 54.4(a)(1), and are not credited in the Seabrook Station accident analysis. The CLB does not credit operation of these components during or after a seismic event and thus seismic design or qualification is not required. Therefore, there are no components in the turbine building that are considered to be in scope for license renewal as defined in 10 CFR 54.4(a)(2).

During the scoping and screening methodology audit, performed on-site September 20-23, 2010, the U.S. Nuclear Regulatory Commission (NRC or the staff) reviewed the LRA and the applicant's 10 CFR 54.4(a) implementing documents. The staff determined that the applicant had identified and evaluated safety-related components located in the turbine building and that the applicant had concluded that the nonsafety-related SSCs in the proximity of, or attached to, the safety-related SSCs were not required to be included within the scope of license renewal.

**Request:**

The staff requests that the applicant provide the following information:

1. Identify SSCs located in the turbine building that are classified as safety-related in the plant equipment database that were not included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1).
2. Provide the details of the evaluation and the basis for the conclusion that SSCs, located in the turbine building that are classified as safety-related in plant equipment database, do not have an intended function that requires the SSCs to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(1).

ENCLOSURE

3. Provide the details of the evaluation and basis for the conclusion that nonsafety-related SSCs, in the proximity of or attached to SSCs located in the turbine building and classified as safety-related in plant equipment database, are not required to be included within the scope of license in accordance with 10 CFR 54.4(a)(2).

Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs that were included within the scope of license renewal as a result of the reviews discussed in this request for additional information (RAI). List the structure and component types subject to aging management review (AMR), AMR results, and aging management programs, as applicable, to be credited for managing the identified aging effects.

### **RAI 2.1-2**

#### **Background:**

10 CFR 54.4, "Scope," section (a)(2), requires nonsafety-related systems, structures and components to be included within the scope of license renewal, if the failure of the nonsafety-related SSC could prevent satisfactory accomplishment of functions that are the basis for the inclusion of safety-related SSCs within the scope of license renewal.

#### **Issue:**

During the scoping and screening methodology audit, performed on-site September 20-23, 2010, the staff reviewed the LRA and the applicant's 10 CFR 54.4(a) implementing documents, relative to nonsafety-related drain lines. The staff determined that the applicant had reviewed nonsafety-related drain lines in the proximity of safety-related SSCs and that the applicant concluded that the drain lines were not required to be included within the scope of license renewal in accordance with 10 CFR 54.4(a)(2). The staff determined that license renewal drawings included a note applicable to drain lines from relief valves that stated, "Lines are not liquid filled so they have no license renewal intended function and are not in scope." The following license renewal drawings provide examples of where this note has been applied:

- DF-LR20196 (Locations D-3 and D-10)
- HW-LR20056 (Locations G-10 and G-12)
- HW-LR20051 (Locations C-9, D-9, E-9, F-9, D-12 and F-12)
- HW-LR20053 (Locations B-7, B-8, B-9, D-6 and E-6)

#### **Request:**

Provide the details of the evaluation and basis for the conclusion that nonsafety-related drain lines, in the proximity safety-related SSCs, will not be fluid filled during a design basis event, the failure of which could not prevent satisfactory accomplishment of the function of safety-related SSCs, and therefore are not required to be included within the scope of license in accordance with 10 CFR 54.4(a)(2).

Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs that were included within the scope of license renewal as a result of the reviews discussed in this RAI. List the structure and component types subject to an AMR, AMR results, and aging management programs, as applicable, to be credited for managing the identified aging effects.

### **RAI 2.1-3**

#### **Background:**

10 CFR 54.4, "Scope," section (a)(2), requires nonsafety-related systems, structures and components to be included within the scope of license renewal, if the failure of the nonsafety-related SSC could prevent satisfactory accomplishment of functions that are the basis for the inclusion of safety-related SSCs within the scope of license renewal.

#### **Issue:**

LRA Section 2.1.2.2.1, "Current Licensing Basis (CLB) Topics," states that "Internal flooding features are associated with the equipment and floor drainage system, including sumps, sump pumps, tanks, drains and piping, to remove water from potential internal flooding events, and fire protections activities for areas containing safety-related equipment. These design features are in-scope for license renewal."

During the scoping and screening methodology audit, performed on-site September 20-23, 2010, the staff reviewed the LRA and the applicant's 10 CFR 54.4(a) implementing documents, relative to nonsafety-related sump pumps. The staff noted that the license renewal implementing documents state that nonsafety-related sump pumps that are located in a sump are not included within the scope of license renewal if there is a cover over the sump preventing the pump from spatially interacting with safety-related equipment.

#### **Request:**

Provide the details of the evaluation and basis for the conclusion that the failure of nonsafety-related sump pumps, in the proximity safety-related SSCs could not prevent satisfactory accomplishment of the function of safety-related SSCs and, therefore, are not required to be included within the scope of license in accordance with 10 CFR 54.4(a)(2).

If credit is taken for mitigative features, provide the evaluation and basis for the conclusion that mitigative features are adequate to prevent the failure of nonsafety-related sump pumps from impacting the ability of safety-related SSCs to perform their intended functions and whether the mitigative features are included within the scope of license in accordance with 10 CFR 54.4(a)(2).

Describe any additional scoping evaluations performed to address the 10 CFR 54.4(a) criteria. List any additional SSCs that were included within the scope of license renewal as a result of the reviews discussed in this RAI. List the structure and component types subject to an AMR,

AMR results and aging management programs, as applicable, to be credited for managing the identified aging effects.

### **RAI 2.2-1**

#### **Background:**

LRA Section 2.1 describes the scoping and screening methodology used and the criteria for determining whether systems or components are in scope for license renewal. The results of the implementation of the scoping methodology are provided in Tables 2.2-1, "Systems and Structures within the Scope of License Renewal," and 2.2-2, "Systems and Structures Not in the Scope of License Renewal."

#### **Issue:**

The applicant indicates in LRA Section 2.3.3.45 that the waste process building is not in scope for license renewal. However, in LRA Section 2.4.5, the applicant states that the waste process building is in scope for Title 10 of the *Code of Federal Regulations* (10 CFR) 54.4(a)(1), 10 CFR 54.4(a)(2), and 10 CFR 54.4(a)(3) and is included in Table 2.2-1.

#### **Request:**

The staff requests that the applicant clarify if the waste process building is in scope of license renewal.

### **RAI 2.3-01**

#### **Background:**

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

#### **Issue:**

For the drawing locations identified in the table below, the continuation of piping in scope for license renewal could not be found.

License Renewal Application (LRA) Section / Drawing Number & Location	Continuation Issue
<b>2.3.3.2 Boron Recovery System</b>	
PID-1-CS-LR20724, F-12	A section of 10 CFR 54.4 (a)(2) piping (to Boron Recovery Primary Drain tank) continuing to drawing LR20854, location D-3.
<b>2.3.3.41 Valve Stem Leak-off System</b>	
PID-1-VSL LR20776, F-4 & F-11	Four vent pipelines in each location within scope of 10 CFR 54.4 (a)(2), without a continuation note provided.
<b>2.3.4.2 Auxiliary Steam Condensate System</b>	
PID-1-ASC-LR20912, D-7	1½" overflow line after the tank TK-280 ends without a continuation note provided.
<b>2.3.4.6 Feedwater System</b>	
PID-1-FW-LR20690, B-10	1" line after valve V403 ends without a continuation note provided.
PID-1-FW-LR20690, D-10	1" line after valve V402 ends without a continuation note provided.
PID-1-FW-LR20690, F-10	1" line after valve V401 ends without a continuation note provided.
PID-1-FW-LR20690, H-10	1" line after valve V400 ends without a continuation note provided.
<b>2.3.4.7 Main Steam System</b>	
PID-1-MS-LR20583, C-11	Main Steam Isolation valve actuator to valve V90 hydraulic inlet and outlet continuation drawings (FP23003 sht. 9 & 13) were not provided.

PID-1-MS-LR20583, E-11	Main Steam Isolation valve actuator to valve V88 hydraulic inlet and outlet continuation drawings (FP23003 sht. 9 & 13) were not provided.
PID-1-MS-LR20583, F-11	Main Steam Isolation valve actuator to valve V86 hydraulic inlet and outlet continuation drawings (FP23003 sht. 9 & 13) were not provided.
PID-1-MS-LR20583, H-11	Main Steam Isolation valve actuator to valve V92 hydraulic inlet and outlet continuation drawings (FP23003 sht. 9 & 13) were not provided.
<b>2.3.4.8 Steam Generator Blowdown System</b>	
PID-1-SB-LR20626, C-5	1" line after valve V76 ends without a continuation note provided.
PID-1-SB-LR20626, E-7	1" line after valve V77 ends without a continuation note provided.

Request:

The staff requests that the applicant provide sufficient information for the continuation issues identified above to permit the staff to review all portions of the systems within the license renewal boundary.

**RAI 2.3.3.2-01**

Background:

In LRA Section 2.1.2.2.2, the applicant states that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic anchor beyond the safety/nonsafety interface.

Issue:

The applicant depicts on LRA drawing PID-1-CS-LR20724, at location G-11, a section of safety-related 3" piping connected to nonsafety-related 3" piping at valve V633. The piping section, located between valve V633 and the seismic anchor located at G-9, is in scope of license renewal for 10 CFR 54.4(a)(2). However, there is a 1" line that connects to the 3" nonsafety-related piping between valve V633 and the seismic anchor. This line continues and connects to a 3" piping section, which connects into a 3" line and ¾" line at location E-9. At location D-12 of LRA drawing PID-1-CS-LR20724, the 3" line continues through valves V634, V635, V636 to a piping section that continues to LRA drawing PID-1-BRS-LR20856. This piping

section is not depicted in scope of license renewal. Additionally, at location D-12 of LRA drawing PID-1-CS-LR20724, the ¾" line continues through valve V835 to LRA drawing PID-1-SS-LR20519. Seismic anchors could not be located between the start of the 1" line (at location G-9 on LRA drawing PID-1-CS-LR20724) and the 3" and ¾" continuations (at location D-12 on LRA drawing PID-1-CS-LR20724).

Request:

The staff requests that the applicant provide the location of the first seismic anchors on nonsafety-related piping past the safety/non-safety interface for the above locations.

**RAI 2.3.3.12-01**

Background:

In LRA Section 2.1.3, the applicant states that its screening process was used to identify the passive, long-lived structures and components in the scope of license renewal and subject to AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

The applicant depicts on LRA drawings PID-1-DG-LR20460 and PID-1-DG-LR20465, at location F-10, a pulsation damper and cooling pipe in scope of license renewal for 10 CFR 54.4(a)(1). The same LRA drawings, at location B-7, depict upper and lower barring gear interlock components in scope of license renewal for 10 CFR 54.4(a)(1). However, none of the above components were included in LRA Table 2.3.3-12, "Diesel Generator Components Subject to Age Management Review."

Request:

The staff requests that the applicant justify the exclusion of these (a)(1) components from LRA Table 2.3.3-12.

**RAI 2.3.3.19-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

On LRA drawing PID-1-HW-LR20051, the applicant depicts ½" vent lines, at locations G-11 and G-12 respectively, attached to the hot water heating system expansion tanks, which are in scope of license renewal for 10 CFR 54.4(a)(2). The ½" vent lines are shown not in scope of license renewal. The staff is concerned with conditions where the vent lines are liquid filled during a design basis event.

Request:

The staff requests that the applicant justify the exclusion of the ½" vent lines from scope of license renewal.

**RAI 2.3.3.19-02**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-HW-LR20056, location G-11, a make-up tank that is not in scope of license renewal but is connected to nonsafety-related piping that is in scope of licenses renewal for 10 CFR 54.4(a)(2). The staff is concerned with conditions where the make-up tank is liquid filled. Therefore, the failure of the make-up tank when it is liquid-filled during a design basis event is required to be considered.

Request:

The staff requests that the applicant justify its exclusion of the make-up tank from scope of license renewal for 10 CFR 54.4(a)(2).

**RAI 2.3.3.20-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-IA-LR20637, at location G-3, 1" piping in scope of license renewal for 10 CFR 54.4(a)(3) that continues on LRA drawing PID-1-IA-LR20638, at location E-12. On LRA drawing PID-1-IA-LR20638, the 1" piping is not shown in scope of license renewal.

Request:

The staff requests that the applicant justify the exclusion of the 1" piping from scope of license renewal on LRA drawing PID-1-IA-LR20638.

**RAI 2.3.3.20-02**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The staff identified the following issues on LRA drawing PID-1-IA-LR20643:

- At locations F-8 and F-9, no continuation piping was identified between the check valve V531, which is depicted in scope of license renewal for 10 CFR 54.4(a)(1), and the seismic anchor.
- At locations E-8 and F-8, portions of 2" piping near valves (V533 and V535) are shown in scope of license renewal for 10 CFR 54.4 (a)(3). However, the pipe sections upstream of these valves and to the seismic anchors are shown not in scope of license renewal.
- At locations E-8 and F-8, the piping associated with the seismic anchors could not be identified on the drawing.
- At location E-8, there is a line whose beginning and end are not identified.

Request:

The staff requests that the applicant provide the following on LRA drawing PID-1-IA-LR20643:

- Identification of the continuation piping that is missing between the check valve V531 and seismic anchor at locations F-8 and F-9.
- Justification for excluding the continuation piping between valves V533 and V535 and the seismic anchors from scope of license renewal at locations E-8 and F-8.

- Identification of the missing continuation piping associated with the seismic anchors at locations E-8 and F-8.
- Identification of the missing continuation of the piping whose beginning and end are not identified.

**RAI 2.3.3.20-03**

**Background:**

In LRA Section 2.1.2.2.2, the applicant indicates that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal up to the first seismic anchor beyond the safety/nonsafety interface.

**Issue:**

During its review of the instrument air system LRA drawings, the staff could not locate seismic anchors on the following nonsafety-related lines.

<b>Non-Safety/Safety Interface Location</b>	<b>Description</b>
PID-1-IA-LR20647, location B-11	1" line connected to valve V8031
PID-1-IA-LR20647, location D-11	1" line connected to valve V8032
PID-1-IA-LR20647, location F-9	½" T line connected to valve MS-PV-3002-V4
PID-1-IA-LR20647, location H-9	½" T line connected to valve MS-PV-3002-V4F
PID-1-IA-LR20647, location F-4/5	½" T line connected to valve PY 3003-1
PID-1-IA-LR20647, location F-4/5	½" T line connected to valve PY 3003-2
PID-1-IA-LR20647, location H-4/5	½" T line connected to valve PY 3004-1
PID-1-IA-LR20647, location H-4/5	½" T line connected to valve PY 3004-2

**Request:**

The staff requests that the applicant clarify the locations of these seismic anchors for the above examples in the instrument air system.

**RAI 2.3.3.22-01**

**Background:**

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

On LRA drawing PID-1-DM-LR20353, at location H-3, the applicant refers to LR Note 1, which indicates that pump SF-P-272 is the only component in Table 1 that is in scope of license renewal for 10 CFR 54.4(a)(2). Table 1 also provides the LRA drawing location of pump SF-P-272. However, on LRA drawing PID-1-SF-LR20484, pump SF-P-272 is not depicted in scope of license renewal.

Request:

The staff requests that the applicant clarify the scoping results for pump SF-P-272 as described on LRA drawing PID-1-DM-LR20353 and depicted on LRA drawing PID-1-SF-LR20484.

**RAI 2.3.3.26-01**

Issue:

LRA section 2.3.3.26 provides an Updated Final Safety Analysis Report (UFSAR) reference of Appendix A, Section F.3, Page 41. However, the reference could not be located in the UFSAR that was submitted to the staff along with the LRA.

Request:

The staff requests that the applicant provide the UFSAR reference for Appendix A, Section F.3, Page 41 so that the staff can confirm that the components included in the plant floor drain system have been appropriately identified and included within the scope of license renewal.

**RAI 2.3.3.27-01**

Background:

In LRA Section 2.1.2.2.2, the applicant indicates that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic anchor beyond the safety/nonsafety interface.

Issue:

The applicant depicts on LRA drawing PID-1-CBA-LR20303, at locations B-11 and B-12, sections of safety-related piping connected to nonsafety-related piping passing through valves V7 and V8. These nonsafety-related 1½" lines through V7 and V8 continue to location B-11 through check valve V3 to the storm sewer. The seismic anchors could not be located for these lines through valves V7 and V8 beyond the safety/nonsafety interface.

Request:

The staff requests that the applicant provide the seismic anchor locations for the 1 1/2" lines to locate the seismic anchors beyond the safety/nonsafety interface.

**RAI 2.3.3.27-02**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-DF-LR20200, at location H-7, a section of 4" piping in scope for license renewal for 10 CFR 54.4 (a)(2). The 4" piping continues to LRA drawing PID-1-SD-LR20402, at location F-7, where it is not shown in scope of license renewal.

Request:

The staff requests that the applicant justify the exclusion of the portion of the 4" piping from scope of license renewal on LRA drawing PID-1-SD-LR20402, at location F-7.

**RAI 2.3.3.29-01**

Background:

In LRA Section 2.1.2.2.2, the applicant indicates that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic anchor beyond the safety/nonsafety interface.

Issue:

The applicant depicts on LRA drawing PID-1-CC-LR20205, at locations C-5 and F-7, sections of safety-related piping connected to nonsafety-related piping that continue to the demineralized water system on LRA drawing PID-1-DM-LR20350. However, the seismic anchors could not be located on the nonsafety-related piping beyond the safety/nonsafety interface.

Request:

The staff requests that the applicant provide the seismic anchor locations on the nonsafety-related piping as described above beyond the safety/nonsafety interface.

**RAI 2.3.3.29-02**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-WLD-LR20222, at location B-8, a section of 1" piping in scope of license renewal for 10 CFR 54.4 (a)(2). The 1" piping continues on LRA drawing PID-1-CS-LR20727, at location H-8. On LRA drawing PID-1-CS-LR20727, the piping is not included in scope of license renewal.

Request:

The staff requests that the applicant justify the exclusion of the 1" piping from scope of license renewal on LRA drawing PID-1-CS-LR20727, at location H-8.

**RAI 2.3.3.29-03**

Background:

In LRA Section 2.1.2.2.2, the applicant indicates that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic anchor beyond the safety/nonsafety interface.

Issue:

The staff made the following two observations involving the applicant's usage of its methodology described in LRA Section 2.1.2.2.2:

- On LRA drawings PID-1-CC-LR20205 (loop A) and PID-1-CC-LR20211 (loop B), at locations C-5 and B-5 respectively, sections of safety-related piping connected to nonsafety-related piping are in scope of license renewal for 10 CFR 54.4(a)(2). No seismic anchors are indicated on these LRA drawings. These lines continue on LRA drawing PID-1-FP-LR20268, at location B-9, where seismic anchors could not be located on the nonsafety-related piping beyond the safety/nonsafety interface.
- On LRA drawing PID-1-CC-LR20211, at location F-7, a section of safety-related piping connected to nonsafety-related piping is shown in scope of license renewal. The piping continues on LRA drawing PID-1-DM-LR20350, at location H-8, where a seismic anchor could not be located on the nonsafety-related piping beyond the safety/nonsafety interface.

Request:

The staff requests that the applicant provide the seismic anchor locations on the nonsafety-related piping beyond the safety/nonsafety interface as described in both of the above issues.

**RAI 2.3.3.34-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-DR-LR20633, at locations H-5 and H-6, 6" lines that continue on LRA drawing PID-1-SD-20402, at location F-9. On LRA drawing PID-1-DR-LR20633, the 6" piping that enters the continuation flag marked 'B' at location H-6 is included in scope of license renewal for 10 CFR 54.4(a)(2), while the other 6" piping at location H-5 that enters the continuation flag marked 'C' is not in scope of license renewal. However on the continuation LRA drawing PID-1-SD-20402, at location F-9, the 6" piping for 'B' is shown not in scope of license renewal and the other 6" piping for 'C' is shown in scope of license renewal.

Request:

The staff requests that the applicant clarify the correct designations of both 6" piping sections as shown on both LRA drawings PID-1-DR-LR20633 and PID-1-SD-20402.

**RAI 2.3.3.35-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-SB-LR20626, at location B-12, a section of 3" piping in scope of license renewal for 10 CFR 54.4(a)(3). The 3" piping continues to LRA drawing PID-1-SB-LR20629, at location E-12, where it is not included in the scope of license renewal.

Request:

The staff requests that the applicant justify the exclusion of this portion of 3" piping from scope of license renewal on LRA drawing PID-1-SB-LR20629.

**RAI 2.3.3.37-01**

Background:

In LRA Section 2.1.3, the applicant states that its screening process was used to identify the passive, long-lived structures and components in the scope of license renewal and subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-SW-LR20795, at locations B-11 and C-12, strainers in scope of license renewal for 10 CFR 54.4(a)(1). However, the component type strainer and its component intended function(s) are not included in LRA Table 2.3.3-37, "Service Water System Components Subject to Aging Management Review."

Request:

The staff requests that the applicant justify the exclusion of the strainer and its component intended function(s) from LRA Table 2.3.3-37.

**RAI 2.3.3.39-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant refers to a LR note 1 on LRA drawing PID-1-SF-LR20484, at location F-8, to describe a section of piping which states "These components are drained during operation so therefore they have an internal environment of air/gas so they have no license renewal (LR) intended function and not in scope." The portion of the line not in scope is directly connected to the refueling canal skimmer pump (P-272) and continues to the Refueling Pool & Canal skimmers. LRA Table 3.3.2-39, "Spent Fuel Pool Cooling System Summary of Aging Management Evaluation," for Pump Casing does not provide an internal environment of air or gas. Also, on LRA drawing PID-1-DM-LR20353, LR Note 1 indicates pump SF-P-272 is a

component that is in scope for license renewal, which contradicts with LR Note 1 on LRA drawing PID-1-SF-LR20484.

Request:

The staff requests that the applicant clarify the scoping designation of the piping directly connected to the refueling canal skimmer pump.

**RAI 2.3.3.39-02**

Background:

The applicant states in section 2.1.2 that the Seabrook Station, Unit 1 (Seabrook) UFSAR is one of the existing plant documentation sources used to form the Seabrook Station CLB. The CLB documentation is then used by the applicant to identify system level and structure intended functions to help develop the basis for identification of the in scope components for license renewal.

Issue:

During the staff's review of the Section 2.3.3.39, the staff identified a discrepancy between the CLB and LRA descriptions of the alternate spent fuel pool cooling (ASFPC) heat exchanger. The applicant states in the Seabrook UFSAR that the ASFPC heat exchanger is available and can be placed in service as needed. The applicant describes in the LRA that the ASFPC heat exchanger is blank-flanged and is in abandoned status.

Request:

The staff requests that the applicant clarifies whether the ASFPC heat exchanger is available as part of the spent fuel pool cooling system and if the component is in scope of license renewal. Please state how any inconsistencies will be corrected.

**RAI 2.3.3.41-01**

Background:

In LRA Section 2.1.3, the applicant states that its screening process was used to identify the passive, long-lived structures and components in the scope of license renewal and subject to an AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID 1-VSL-LR20776, at locations F-4 and F-11, four vent pipelines in each location in scope for license renewal for 10 CFR 54.4 (a)(2). However, the valves associated with the vent lines are not listed on LRA Table 2.3.3-41, "Valve Stem Leak-off

System Components Subject to Aging Management Review," as a valve component type with intended function(s).

Request:

The staff requests that the applicant justify the exclusion of the valves from LRA Table 2.3.3-41.

**RAI 2.3.3.41-02**

Background:

In LRA Section 2.1.2.2.2, the applicant indicates that nonsafety-related SSCs attached to safety-related SSCs are in scope of license renewal for 10 CFR 54.4(a)(2) up to the first seismic anchor beyond the safety/nonsafety interface.

Issue:

The applicant depicts on LRA drawing PID-1-VSL-LR20776, at locations F-4 and F-11, four vent pipelines in each location in scope of license renewal for 10 CFR 54.4 (a)(2). However, the seismic anchors could not be located on the nonsafety-related piping beyond the safety/nonsafety interface.

Request:

The staff requests that the applicant provide the seismic anchor locations on the nonsafety-related piping as described above beyond the safety/nonsafety interface.

**RAI 2.3.3.45-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

In LRA drawing PID-1-WLD-LR20218, at location G-6, the applicant places LR Note 2, which states "Components have an internal environment of air/gas so they have no license renewal intended function and are not in scope." The portion of the piping excluded from scope of license renewal is directly connected to the in-scope reactor coolant drain tank (TK-55) and continues up to the relief valve V83. LRA Table 3.3.2-45, "Waste Processing Liquid Drains System Summary of Aging Management Evaluation," for tanks does not list an internal environment of air or gas. The staff is concerned with conditions where the relief valves actuate

and the drain lines are liquid-filled. Therefore, the failure of the liquid-filled drain lines during a design basis event is required to be considered.

Request:

The applicant is requested to either:

1. Include the piping attached to the reactor coolant drain tank in scope of license renewal and subject to aging management in accordance with 10 CFR 54.4(a)(2), or
2. Provide the results of an evaluation that demonstrates the failure of this piping, while liquid-filled during a design basis event, will not prevent the satisfactory accomplishment of any functions identified in 10 CFR 54.4(a)(1).

**RAI 2.2.3.45-02**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-WLD-LR20218, at location H-5, a tailpipe connected to a relief valve (V83) not in scope of license renewal. However, on the continuation LRA drawing PID-1-WLD-LR20219, at location F-4, the tailpipe is shown in scope of license renewal for 10 CFR 54.4(a)(2).

Request:

The staff requests that the applicant clarify the correct designation for the relief valve tailpipe as shown in LRA drawings PID-1-WLD-LR20218 and PID-1-WLD-LR20219 at the above locations.

**RAI 2.3.4.2-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-ASC-LR20908, at location E-12, piping inside the heat exchanger HWS-E-132 in scope of license renewal for 10 CFR 54.4(a)(2). However, on LRA drawing PID-1-HW-LR20056, at location F-11, the applicant depicts the same piping not in scope of license renewal.

Request:

The staff requests that the applicant clarify the scoping of the piping inside the heat exchanger as shown on LRA drawings PID-1-ASC-LR20908 and PID-1-HW-LR20056.

**RAI 2.3.4.5-01**

Background:

In LRA Section 2.1.3, the applicant states that its screening process was used to identify the passive, long-lived structures and components in the scope of license renewal and subject to AMR. The staff confirms inclusion of all components subject to an AMR by reviewing component types within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-CO-LR20426, at location H-9, a floating seal CO-MM-679 of the condensate storage tank TK-25 not in scope of license renewal. LRA Table 2.3.4-5, "Condensate System Components Subject to Aging Management Review," does not list this floating seal. This component appears to be part of the condensate system tank, which is depicted as being in scope of license renewal for 10 CFR 54.4(a)(1).

Request:

The staff requests that the applicant justify the exclusion of the floating seal from scope of license renewal and LRA Table 2.3.4-5.

**RAI 2.3.4.8-01**

Background:

LRA Section 2.1 describes the applicant's scoping methodology, which specifies how systems or components were determined to be included in scope of license renewal. The staff confirms the inclusion of all components subject to an AMR by reviewing the results of the screening of components within the license renewal boundary.

Issue:

The applicant depicts on LRA drawing PID-1-SS-LR20521, at location A-6, "vent to atmosphere" piping attached to cooler H-376 as not being in scope of license renewal. However, cooler H-376 is shown as in scope of license renewal for 10 CFR 54.4(a)(2).

Request:

The staff requests that the applicant justify its exclusion of the vent to atmosphere piping, which is attached to cooler H-376, from scope of license renewal.

January 5, 2011

Mr. Paul Freeman  
Site Vice President  
c/o Mr. Michael O'Keefe  
NextEra Energy Seabrook, LLC  
P.O. Box 300  
Seabrook, NH 03874

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE REVIEW OF  
THE SEABROOK STATION LICENSE RENEWAL APPLICATION  
(TAC NO. ME4028)

Dear Mr. Freeman:

By letter dated May 25, 2010, NextEra Energy Seabrook, LLC, submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54, to renew Operating License NPF-86 for Seabrook Station, Unit 1, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

The request for additional information was discussed with Mr. Rick Cliche, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-1427 or by e-mail at [richard.plasse@nrc.gov](mailto:richard.plasse@nrc.gov).

Sincerely,  
*/RA/*  
Richard Plasse, Project Manager  
Projects Branch 2  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosure:  
As stated

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Letter to P. Freeman from R. Plasse dated January 5, 2011

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION RELATED TO THE REVIEW OF  
THE SEABROOK STATION, LICENSE RENEWAL APPLICATION  
(TAC NO. ME4028)

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