



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

January 31, 2013

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

SUBJECT: SEABROOK STATION, UNIT NO. 1 - ISSUANCE OF AMENDMENT RE:
EMERGENCY PLAN (TAC NO. ME8548)

Dear Mr. Walsh:

The Commission has issued the enclosed Amendment No. 133 to Facility Operating License No. NPF-86 for the Seabrook Station, Unit No. 1 (Seabrook). This amendment consists of changes to the facility operating license in response to your application dated April 30, 2012.

The amendment revises the emergency action level (EAL) initiating conditions involving a loss of safety system annunciation or indication in the control room. The current emergency classification scheme includes EALs that could place the plant in an emergency classification based solely on a loss of radiation monitoring indications. The proposed changes revise the EALs to include radiation monitoring indications within the aggregate of safety system indications that are to be considered when evaluating a loss of safety system indications rather than as separate and independent EALs.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "John G. Lamb".

John G. Lamb, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosures:

1. Amendment No. 133 to NPF-86
2. Safety Evaluation

cc: Listserv



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

NEXTERA ENERGY SEABROOK, LLC, ET AL.*

DOCKET NO. 50-443

SEABROOK STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE


Amendment No. 133
License No. NPF-86

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by NextEra Energy Seabrook, LLC, et al., (the licensee) dated April 30, 2012, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in Title 10 of the *Code of Federal Regulations* (10 CFR) Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

*NextEra Energy Seabrook, LLC is authorized to act as agent for the: Hudson Light & Power Department, Massachusetts Municipal Wholesale Electric Company, and Taunton Municipal Light Plant and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

2. Accordingly, by Amendment No. 133, Facility Operating License No. NPF-86 is hereby amended to authorize revision to the Seabrook Station Emergency Plan as set forth in NextEra Energy Seabrook, LLC's application dated April 30, 2012, and evaluated in the NRC staff's safety evaluation dated January 31, 2013. The license amendment is effective as of its date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Attachment: Changes to the License

Date of Issuance: January 31, 2013

ATTACHMENT TO LICENSE AMENDMENT NO. 133

FACILITY OPERATING LICENSE NO. NPF-86

DOCKET NO. 50-443

Replace the following page of Facility Operating License No. NPF-86 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

Remove

3

Insert

3

- (4) NextEra Energy Seabrook, LLC, pursuant to the Act and 10 CFR 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) NextEra Energy Seabrook, LLC, pursuant to the Act and 10 CFR 30, 40, and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;
- (6) NextEra Energy Seabrook, LLC, pursuant to the Act and 10 CFR 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility authorized herein; and
- (7) DELETED

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

NextEra Energy Seabrook, LLC, is authorized to operate the facility at reactor core power levels not in excess of 3648 megawatts thermal (100% of rated power).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 133, and the Environmental Protection Plan contained in Appendix B are incorporated into the Facility License No. NPF-86. NextEra Energy Seabrook, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) License Transfer to FPL Energy Seabrook, LLC**

- a. On the closing date(s) of the transfer of any ownership interests in Seabrook Station covered by the Order approving the transfer, FPL Energy Seabrook, LLC**, shall obtain from each respective transferring owner all of the accumulated decommissioning trust funds for the facility, and ensure the deposit of such funds and additional funds, if necessary, into a decommissioning trust or trusts for Seabrook Station established by FPL Energy Seabrook, LLC**, such that the amount of such funds deposited meets or exceeds the amount required under 10 CFR 50.75 with respect to the interest in Seabrook Station FPL Energy Seabrook, LLC**, acquires on such dates(s).

* Implemented

** On April 16, 2009, the name "FPL Energy Seabrook, LLC" was changed to "NextEra Energy Seabrook, LLC".



UNITED STATES
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 133

TO FACILITY OPERATING LICENSE NO. NPF-86

SEABROOK STATION, UNIT NO. 1

DOCKET NO. 50-443

1.0 INTRODUCTION

In a letter dated April 30, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12124A341), NextEra Energy Seabrook, LLC (NextEra) proposed changes associated with the emergency action level (EAL) initiating conditions involving a loss of safety system annunciation or indication in the control room. The current emergency classification scheme includes EALs that could place the plant in an emergency classification based solely on a loss of radiation monitoring indications. However, a loss of radiation monitoring indications by itself may not represent degradation in the level of plant safety. Therefore, the proposed changes revise the EALs to include radiation monitoring indications within the aggregate of safety system indications that are to be considered when evaluating a loss of safety system indications rather than as separate and independent EALs.

2.0 REGULATORY EVALUATION

This safety evaluation addresses the impact of the proposed changes on the Seabrook Station, Unit 1 (Seabrook) EALs. The regulatory requirements and guidance on which the U.S. Nuclear Regulatory Commission (NRC) staff based its acceptance are as follows:

2.1 Regulations

Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.47, "Emergency plans," sets forth emergency plan requirements for nuclear power plant facilities. The regulations in 10 CFR 50.47(a)(1)(i) state, in part, that:

... no initial operating license for a nuclear power reactor will be issued unless a finding is made by the NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

Section 50.47(b) establishes the standards that the onsite and offsite emergency response plans must meet for NRC staff to make a positive finding that there is reasonable assurance that the licensee can and will take adequate protective measures in the event of a radiological emergency. Planning Standard (4) of this section requires that a licensee's emergency response plan contain: "[a] standard emergency classification and action level scheme, the

bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.”

Section 50.47(b)(4) to 10 CFR specifies a standard emergency classification and action level scheme, and as such, the NRC staff will ensure that implementation methods are relatively consistent throughout the industry for a given reactor and containment design, while simultaneously providing an opportunity for a licensee to modify their EAL scheme, as necessary, to address plant-specific design considerations or preferences.

Section 50.54(q)(4) states, in part, that:

The changes to a licensee's emergency plan that reduce the effectiveness of the plan as defined in paragraph (q)(1)(iv) of this section may not be implemented without prior approval by the NRC.

The proposed change was submitted to the NRC for a technical and regulatory review prior to implementation by the licensee, as required under 10 CFR 50.54(q).

2.2 Guidance

Revision 4 to Regulatory Guide (RG) 1.101, “Emergency Planning and Preparedness for Nuclear Power Reactors,” issued in July 2003 (ADAMS Accession No. ML032020276), endorses the guidance contained in the Nuclear Energy Institute (NEI) document NEI 99-01, “Methodology for Development of Emergency Action Levels,” Revision 4, January 2003 (ADAMS Accession No. ML041470143). The guidance is acceptable to the NRC staff as an alternative method to the below listed guidance for developing EALs, as required in Section IV of Appendix E to 10 CFR Part 50 and 10 CFR 50.47(b)(4):

- Appendix 1 to NUREG-0654/FEMA-REP-1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants” (ADAMS Accession No. ML040420012), and
- Nuclear Utilities Management Council (NUMARC) document, entitled NESP-007, “Methodology for Development of Emergency Action Levels” (ADAMS Accession No. ML041120174).

Regulatory Issue Summary (RIS) 2003-18, with Supplements 1 & 2, “Use of NEI 99-01, Methodology for Development of Emergency Action Levels,” (ADAMS Accession Nos. ML032580518, ML041550395, and ML051450482), provides guidance for developing or changing a standard emergency classification and action level scheme. In addition, this RIS provides recommendations to assist licensees, consistent with Section IV.B to Appendix E of Part 50, in determining whether to seek prior NRC approval of deviations from the guidance.

NEI 99-01, “Methodology for Development of Emergency Action Levels” Revision 5 (ADAMS Accession No. ML080450149), has been determined to be acceptable to the NRC via letter dated February 22, 2008 (ADAMS Accession No. ML080430535).

3.0 TECHNICAL EVALUATION

3.1 Background

The current NRC-approved emergency classification scheme for Seabrook is based on NEI 99-01 (Revision 4) and was approved by letter dated December 31, 2007 (ADAMS Accession No. ML073520318). As part of the application, the licensee evaluated the proposed changes using the latest approved guidance in NEI 99-01 (Revision 5), which did not make any significant changes to the specific EALs affected by these proposed changes.

This proposed change revises the EALs associated with Category 'S' – System Malfunction Initiating Conditions SU3, SA4, and SS6. Initiating Conditions SU3 and SA4 address an unplanned loss of safety system annunciation or indication in the control room, and SS6 involves the inability to monitor a significant event in progress. The licensee provides a table that displays the EALs in NEI 99-01 (Revision 5) for these Initiating Conditions, the current Seabrook EALs and the proposed EALs.

3.2 Evaluation

Initiating Conditions SU3, SA4, and SS6 in NEI 99-01 are primarily concerned with a loss of the control room staff's ability to monitor changing plant conditions. Each of these initiating conditions contains an EAL that addresses a loss of greater than approximately 75-percent of the site-specific control room safety system indication for 15 minutes or longer. The licensee provides that their site-specific implementation for this generic EAL established two separate EALs with an "or" logic for a loss of main control board indications and for loss of radiation monitor indications. As a consequence, when the control room staff is evaluating SU3, the loss of greater than 75-percent of the radiation monitor indications in the control room would place the plant in an unusual event. Similarly, a loss of greater than 75-percent of the radiation monitor indications in the control room would meet the threshold for satisfying one attribute in the EAL logic for placing the plant in an emergency classification under initiating conditions SA4 and SS6.

The declaration of an emergency, based only on a loss of radiation monitor indications, is overly restrictive and inconsistent with the guidance in NEI 99-01. A loss of radiation monitor indications, by itself, does not meet the threshold for placing the plant in an emergency classification level, since this condition does not indicate potential degradation in plant safety that presents a threat to public health and safety or to plant workers. NEI 99-01 does not provide a separate EAL for loss of radiation monitor indications; rather, the EAL specifies a loss of control room safety system indications. Radiation monitors are only one type of indicator included in the aggregate of the control room safety system.

3.3 Conclusion

The NRC staff performed a technical and regulatory review of the proposed changes to the Initiating Conditions SU3, SA4, and SS6. The NRC staff finds that the declaration of an emergency based only on a loss of radiation monitor indications is overly restrictive and is inconsistent with the guidance provided in NEI 99-01.

Therefore, the NRC staff has determined, based on the considerations discussed in the Evaluation Section above, that: (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 proposed emergency plan change will not be inimical to the common defense and security or to the health and safety of the public. The NRC staff has determined that incorporation of the proposed change continues to meet the standards of Section 50.47(b) and the requirements of Appendix E to 10 CFR Part 50, and continues to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New Hampshire and Massachusetts State officials were notified of the proposed issuance of the amendment. The State of New Hampshire official had no comments. The State of Massachusetts official provided two comments.

Comment 1:

Presently, a UE [Unusual Event] is declared if there is an unplanned loss of 75% or more of the main control board indicators for > 15 minutes. They want to change it to only safety related indicators and radiation monitor indications on CP-180 A&B. They have decreased their safety margin by limiting the amount of indicators that could drive a classification and also reduce the calls to the State on any potential problems.

Comment 2:

At the Alert, there is the same criteria as the bullet above but now they have decreased the number of radiation monitor indications to only the indicators on CP-180 A&B. Again, they are decreasing their actions for declaring an Alert and notifying the State of any issues at the plant.

NRC Response to Comments 1 and 2:

The EAL scheme development guidance (NEI 99-01, Revision 5) requires the development of an EAL set that results in an EAL declaration when >75% of available Control Room safety-system annunciation and/or indication is unavailable, with escalation criteria if a significant transient is in process and compensatory indications are also unavailable. The intent of this EAL is to recognize the impact that a loss of safety-related annunciation/indication has on the Control Room operators. The loss of non-safety related annunciation/indication is not considered a precursor to a radiological event, and thus, does not have an EAL associated with it. If an issue arises that compromises the ability of the site to shutdown and/or cool-down, other EALs will serve to bound this condition.

Please note the distinction between EALs and reportable events. EALs are intended to drive implementation of a site's radiological emergency response plan, and depending on the classification level (unusual event, alert, site area emergency, or general emergency) require specific action(s) at the site, and State/Counties, in order to mitigate the consequences of a radiological event. Reportable events (please refer to NUREG-1022) are intended to be conditions where notification to the State/Counties, and/or the NRC, is prudent given the significance of the concern. These concerns may not be considered to be precursors to a radiological emergency and may, therefore, not require an EAL.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes the requirements with respect to use of a facility component located within the restricted area, as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (77 FR 31661). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner; (2) there is reasonable assurance that 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.

Principal Contributor: Michael Norris

Date: January 31, 2013

January 31, 2013

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

SUBJECT: SEABROOK STATION, UNIT NO. 1 - ISSUANCE OF AMENDMENT RE:
EMERGENCY PLAN (TAC NO. ME8548)

Dear Mr. Walsh:

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A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,
/RA/

John G. Lamb, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-443

Enclosures:

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 2. Safety Evaluation
- cc: Listserv

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