



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PA 19406-2713

May 16, 2016

Mr. Dean Curtland  
Vice President, Seabrook Station  
c/o Mr. Michael Ossing  
NextEra Energy Seabrook, LLC  
626 Lafayette Rd.  
Seabrook, NH 03874

SUBJECT: SEABROOK STATION, UNIT NO. 1 – EVALUATED EMERGENCY  
PREPAREDNESS EXERCISE – INSPECTION REPORT NO. 05000443/2016502

Dear Mr. Curtland:

On April 7, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the April 5, 2016, evaluated emergency preparedness (EP) exercise at Seabrook Station, Unit No. 1. The enclosed inspection report documents the inspection results, which were discussed on April 7, 2016, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your licenses. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The NRC inspectors did not identify any findings or violations of more than minor significance.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS)

component of the NRC's document system, Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Raymond R. McKinley, Chief  
Plant Support Branch 1  
Division of Reactor Safety

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

Enclosure: NRC Inspection Report No.  
05000443/2016502  
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ  
S. Coleman, RAC Chair, FEMA Region I

component of the NRC's document system, Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Raymond R. McKinley, Chief  
Plant Support Branch 1  
Division of Reactor Safety

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

Enclosure: NRC Inspection Report No.  
05000443/2016502  
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ  
S. Coleman, RAC Chair, FEMA Region I

DISTRIBUTION w/encl:  
(via e-mail)

DLew, actg RA  
MFlanders, actg DRA  
MScott, DRP  
DPelton, DRP  
RLorson, DRS

BSmith, DRS  
FBower, DRP  
RBarkley, DRP  
MDraxton, DRP  
RVadella, DRP  
PCataldo, DRP, SRI  
JVazquez, DRP, Actg RI

ACass, DRP, Resident AA  
JBowen, RI, OEDO  
RidsNrrPMSeabrook Res  
RidsNrrDorLpl1-2 Res  
ROPreports Resource

DOCUMENT NAME: G:\DRS\Plant Support Branch 1\EP INSPECTIONS\BASELINE\2016\EP EX16  
SEABROOK\Seabrook EP EX 2016 Report.docx  
ADAMS Accession No. **ML16137A139**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive		<input checked="" type="checkbox"/> Publicly Available	
OFFICE	RI/DRS	RI/DRP	RI/DRS		
NAME	SBarr/ SB	FBower/ FLB	RMckinley/ RRM		
DATE	05/10/16	05/10/16	05/16/16		

**OFFICIAL RECORD COPY**

**U.S. NUCLEAR REGULATORY COMMISSION****REGION I**

Docket No. 50-443

License No. NPF-86

Report No. 05000443/2016502

Licensee: NextEra Energy Seabrook, LLC

Facility: Seabrook Station, Unit No.1

Location: Seabrook, New Hampshire

Dates: April 4-7, 2016

Inspectors: S. Barr, Senior Emergency Preparedness Inspector,  
Division of Reactor Safety (DRS), Region I (Lead)  
J. DeBoer, Emergency Preparedness Inspector, DRS, Region I  
P. Ott, Operations Inspector, DRS, Region I  
J. Bream, Security Inspector, DRS, Region I  
R. Vadella, Reactor Engineer, Division of Reactor Projects, Region I

Approved By: Raymond McKinley, Chief  
Plant Support Branch 1  
Division of Reactor Safety

Enclosure

## **SUMMARY OF FINDINGS**

IR 05000443/2016502; 04/04/16 – 04/07/16; Seabrook Station, Unit No. 1; Exercise Evaluation--Scenario Review--Performance Indicator Verification.

This was an announced inspection conducted by five Region I-based inspectors. No findings were identified during the inspection. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

### **Cornerstone: Emergency Preparedness**

No findings were identified.

## REPORT DETAILS

### 1. REACTOR SAFETY

#### Cornerstone: Emergency Preparedness (EP)

#### 1EP1 Exercise Evaluation (71114.01 – 1 Sample)

##### a. Inspection Scope

On April 5, 2016, NextEra conducted a biennial Seabrook emergency preparedness exercise. The inspectors evaluated the adequacy of the licensee's conduct of the exercise, the performance of the Seabrook emergency response organization (ERO) to respond to the simulated emergency, and NextEra's capability to assess their own staff performance via a formal critique process, as required by Title 10 of the *Code of Federal Regulations* (CFR) 50.47(b) (14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of NextEra's Seabrook performance in the biennial full-participation exercise regarding the implementation of the planning standards described in 10 CFR 50.47(b) (4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; onsite protective actions; and public protective action recommendations, respectively.
- The overall adequacy of NextEra's Seabrook emergency response facilities (ERF) with regard to Emergency Plan commitments. The ERFs assessed were: the Control Room Simulator, the Technical Support Center (TSC), and the Emergency Operations Facility (EOF).
- A review of other performance areas, such as: the licensee ERO recognition of abnormal plant conditions; command and control; intra- and inter-facility communications; prioritization of mitigating activities; utilization of repair and field monitoring teams; interface with offsite agencies; staffing and procedure adequacy; and the overall implementation of the emergency plan and its implementing procedures.
- A review of past performance issues from the last NRC Seabrook exercise inspection report and NextEra's Seabrook EP drill reports, to determine the effectiveness of licensee corrective actions as demonstrated during the April 5, 2016, exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- A review of the licensee's post-exercise critiques, to evaluate NextEra's Seabrook self-assessment of its Seabrook ERO performance during the April 5, 2016, exercise and to ensure compliance with 10 CFR Part 50, Appendix E, Section IV.F.2.g.

The inspectors reviewed the documents listed in the attachment to this report.

b. Findings

No findings were identified.

1EP8 Exercise Evaluation – Scenario Review (71114.08 – 1 Sample)

a. Inspection Scope

Prior to the April 5, 2016, EP exercise, the NRC inspectors conducted an in-office review of the exercise objectives and scenario, which NextEra had submitted to the NRC, to determine if the exercise would test major elements of the Seabrook Emergency Plan as required by Title 10 of the *Code of Federal Regulations* (CFR) 50.47(b)(14). This overall exercise inspection activity represented the completion of one sample on a biennial cycle.

The inspectors reviewed the documents listed in the attachment to this report.

b. Findings

No findings were identified.

**4. OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator Verification (71151 – 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Seabrook EP Performance Indicators (PI), which are: (1) Drill and Exercise Performance (DEP); (2) ERO Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last EP inspection at Seabrook was conducted in the fourth calendar quarter of 2015, so the inspectors reviewed supporting documentation from EP drills and tests from the fourth calendar quarter of 2015 through the first calendar quarter of 2016, to verify the accuracy of the reported PI data. The review of these PIs was conducted in accordance with NRC Inspection Procedure 71151, using the acceptance criteria documented in NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines" Revision 7.

This inspection activity represented the completion of three samples.

b. Findings

No findings were identified.

#### 4OA6 Meetings, including Exit

The inspectors presented the inspection results to Mr. Dean Curtland, Site Vice President, at the conclusion of the inspection on April 7, 2016. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.



**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

D. Curtland, Site Vice President  
D. Currier, Emergency Preparedness Manager

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened/Closed

None

**LIST OF DOCUMENTS REVIEWED**

**Section 1EP1: Exercise Evaluation**

Seabrook Station Radiological Emergency Plan, Revision 69  
EP-AA-101, Nuclear Division Drill and Exercise Program, Revision 1  
EP-AA-101-1000, Nuclear Division Drill and Exercise Procedure, Revision 9  
EP-AA-101-1000-10001, Nuclear Division Drill and Exercise Objectives and  
Demonstration Criteria, Revision 1  
Seabrook Emergency Implementing Procedures  
Seabrook Station Emergency Exercise CFD 16-02 Scenario Package  
Seabrook Emergency Preparedness Drill Reports, November 2014 – March 2016  
SEP# 201604, Seabrook Station CFD 16-02 Exercise Report  
ER 1.1A, Emergency Initiating Condition Matrix, Revision 46  
ER 3.1, Technical Support Center Operations, Revision 60  
ER 5.3A, Operation of the Raddose V, Revision 34  
ER 5.4, Protective Action Recommendations, Revision 35

**Section 1EP8: Exercise Evaluation – Scenario Review**

Seabrook Station Radiological Emergency Plan, Revision 69  
Seabrook Station Emergency Exercise CFE 14-05 Scenario Package  
EP-AA-101, Nuclear Division Drill and Exercise Program, Revision 1  
EP-AA-101-1000-10000, NRC and FEMA Evaluated Exercise Scenario Review and  
Submittal, Revision 00

**Section 4OA1: Performance Indicator (PI) Verification**

EPDP-03, Emergency Preparedness Performance Indicators, Revision 25  
DEP PI data, October 2015 – March 2016  
ERO Drill Participation PI data, October 2015 – March 2016  
ANS Reliability PI data, October 2015 – March 2016

## **LIST OF ACRONYMS**

ADAMS	Agencywide Documents Access and Management System
AF	Alternative Facility
ANS	Alert Notification System
CFR	Code of Federal Regulations
DEP	Drill and Exercise Performance
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERF	Emergency Response Facility
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PI	Performance Indicator
TSC	Technical Support Center