



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

May 29, 2012

EA 12-093

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

**SUBJECT: SEABROOK STATION, UNIT 1 – NRC EVALUATED EMERGENCY
PREPAREDNESS EXERCISE INSPECTION REPORT 05000443/2012503 –
PRELIMINARY WHITE FINDING**

Dear Mr. Freeman:

On April 19, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Seabrook Station, Unit 1. The enclosed inspection report documents the inspection results which were discussed on April 19, 2012, 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 license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The enclosed inspection report discusses a finding that has preliminarily been determined to be a White finding with low to moderate safety significance that may require additional NRC inspections. As described in Section 1EP1 of the enclosed report, the finding is related to your staff not identifying a weakness associated with a Risk Significant Planning Standard during your April 17, 2012, full-scale emergency preparedness exercise critique. Since this finding is associated with a training exercise critique, it did not present an immediate safety concern. This finding was assessed based on the best available information, using the applicable Significance Determination Process (SDP). The basis for the NRC's preliminary significance determination is described in the enclosed report. The final resolution of this finding will be conveyed in a separate correspondence.

The finding is also an apparent violation of NRC requirements and is being considered for escalated enforcement action in accordance with the Enforcement Policy, which can be found on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

In accordance with the NRC Inspection Manual Chapter (IMC) 0609, we intend to complete our evaluation, using the best available information, and issue our final determination of safety significance within 90 days of the date of this letter. The significance determination process encourages an open dialogue between NRC staff and the licensee; however, the dialogue should not impact the timeliness of the staff's final determination. Before we make a final decision on this matter, we are providing you with an opportunity to: (1) attend a Regulatory Conference where you can present to the NRC your perspective on the facts and assumptions the NRC used to arrive at the finding and assess its significance, or (2) submit your position on the finding to the NRC in writing. If you request a Regulatory Conference, it should be held within 30 days of the receipt of this letter and we encourage you to submit supporting documentation at least one week prior to the conference in an effort to make the conference more efficient and effective. If a Regulatory Conference is held, it will be open for public observation and, to announce the conference, a public meeting notice and press release will be issued. If you decide to submit only a written response, such submittal should be sent to the NRC within 30 days of your receipt of this letter. If you decline to request a Regulatory Conference or submit a written response, you relinquish your right to appeal the final SDP determination; in that, by not doing either you fail to meet the appeal requirements stated in the Prerequisite and Limitation Sections of Attachment 2 of IMC 0609.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region I, and the NRC Resident Inspector at Seabrook.

Please contact Mr. James Trapp, at (610) 337-5186, within 10 days from the issue date of this letter to notify the NRC of your intentions. If we have not heard from you within 10 days, we will continue with our significance determination and enforcement decision. Since the NRC has not made a final determination in this matter, no Notice of Violation is being issued for this inspection finding at this time. In addition, please be advised that the number and characterization of the apparent violation may change as the result of further NRC review.

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



Christopher G. Miller, Director
Division of Reactor Safety

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

In accordance with the NRC Inspection Manual Chapter (IMC) 0609, we intend to complete our evaluation, using the best available information, and issue our final determination of safety significance within 90 days of the date of this letter. The significance determination process encourages an open dialogue between NRC staff and the licensee; however, the dialogue should not impact the timeliness of the staff's final determination. Before we make a final decision on this matter, we are providing you with an opportunity to: (1) attend a Regulatory Conference where you can present to the NRC your perspective on the facts and assumptions the NRC used to arrive at the finding and assess its significance, or (2) submit your position on the finding to the NRC in writing. If you request a Regulatory Conference, it should be held within 30 days of the receipt of this letter and we encourage you to submit supporting documentation at least one week prior to the conference in an effort to make the conference more efficient and effective. If a Regulatory Conference is held, it will be open for public observation and, to announce the conference, a public meeting notice and press release will be issued. If you decide to submit only a written response, such submittal should be sent to the NRC within 30 days of your receipt of this letter. If you decline to request a Regulatory Conference or submit a written response, you relinquish your right to appeal the final SDP determination; in that, by not doing either you fail to meet the appeal requirements stated in the Prerequisite and Limitation Sections of Attachment 2 of IMC 0609.

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Sincerely,
 /RA/
 Christopher G. Miller, Director
 Division of Reactor Safety

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

DOCUMENT NAME: G:\DRS\Plant Support Branch 1\Barr\EP Ex12 Seabrook\Seabrook EP EX 2012 Report.docx
 ADAMS ACCESSION NUMBER: ML12151A036

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRS	RI/DRS	RI/ORR	RI/DRS	RI/DRS
NAME	SBarr	ABurritt	MMcLaughlin	JTrapp	CMiller
DATE	5/23/12	5/25/12	5/29/12	5/25/12	5/29/12

P. Freeman

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Enclosure:
NRC Inspection Report No. 05000443/2012503
w/Attachment: Supplemental Information

cc w/encl:
S. Coleman, RAC, FEMA Region I

cc w/encl: Distribution via ListServ

Distribution w/encl: (via E-mail)

W. Dean, RA (R1ORAMAIL Resource)
D. Lew, DRA (R1ORAMAIL Resource)
D. Roberts, DRP (R1DRPMAIL Resource)
J. Clifford, DRP (R1DRPMAIL Resource)
C. Miller, DRS (R1DRSMail Resource)
P. Wilson, DRS (R1DRSMail Resource)
A. Burritt, DRP
L. Cline, DRP
A. Turilin, DRP
R. Montgomery, DRP
W. Raymond, DRP, SRI
M. Jennerich, DRP, RI
J. DeBoer, Acting RI
A. Cass, DRP, Resident AA
M. McCoppin, RI, OEDO
RidsNrrPMSeabrook Resource
RidsNrrDorlLp11-2 Resource
ROPreports Resource
D. Bearde, DRS
S. Barr, DRS
J. Trapp, DRS
R. Kahler, NSIR/EPD
S. LaVie, NSIR/EPD
M. McLaughlin, ORA
D. Holody, ORA
R. Eul, OE
J. Bowen, NRR
S. Coker, NSIR

U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-443

License No.: NPF-86

Report No.: 05000443/2012503

Licensee: NextEra Energy Seabrook, LLC

Facility: Seabrook Station, Unit 1

Location: Seabrook, NH 03874

Dates: April 16-19, 2012

Inspectors: S. Barr, Senior Emergency Preparedness Inspector, DRS, Region I (Lead)
W. Raymond, Senior Resident Inspector, DRP, Region I
R. Rolph, Health Physicist, DRS, Region I
C. Crisden, Emergency Preparedness Inspector, DRS, Region I
R. Montgomery, Acting Resident Inspector, DRP, Region I

Approved by: James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000443/2012503; 4/16/2012-4/19/2012; Seabrook Station, Unit 1; Exercise Evaluation.

This was an announced inspection conducted by four region-based inspectors and one resident inspector. One finding with the potential for greater than Green safety significance was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). The cross-cutting aspect was determined using IMC 0310, "Components Within the Cross Cutting Areas." Findings for which the SDP does not apply maybe Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Emergency Preparedness

- **Preliminary White.** The NRC identified an apparent violation (AV) for the licensee's exercise critique process not properly identifying a weakness associated with a risk-significant planning standard (RSPS) that was determined to be a Drill/Exercise Performance (DEP) Performance Indicator (PI) opportunity failure during a full-scale exercise. The AV is associated with emergency preparedness planning standards 10 CFR 50.47(b)(14) and 10 CFR 50.47(b)(5) and the requirements of Section IV.F.2.g of Appendix E to 10 CFR Part 50. This finding was entered into the licensee's corrective action program.

The failure of NextEra to identify the exercise weakness related to an incorrect protective action recommendation (PAR) notification during their exercise critique was a performance deficiency that was reasonably within NextEra's ability to foresee and prevent. The finding is more than minor because it is associated with the emergency response organization attribute of the Emergency Preparedness Cornerstone and affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding was determined to potentially have greater-than-Green safety significance because the licensee's exercise critique process did not properly identify a weakness associated with a RSPS that was determined to be a DEP PI opportunity failure during a biennial full-participation exercise. The finding is related to the cross-cutting area of Problem Identification and Resolution, Corrective Action Program, in that NextEra personnel did not identify a RSPS issue completely, accurately, and in a timely manner commensurate with the safety significance [P.1(a)]. Specifically, during the biennial full-participation exercise evaluation Next Era failed to identify a weakness. (Section 1EP1)

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01 – 1 Sample)

a. Inspection Scope

Prior to the April 17, 2012, emergency preparedness 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 10 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 performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) described in 10 CFR 50.47(b)(4), (5), (9), and (10), which are: emergency classification; offsite notification; radiological assessment; and protective action recommendations, respectively.
- The overall adequacy of NextEra's Seabrook emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the Control Room Simulator, Operations Support Center (OSC), Technical Support Center (TSC), and Emergency Operations Facility (EOF).
- A review of other performance areas, such as: the Seabrook emergency response organization's (ERO's) 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 17, 2012, exercise and to ensure compliance with 10 CFR 50.47(b)(14).
- The licensee's post-exercise critiques, to evaluate NextEra's self-assessment of its ERO performance during the April 17, 2012, exercise and to ensure compliance with 10 CFR 50, Appendix E, Section IV.F.2.g.

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

b. Findings

Introduction. The NRC identified a preliminary white significance apparent violation associated with emergency preparedness planning standards 10 CFR 50.47(b)(14) and 10 CFR 50.47(b)(5) and the requirements of Section IV.F.2.g of Appendix E to 10 CFR Part 50. Specifically, NextEra staff did not identify a deficiency related to a risk significant planning standard (RSPS) during their critique following the full-participation emergency emergency preparedness exercise.

Description. On April 17, 2012, the NRC inspection team observed the NextEra Seabrook full scale emergency planning exercise. For the exercise, the Emergency Operating Facility (EOF) Coordinator held the dual responsibility as the lead dose assessor for PAR preparation and as the offsite notification communicator. At 1115, the licensee declared a General Emergency (GE) in the exercise due to a simulated large break loss of coolant accident. The EOF Coordinator initiated action to develop the required PAR and associated offsite notification form. This included verification of the status of any radiological release that might be occurring from the site. As part of that process, he requested the meteorological tower lower elevation wind direction from the dose assessment team. Station procedures required that the lower elevation wind direction be used for no-release conditions, which the EOF Coordinator believed was the case. If the licensee had been aware that a release was in progress, the procedure would have directed the EOF Coordinator to use the upper elevation wind direction to develop the PAR. In response to the EOF Coordinator request, the EOF dose assessment staff, which also did not recognize a release was in progress, incorrectly provided the upper elevation wind direction (81-degrees) instead of the lower elevation wind direction (146-degrees). The EOF Coordinator used the upper elevation wind direction to develop the PAR, thinking he was using the lower wind direction. At 1128, the EOF Coordinator notified the State Emergency Operation Centers of the GE and the PAR. The EOF Coordinator believed he was notifying the States of a PAR for no release in progress, but because of the EOF dose assessment error of providing the wind direction used for release conditions, the PAR was actually correct per the exercise scenario (i.e., a release was occurring). The radiological release condition was, however, inaccurately reported on the notification form as "A radiological release has not occurred."

The licensee's critique, conducted on April 17-19, 2012, determined that the notification of the GE and the initial PAR was successful due to the notified PAR being the PAR anticipated by the scenario. The critique did not identify the error in the description of release status contained on the notification form or the error made by the EOF Coordinator and the dose assessment staff in assessing the meteorological conditions that existed when the initial PAR was developed. NextEra counted the offsite notification associated with the initial GE declaration as a successful Drill and Exercise Performance (DEP) performance indicator (PI) opportunity.

The inspectors identified a performance deficiency involving the failure by the licensee to identify a RSPS weakness associated with the errors on the offsite notification form and

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the errors involved in the development of the PAR, which was determined to be a DEP PI opportunity failure. A weakness, as defined by the NRC in the Emergency Preparedness Significance Determination Process (Appendix B to IMC 0609), is a level of ERO performance demonstrated during an exercise that would preclude effective implementation of the Emergency Plan, if the weakness were to occur during an actual emergency. Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Guideline," states that for a DEP PI opportunity to be successful, the release status must be correctly indicated on the notification form, which was not the case for this notification.

When the inspector described the observed performance deficiencies at the exit meeting following the licensee's critique, NextEra initiated Action Report (AR) 01766946 to investigate the discrepancies and place the NRC's findings in the Seabrook corrective action program

Analysis. The inspection team determined that the failure by NextEra to identify the exercise weakness related to the PAR notification during their exercise critique was a performance deficiency that was reasonably within their ability to foresee and prevent. The finding is more than minor because it is associated with the emergency response organization (ERO) attribute of the Emergency Preparedness Cornerstone and affected the cornerstone objective to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. Specifically, the failure of NextEra personnel to effectively identify an exercise weakness associated with a RSPS caused a missed opportunity to identify and correct an exercise-related performance deficiency.

The inspectors assessed the more significant issue, related to the failure to accurately communicate the radiological release status on the notification form, using the Emergency Preparedness Significance Determination Process (Appendix B to IMC 0609) and preliminarily determined the finding to be of low to moderate safety significance (White). A loss of planning standard (PS) function occurred when the exercise critique process failed to identify a weakness associated with a RSPS that is determined by the NRC to be a DEP PI opportunity failure during a full-participation exercise. NextEra's failure to critique the inaccurate notification met the NRC's definition of a weakness that was a DEP PI opportunity failure in a full-participation exercise and is considered a loss of PS function and a white finding. Appendix B to IMC 0609, Section 5.14, Figure 5.14-1 and Table 5.14-2, was used to reach this preliminary determination.

The finding is related to the cross-cutting area of Problem Identification and Resolution, Corrective Action Program, in that NextEra personnel did not identify a RSPS issue completely, accurately, and in a timely manner commensurate with the safety significance [P.1(a)]. Specifically, during the biennial exercise evaluation, Next Era failed to recognize and critique that a RSPS was not met and did not place this issue into the corrective action program until prompted by the NRC team's findings.

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Enforcement. Title 10 of the Code of Federal Regulations (CFR), Section 50.54(q)(2) requires, in part, that a licensee shall follow and maintain the effectiveness of an emergency plan that meets the requirements in appendix E to this part and, for nuclear power reactor licensees, the planning standards of § 50.47(b).

10 CFR 50.47(b)(14) requires, in part, that periodic exercises be conducted to evaluate major portions of emergency response capabilities and that deficiencies identified as a result of exercises are corrected.

Section IV.F.2.g of Appendix E to 10 CFR Part 50 requires that all training, including exercises, shall provide for formal critiques in order to identify weak or deficient areas that need correction. Any weaknesses or deficiencies that are identified shall be corrected.

Contrary to the above, during the April 19, 2012, critique of the April 17, 2012, Seabrook Station biennial emergency preparedness exercise, NextEra did not identify a performance weakness. Specifically, NextEra did not identify as a weakness that: 1) an inaccurate notification concerning the status of radiological releases from the site had been made to the required State response organizations; and, 2) an incorrect wind direction indication had been requested for determining the appropriate PAR.

Pending determination of the final safety significance, this finding with the associated apparent violation will be tracked as **AV 05000443/2012503-001, Failure of Exercise Critique to identify a RSPS Weakness as a DEP PI Opportunity Failure.**

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator (PI) Verification (71151 – 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the Seabrook EP PIs, which are: (1) Drill and Exercise Performance (DEP); (2) Emergency Response Organization (ERO) Drill Participation; and, (3) Alert and Notification System (ANS) Reliability. The last NRC EP inspection at Seabrook was conducted in the fourth calendar quarter of 2011, so the inspectors reviewed supporting documentation from EP drills, training records, and equipment tests from the fourth calendar quarter of 2011 through the first quarter of 2012, 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 6.

This inspection activity represented the completion of three samples.

b. Findings

No findings were identified.

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4OA6 Meetings, including Exit

On April 19, 2012, the inspectors presented the results of this inspection to Mr. P. Freeman, Seabrook Site Vice President, and other members of the NextEra staff. No proprietary information was provided to the inspectors during this inspection.

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ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

P. Freeman, Site Vice President
D. Currier, Emergency Preparedness Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000443/2012503-001	AV	Failure of Exercise Critique to Identify an RSPS Weakness as a DEP PI Opportunity Failure
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LIST OF DOCUMENTS REVIEWED

Section 1EP1: Exercise Evaluation

Seabrook April 17, 2012, Emergency Exercise Data Package
Seabrook Station Radiological Emergency Plan, Revision 59
Seabrook Station Emergency Response Manual, Revision 120
Seabrook Emergency Response Drill Reports, January 2011 – April 2012
ER 1.1, Classification of Emergencies, Revision 50
ER 1.2, Emergency Plan Activation, Revision 57
ER 2.0, Emergency Notification Documentation Forms Procedure, Revision 34
ER 3.1, Technical Support Center Operations, Revision 52
ER 3.2, Operations Support Center Operations, Revision 45
ER 3.3, Emergency Operations Facility Operations, Revision 48
ER 4.3, Radiation Protection During Emergency Conditions, Revision 29
ER 5.4, Protective Action Recommendations, Revision 32
ER 5.7, Initial Offsite Dose Projection, Revision 33
Action Report 01766946

Section 4OA1: Performance Indicator Verification

EPDP-03, Emergency Preparedness Performance Indicators, Revision 21
ERO Drill Participation PI data, October 2011 – March 2012
Alert Notification System PI data, October 2011 – March 2012
DEP PI data, October 2011 – March 2012

LIST OF ACRONYMS

AR	Action Request
ANS	Alert and Notification System
AV	Apparent Violation
CFR	Code of Federal Regulations
DEP	Drill and Exercise Performance
EAL	Emergency Action Level
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
GE	General Emergency
IMC	Inspection Manual Chapter
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PI	Performance Indicator
PS	Planning Standard
RSPS	Risk Significant Planning Standard
SDP	Significance Determination Process
TSC	Technical Support Center