



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

September 12, 2018

Mr. Mano Nazar
President and Chief Nuclear Officer, Nuclear Division
NextEra Energy Seabrook, LLC
Mail Stop: EX/JB
700 Universe Blvd.
Juno Beach, FL 33408

**SUBJECT: SEABROOK STATION, UNIT NO. 1 – NRC BIENNIAL PROBLEM
IDENTIFICATION AND RESOLUTION INSPECTION REPORT
05000443/2018010**

Dear Mr. Nazar:

On August 9, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Seabrook Station, Unit No. 1. The NRC inspectors discussed the results of this inspection with Mr. Eric McCartney, Vice President – Northern Region and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspection team reviewed the station's corrective action program (CAP) and the station's implementation of the program to evaluate Seabrook station's effectiveness in identifying, prioritizing, evaluating and correcting problems, and to confirm that the station was complying with NRC regulations and licensee standards for CAPs. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

The team also evaluated the station's processes for use of industry and NRC operating experience information and the effectiveness of the station's audits and self-assessments. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

Finally, the team reviewed the station's programs to establish and maintain a safety-conscious work environment, and interviewed Seabrook station personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of these interviews the team found no evidence of challenges to your organization's safety-conscious work environment. Your employees appeared willing to raise nuclear safety concerns through at least one of the several means available.

The NRC inspectors did not identify any finding or violation of more than minor significance.

M. Nazar

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Sincerely,

/RA/

Fred L. Bower, III, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket Number: 50-443

License Number: NPF-86

Enclosure:

Inspection Report 05000443/2018010

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SUBJECT: SEABROOK STATION, UNIT NO. 1 – NRC BIENNIAL PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT 05000443/2018010 DATED SEPTEMBER 12, 2018

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 50-443

License Number: NPF-86

Report Number: 05000443/2018010

Enterprise Identifier: I-2018-010-0062

Licensee: NextEra Energy Seabrook, LLC (NextEra)

Facility: Seabrook Station, Unit No. 1 (Seabrook)

Location: Seabrook, NH

Inspection Dates: July 23, 2018 to August 9, 2018

Inspectors: C. Lally, Project Engineer, Team Lead
P. Meier, Seabrook Resident Inspector
C. Highley, Millstone Resident Inspector
E. Allen, Project Engineer

Observer: S. Ghrayeb, Project Engineer

Approved By: F. Bower, III, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring NextEra's performance at Seabrook by conducting the biennial problem identification and resolution inspection in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

Based on the samples selected for review, the inspection team concluded that NextEra was effective in identifying, evaluating, and resolving problems and that NextEra effectively used operating experience and self-assessments. The inspectors found no evidence of significant challenges to NextEra's safety conscious work environment at Seabrook and concluded that NextEra staff are willing to raise nuclear safety concerns through at least one of the several means available.

No findings or more-than-minor violations were identified.

INSPECTION SCOPES

This inspection was conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess NextEra's performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards."

OTHER ACTIVITIES – BASELINE

71152 - Problem Identification and Resolution

Biennial Team Inspection (1 Sample)

The inspectors performed a biennial assessment of NextEra's corrective action program, use of operating experience, self-assessments and audits, and safety conscious work environment. The assessment is documented below.

- (1) Corrective Action Program Effectiveness – The inspection team evaluated NextEra's effectiveness in identification, prioritization and evaluation, and correcting problems, and verified the station was complied with NRC regulations and NextEra's standards for corrective action programs.
- (2) Operating Experience – The team evaluated the station's effectiveness in its use of industry and NRC operating experience information and verified the station complied with NextEra's standards for the use of operating experience.
- (3) Self-Assessments and Audits – The team evaluated the effectiveness of the station's audits and self-assessments and verified the station complied with NextEra's standards for the use of self-assessments and audits.
- (4) Safety Conscious Work Environment – The team reviewed the station's programs to establish and maintain a safety-conscious work environment, and interviewed station personnel to evaluate the effectiveness of these programs.

INSPECTION RESULTS

Evaluation of the Seabrook PI&R Program	71152B
<p>The NRC inspection team reviewed Seabrook station's corrective action program and the station's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating and correcting problems, and to confirm that the station was complying with NRC regulations and licensee standards for corrective action programs. Based on the samples reviewed, the team determined NextEra staff's performance in each of these areas adequately supported nuclear safety. No findings or more-than-minor violations were identified.</p> <p>The team also evaluated the station's processes for use of industry and NRC operating experience information and the effectiveness of the station's audits and self-assessment. Based on the samples reviewed, the team determined that NextEra's performance in each of these areas adequately supported nuclear safety.</p> <p>Finally, the team reviewed the station's programs to establish and maintain a safety-conscious work environment, and interviewed Seabrook station personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of those interviews, the team found no evidence of challenges to NextEra's safety-conscious work environment. Site employees appeared willing to raise nuclear safety concerns through at least one of the several means available.</p>	

Observation and Minor Performance Deficiency	71152B
<p>Corrective Action Program: The inspectors noted that out of service analytical chemistry equipment was not being documented in the corrective action program through the initiation of condition reports (CRs). The chemistry equipment deficiencies were being tracked in the chemistry department logs, but were not entered into the corrective action program.</p> <p>Minor Performance Deficiency: The initiation of CRs for out of service chemistry equipment is required by NextEra procedure CS 0904.04, "Laboratory Instrument Control Charts," and occurred multiple times during the period of January 2017 to July 2018. The station has documented this in the corrective action program under CR 2275048.</p> <p>Screening: The failure to implement a procedural requirement had no safety impact under the given situation. Specifically, no out of service laboratory equipment was used to perform analysis to support technical specification requirements, redundant analytical equipment remained available, and no technical specification required samples were missed. Therefore, this performance deficiency is minor.</p>	

EXIT MEETINGS AND DEBRIEFS

On August 9, 2018, the inspectors presented the biennial problem identification and resolution inspection results to Mr. Eric McCartney, Vice President – Northern Region, and other members of the NextEra staff. Inspectors verified no proprietary information was retained or documented in this report.

DOCUMENTS REVIEWED**71152B**Procedures

AD-AA-103, Nuclear Safety Culture Program, Revision 12
 CD0913.06, Grab Sample Technique, Revision 10
 CS0924.06, Total Particulate Contamination in Emergency Diesel Fuel Oil, Revision 8
 CS0904.04, Laboratory Instrument Control Charts, Revision 15
 EN-AA-203-1001, Operability Determinations and Functionality Assessment, Revision 30
 ER-AA-100-2002, Maintenance Rule Program Administration, Revision 6
 ER-AA-101, Equipment Reliability, Revision 8
 EX1806.001, RPS and ESF AS Response Time Summation Procedure, Revision 11
 LX0563.02, Reactor Coolant Pump Undervoltage Channel Calibration and Relay PM,
 Revision 17
 MS0535.11, Equipment Hatch Missile Shield Removal and Installation, Revision 5
 NA-AA-200-1000, Employee Concerns Program, Revision 1
 OS1426.12, Diesel Generator A and B Weekly and Monthly Surveillances,
 Revisions 11, 12, and 25
 Steam Generator Reference Leg Fill and Transmitter Venting IN1640.920 Revision 0
 OX0443.01, Diesel Fire Pump Weekly Test, Revision 16
 OX1406.12 18 Month Containment and Containment Spray Recirculation Sump Surveillance,
 Revision 9
 OX1406.12 18 Month Containment and Containment Spray Recirculation Sump Surveillance,
 Revision 14
 OX1426.27, DG 1B Semiannual Operability Surveillance, Revision 28
 PI-AA-101-1000, Level 2 Independent Assessment, Revision 20
 PI-AA-102, Operating Experience Program, Revision 14
 PI-AA-104-1000, Condition Reporting, Revision 17
 Seabrook Station Administrative Procedure, Classification of Emergencies ER 1.1 Revision 59
 Seabrook Station Administrative Procedure, Classification of Emergencies ER 1.1 Revision 56
 Seabrook Quality Assurance Topical Report, Revision 21
 Seabrook Station Quality Assurance Manual, Revision 54

Condition Reports (*initiated in response to inspection)

1668314	1934562	1942006	1962214	2022462	2026407
2030152	2040165	2044627	2044707	2049737	2063732
2065314	2069062	2069607	2069801	2075739	2076893
2083685	2092608	2097375	2098733	2100147	2100186
2100199	2100232	2100565	2100572	2100742	2100795
2100846	2101155	2102315	2102565	2103817	2105712
2108355	2108372	2109563	2112715	2113205	2115492
2115531	2124899	2124957	2127066	2127145	2129116
2129382	2132014	2132503	2133415	2135666	2135775
2135836	2136567	2137152	2138579	2142754	2147795
2147873	2148431	2149225	2150494	2153195	2158282
2158283	2158290	2158291	2168202	2169614	2170509
2172204	2182279	2187577	2191791	2196114	2197408
2199166	2199196	2199340	2199855	2200100	2200254
2200705	2201450	2202358	2202648	2207372	2207905
2213342	2213584	2215058	2216373	2221606	2222634

2227559	2232291	2236176	2239906	2242073	2242592
2243460	2245862	2260177	2261891	2266072	2267214
2268628	2269068	2272373	2272500	2272682	2273163*
2273177*	2273276*	2273387*	2273426*	2273474*	2273521*
2273570*	2273594*	2273613*	2273628*	2273656*	2273659*
2273670*	2273685*	2273974*	2274830*	2275048*	2275282*

Work Orders/Work Requests

40132620	40228569	40264381	40265516	40287160	40308888
40316168	40322466	40346955	40422993	40427609	40432772
40441339	40451124	40465916	40505649	40533840	40561380
40563191	40563236	40563259	40563265	40563271	40563283
40563350	40586631	40593072	94139510	94143377	94162598

Calculations

ES-4.003, 125 Volt DC Short Circuit and System Voltage Drop Calculation, Revision 10

Evaluations

2019628	2076893	2092608	2097062	2102315	2103429
2105636	2106893	2114495	2115215	2115331	2116669
2119394	2120131	2124898	2124957	2125151	2129382
2137168	2140612	2156562	2158284	2169614	2172204
2197408	2199855	2200623	2200705	2202923	2207011
2210450	2239906	2223905	2236037	2242520	2248447

Drawings

211630-B-9532 Sheet 1, No. 1 Unit No. 1A, 1B and 1C Vital Buses Safeguard Equipment Control System Schematic Controls, Revision 8

Operating Experience

70077135, NRC Information Notice 2007-36 EDG Volt Regulator, dated May 16, 2008

2024905	2026947	2065778	2083865	2112715	2132520
2136567	2199219	2222634	2265706		

Self-Assessment and Audits

90277135, Operability Evaluation Focused Area Self-Assessment, dated May 16, 2010
 Operating Experience Summary, Manual Reactor Trip in Response to a Feedwater Isolation Due to High Level in Steam Generator 'B' Seabrook Station – April 29, 2017 (CR 2202358)
 OR16 Steam Generator Tube Inspection Report SBK-L-14190, dated October 14, 2014
 OR17 Steam Generator Tube Inspection Report SBK-L-16058, dated April 22, 2016
 OR18 Steam Generator Tube Inspection Report SBK-L-17166, dated October 17, 2017
 SBK-16-003 SBK-16-005 SBK-17-005 SBK-17-008

Miscellaneous

Chemistry logs from January 2017 to July 2018
 Structural Integrity Associates, Inc. Report 1600052.401.R0