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

July 25, 2013

Mr. Kevin Walsh
Site Vice President
Seabrook Nuclear Power Plant
NextEra Energy Seabrook, LLC
c/o Mr. Michael Ossing
P.O. Box 300
Seabrook, NH 03874

SUBJECT: SEABROOK STATION, UNIT NO. 1 - NRC INTEGRATED INSPECTION REPORT 05000443/2013003

Dear Mr. Walsh:

On June 30, 2013, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at Seabrook Station, Unit No. 1. The enclosed inspection report documents the inspection results, which were discussed on July 18, 2013, 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.

Based on the results of this inspection, no findings were identified.

In accordance with 10 Code of Federal Regulations (CFR) 2.390 of the NRCs "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's Public Document Room or from the Publicly

Available Records (PARS) component of the NRC's Agencywide Documents Access Management System (ADAMS). ADAMS is accessible from the NRC website at http://www.nrc.gov/reading-rm/adams.htmL (the Public Electronic Reading Room).

Sincerely,

/RA Richard S. Barkley Acting for/

Glenn T. Dentel, Chief
Reactor Projects Branch 3
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000443/2013003
w/ Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-443
License No.:	NPF-86
Report No.:	05000443/2013003
Licensee:	NextEra Energy Seabrook, LLC
Facility:	Seabrook Station, Unit No.1
Location:	Seabrook, New Hampshire 03874
Dates:	April 1, 2013 through June 30, 2013
Inspectors:	P. Cataldo, Senior Resident Inspector M. Jennerich, Resident Inspector P. McKenna, Acting Senior Resident Inspector R. Montgomery, Acting Resident Inspector F. Arner, Senior Reactor Engineer B. Dionne, Senior Health Physicist J. Laughlin, EP Inspector, NSIR
Approved by:	Glenn T. Dentel, Chief Reactor Projects Branch 3 Division of Reactor Projects

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SUMMARY

IR 05000443/2013003; 04/01/2013-06/30/2013; Seabrook Station, Unit No. 1; Routine Integrated Inspection Report.

This report covered a three-month period of inspection by resident inspectors and announced inspections performed by regional inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4.

No findings were identified.

REPORT DETAILS

Summary of Plant Status

Seabrook operated at full power at the start of the period. The plant reduced power to 94% for planned testing of the main control valves on June 3, 2013 and returned to 100% later in the day. Seabrook operated at full power for the remainder of the period. Documents reviewed for each section of this inspection report are listed in the Attachment.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 2 samples)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors performed a review of NextEra's readiness for the onset of seasonal high temperatures. The review focused on the service water (SW) pump house and the emergency diesel generators (EDGs). The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), technical specifications (TSs), control room logs, and the corrective action program (CAP) to determine specific temperatures or other seasonal weather that could challenge these systems, and to ensure NextEra personnel had adequately prepared for these challenges. The inspectors reviewed station procedures, including NextEra's seasonal weather preparation procedure and applicable operating procedures. The inspectors performed walkdowns of the selected systems to ensure station personnel identified issues that could challenge the operability of the systems during hot weather conditions.

b. Findings

No findings were identified.

.2 Summer Readiness of Offsite and Alternate Alternating Current (AC) Power Systems

a. Inspection Scope

The inspectors performed a review of plant features and procedures for the operation and continued availability of the offsite and alternate AC power system to evaluate readiness of the systems prior to seasonal high grid loading. The inspectors reviewed NextEra's procedures affecting these areas and the communication protocols between the transmission system operator and NextEra. This review focused on changes to the established program and material condition of the offsite and alternate AC power equipment. The inspectors assessed whether NextEra established and implemented appropriate procedures and protocols to monitor and maintain availability and reliability of both the offsite AC power system and the onsite alternate AC power system. The

inspectors evaluated the material condition of the associated equipment by interviewing New Hampshire Transmission and NextEra personnel, reviewing the 345 kilovolt (kV) system health report, reviewing condition reports (CRs) and applicable work orders (WOs), and walking down portions of the offsite and onsite AC power systems, including the 345 kV onsite switchyard and components, and the 345 kV termination area that contains the three offsite transmission lines and associated equipment.

b. Findings

No findings were identified.

1R04 Equipment Alignment

Partial System Walkdowns (71111.04Q – 4 samples)

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- 'A' primary component cooling water (PCCW) pump during maintenance of the 'C' PCCW pump, on April 12, 2013
- 'B' containment building spray (CBS) pump during maintenance of the 'A' CBS pump and motor, on April 15, 2013
- 'B' control building air handling (CBA) air conditioning during testing of the 'A' CBA, on April 17, 2013
- 'A' EDG with 'B' EDG out of service (OOS) due to emergent maintenance on May 8, 2013

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed applicable operating procedures, system diagrams, the UFSAR, TSs, WOs, CRs, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted system performance of their intended safety functions. The inspectors also performed field walkdowns of accessible portions of the systems to verify system components and support equipment were aligned correctly and were operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no deficiencies. The inspectors also reviewed whether NextEra staff had properly identified equipment issues and entered them into the CAP for resolution with the appropriate significance characterization.

b. Findings

No findings were identified.

1R05 Fire Protection

Resident Inspector Quarterly Walkdowns (71111.05Q – 7 samples)

a. Inspection Scope

The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features. The inspectors verified that NextEra controlled combustible materials and ignition sources in accordance with administrative procedures. The inspectors verified that fire protection and suppression equipment was available for use as specified in the area pre-fire plan, and passive fire barriers were maintained in good material condition. The inspectors also verified that station personnel implemented compensatory measures for out of service, degraded, or inoperable fire protection equipment, as applicable, in accordance with procedures.

- Non-essential switchgear room on April 15, 2013
- Fire pump house on April 15, 2013
- Control building cable spreading room on April 15, 2013
- Control building mechanical room on April 15, 2013
- Security fire patrol duties on May 9, 2013
- 'B' EDG building on June 19, 2013
- Control building HVAC room on June 19, 2013

1R06 Flood Protection Measures (71111.06 – 1 sample)

Annual Review of Cables Located in Underground Bunkers/Manholes

a. Inspection Scope

The inspectors conducted an inspection of underground bunkers/manholes subject to flooding that contain cables whose failure could affect risk-significant equipment. The inspectors performed walkdowns of risk-significant areas, including manhole #6 and #12 containing offsite power cables from the start-up transformer. The inspectors verified water level in the sump and calculations to ensure that the cables were not submerged. The inspectors verified that the bunkers/manholes were dewatered in accordance with station procedures.

b. Findings

No findings were identified.

1R07 Heat Sink Performance (711111.07A – 1 sample)

a. Inspection Scope

The inspectors reviewed the 'B' EDG jacket water heat exchanger to determine its readiness and availability to perform its safety functions. The inspectors reviewed the design basis for the component and verified NextEra's commitments to NRC Generic Letter 89-13. The inspectors reviewed the results of previous inspections of the 'B' EDG jacket water heat exchanger. The inspectors discussed the results of the most recent inspection with engineering staff and reviewed pictures of the as-found and as-left conditions. The inspectors verified that NextEra initiated appropriate corrective actions

for identified deficiencies. The inspectors also verified that the number of tubes plugged within the heat exchanger did not exceed the maximum amount allowed.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11 – 2 samples)

.1 Quarterly Review of Licensed Operator Requalification Testing and Training

a. Inspection Scope

The inspectors observed licensed operator simulator training on May 1, 2013, which included a response to an airborne security event, a reactor trip and loss of offsite power. The inspectors evaluated operator performance during the simulated event and verified completion of risk-significant operator actions, including the use of abnormal and emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the control room supervisor. The inspectors verified the accuracy and timeliness of the emergency classification made by the shift manager and the TS action statements entered by the control room supervisor. Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems.

b. Findings

No findings were identified.

.2 Quarterly Review of Licensed Operator Performance in the Main Control Room

a. Inspection Scope

The inspectors observed and reviewed the Master Pressure Controller Failure (RC-PK-455A) on April 2, 2013 and Main Steam Isolation Valve testing on May 1, 2013. The inspectors verified operator response was in accordance with the abnormal operating procedures following a pressurizer heater controller failure. Additionally, the inspectors observed test performance to verify that procedure use, crew communications, and coordination of activities between work groups similarly met established expectations and standards.

a. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12 – 2 samples)

a. Inspection Scope

The inspectors reviewed the samples listed below to assess the effectiveness of maintenance activities on structure, system, and component (SSC) performance and reliability. The inspectors reviewed system health reports, CAP documents, maintenance WOs, and maintenance rule (MR) basis documents to ensure that NextEra was identifying and properly evaluating performance problems within the scope of the MR. For each sample selected, the inspectors verified that the SSC was properly scoped into the MR in accordance with 10 CFR 50.65 and verified that the (a)(2) performance criteria established by NextEra staff was reasonable. As applicable, for SSCs classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these SSCs to (a)(2). Additionally, the inspectors ensured that NextEra staff was identifying and addressing common cause failures that occurred within and across MR system boundaries.

- PCCW system on April 19, 2013
- MR Program Assessment on May 21, 2013

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 6 samples)

a. Inspection Scope

The inspectors reviewed station evaluation and management of plant risk for the maintenance and emergent work activities listed below to verify that NextEra performed the appropriate risk assessments prior to removing equipment for work. The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that NextEra personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When NextEra performed emergent work, the inspectors verified that operations personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work and discussed the results of the assessment with the station's probabilistic risk analyst to verify plant conditions were consistent with the risk assessment. The inspectors also reviewed the TS requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

- Planned maintenance on 1'B' battery and charger on April 8, 2013
- Planned maintenance on 1'C' battery on April 16, 2013
- Planned maintenance for supplemental emergency power system (SEPS) electrical preventative maintenance on April 23, 2013
- Emergent maintenance associated with the 'B' EDG on May 8, 2013
- Emergent maintenance on SEPS DG 2B coolant line failure on May 12, 2013
- Planned maintenance associated with train 'A' 125 VDC bus on May 16, 2013

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – 5 samples)

a. Inspection Scope

The inspectors reviewed operability determinations for the following degraded or non-conforming conditions:

- 11'C' PCCW pump oil entrained air and contaminants on April 8, 2013
- 'A' CBA chiller compressor repair on April 16, 2013
- 'A' EDG #1 cylinder glycol leak on April 19, 2013
- 'B' main steam isolation valve (MS-V-88) low hydraulic pressure on May 7, 2013
- 'B' PCCW head tank level instrument on June 24, 2013

The inspectors selected these issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the operability determinations to assess whether TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TSs and UFSAR to NextEra's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled by NextEra. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 5 samples)

a. Inspection Scope

The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedure to verify that the procedure adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure was consistent with the information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also witnessed the test or reviewed test data to verify that the test results adequately demonstrated restoration of the affected safety functions.

- Pressurizer heater controller failure on April 2, 2013
- 1-SW-V-176 SW vacuum breaker replacement on April 18, 2013

- 'B' EDG lube oil leak repair upstream of DG-V-31-B on May 8, 2013
- SEPS DG 2'A' coolant line retest on May 22, 2013
- 'C' atmospheric steam dump valve (1-MS-PV-3003) actuator replacement & calibration on June 11-12, 2013

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 6 samples)

a. Inspection Scope

The inspectors observed performance of surveillance tests and/or reviewed test data of selected risk-significant SSCs to assess whether test results satisfied TSs, the UFSAR, and NextEra procedure requirements. The inspectors verified that test acceptance criteria were clear, tests demonstrated operational readiness and were consistent with design documentation, test instrumentation had current calibrations and the range and accuracy for the application, tests were performed as written, and applicable test prerequisites were satisfied. Upon test completion, the inspectors considered whether the test results supported that equipment was capable of performing the required safety functions. The inspectors reviewed the following surveillance tests:

- 'A' containment spray pump group 'A' test on April 15, 2013
- DG fuel oil transfer pump flow verification on May 1, 2013
- 24 hr 'A' EDG surveillance on May 14, 2013
- Containment Air Handling 1-CAH-FV-6572 solenoid valve time response testing on May 15, 2013 (IST)
- 'B' engineered safety feature actuation system (ESFAS) slave relay (K641B) test on May 23, 2013
- 'B' EDG 24 hr endurance run on May 28-29, 2013

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes (71114.04 – 1 sample)

a. Inspection Scope

The Office of Nuclear Security and Incident Response staff performed an in-office review of the latest revisions of various Emergency Plan Implementing Procedures and the Emergency Plan located under ADAMS accession number ML13099A095 as listed in the Attachment.

The licensee determined that in accordance with 10 CFR 50.54(q), the changes made in the revisions resulted in no reduction in the effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06 – 1 sample)

Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine NextEra emergency drill on June 26, 2013 to identify any weaknesses and deficiencies in the classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the simulator and emergency operations facility to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the station drill critique to compare inspector observations with those identified by NextEra staff in order to evaluate NextEra's critique and to verify whether NextEra staff was properly identifying weaknesses and entering them into the CAP.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06 – 1 sample)

During May 21–25, 2013, the inspectors verified that gaseous and liquid effluent processing systems are maintained so radiological discharges are properly reduced, monitored, and released. The inspectors also verified the accuracy of the calculations for effluent releases and public doses.

The inspectors used the requirements in 10 CFR Part 20; 10 CFR50.35(a); 10 CFR Part 50, Appendix A - Criterion 60 Control of Release of Radioactivity to the Environment, and Criterion 64 Monitoring Radioactive Releases; 10 CFR 50 Appendix I Numerical Guides for Design Objectives and Limiting Conditions for Operations to Meet the Criterion "As Low as is Reasonably Achievable" for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents; 10 CFR 50.75(g) Reporting and Record-

keeping for Decommissioning Planning; 40 CFR Part 141 Maximum Contaminant Levels for Radionuclides; 40 CFR Part 190 Environmental Radiation Protection Standards for Nuclear Power Operations; Regulatory Guide (RG) 1.109 Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents; RG 1.21 Measuring, Evaluating, Reporting Radioactive Material in Liquid and Gaseous Effluents and Solid Waste; RG 4.1 Radiological Environmental Monitoring for Nuclear Power Plants; RG 4.15 Quality Assurance for Radiological Monitoring Programs; NUREG 1301 Offsite Dose Calculation Manual (ODCM) Guidance: Standard Radiological Effluent Controls; applicable Industry standards; technical specifications (TSs); and licensee procedures required by TSs/ODCM as criteria for determining compliance.

a. Inspection Scope

Inspection Planning and Program Reviews

Event Report and Effluent Report Reviews

The inspectors reviewed the Seabrook Station Radioactive Effluent Release Reports for 2011 and 2012 to determine if the reports were submitted as required by the ODCM/TSs. The inspectors reviewed anomalous results, unexpected trends, abnormal releases, and radioactive effluent monitor operability issues that were identified. The inspectors determined if these effluent results were evaluated, were entered in the CAP, and were adequately resolved.

Offsite Dose Calculation Manual (ODCM) and Updated Final Safety Analysis Report (UFSAR) Review

The inspectors reviewed Seabrook Station's UFSAR descriptions of the radioactive effluent monitoring systems, treatment systems, and effluent flow paths to identify system design features and required functions.

The inspectors reviewed changes to the Seabrook Station ODCM since the last inspection. The inspectors reviewed the technical basis or evaluations of the change and determined whether they were technically justified and maintained effluent releases As Low As Reasonably Achievable (ALARA).

The inspectors reviewed documentation to determine if any non-radioactive systems that have become contaminated were disclosed either through an event report or the ODCM. The inspectors reviewed selected 10 CFR 50.59 evaluations and made a determination if any newly contaminated systems had an unmonitored effluent discharge path to the environment. The inspectors also reviewed whether it required revisions to the ODCM to incorporate these new pathways and whether the associated effluents were reported in accordance with RG 1.21.

Groundwater Protection Initiative (GPI) Program

The inspectors reviewed reported groundwater monitoring results and changes to NextEra's program for identifying and controlling contaminated spills/leaks to groundwater.

Procedures, Special Reports, and Other Documents

The inspectors reviewed Licensee Event Reports and other reports related to the effluent program issued since the previous inspection to identify any additional focus areas for the inspection.

The inspectors reviewed effluent program implementing procedures, including those associated with effluent sampling, effluent monitor set-point determinations, and dose calculations.

The inspectors reviewed copies of NextEra and third party (independent) evaluation reports of the effluent monitoring program since the last inspection to gather insights into the effectiveness of the program.

Walkdowns and Observations

The inspectors walked down selected components of the gaseous and liquid discharge systems to verify that equipment configuration and flow paths align with the descriptions in the FSAR and to assess equipment material condition. Special attention was made to identify potential unmonitored release points, building alterations which could impact airborne, or liquid, effluent controls, and ventilation system leakage that communicate directly with the environment.

The inspectors reviewed effluent system material condition surveillance records for equipment or areas associated with the systems selected for review that were not readily accessible due to radiological conditions.

The inspectors walked down filtered ventilation systems to verify there are no degraded conditions associated with high efficiency particulate air /charcoal banks, improper alignment, or system installation issues that would impact the performance or the effluent monitoring capability of the effluent system.

The inspectors observed selected portions of the routine processing and discharge of radioactive gaseous effluent to verify that appropriate treatment equipment was used and the processing activities align with discharge permits. The inspectors determined that NextEra had not made any changes to their effluent release paths.

As available, the inspectors observed selected portions of the routine processing and discharge of liquid waste. The inspectors verified that appropriate effluent treatment equipment is being used and that radioactive liquid waste is being processed and discharged in accordance with procedures.

Sampling and Analyses

The inspectors selected five effluent sampling activities, and assessed whether adequate controls have been implemented to ensure representative samples were obtained.

The inspectors selected one effluent discharge made with inoperable effluent radiation monitors to verify that controls are in place to ensure compensatory sampling is performed consistent with the TSs/ODCM and that those controls are adequate to prevent the release of unmonitored liquid and gaseous effluents.

The inspectors determined whether the facility is routinely relying on the use of compensatory sampling in lieu of adequate system maintenance, based on the frequency of compensatory sampling since the last inspection.

The inspectors reviewed the results of the inter-laboratory and intra-laboratory comparison program to verify the quality of the radioactive effluent sample analyses. The inspectors also assessed whether the intra- and inter-laboratory comparison program includes hard-to-detect isotopes, as appropriate.

Instrumentation and Equipment

Effluent Flow Measuring Instruments

The inspectors reviewed the methodology used to determine the effluent stack and vent flow rates to verify that the flow rates are consistent with TSs/ODCM and FSAR values. The inspectors reviewed the differences between assumed and actual stack and vent flow rates to ensure that they do not affect the calculated results of public dose.

Air Cleaning Systems

The inspectors assessed whether surveillance test results for TS required ventilation effluent discharge systems meet TS acceptance criteria.

Dose Calculations

The inspectors reviewed all significant changes in reported dose values compared to the previous radioactive effluent release report to evaluate the factors which may have resulted in the change.

The inspectors reviewed four radioactive liquid and two gaseous waste discharge permits to verify that the projected doses to members of the public were accurate and based on representative samples of the discharge path.

Inspectors evaluated the methods used to ensure that all radionuclides in the effluent stream source term are included. The review included the current waste stream analyses to ensure hard-to-detect radionuclides are included in the effluent releases.

The inspectors reviewed changes in the methodology for offsite dose calculations since the last inspection to verify the changes are consistent with the ODCM and RG 1.109. The inspectors reviewed meteorological dispersion and deposition factors used in the ODCM and effluent dose calculations to ensure appropriate dispersion/deposition factors are being used for public dose calculations.

The inspectors reviewed the latest Land Use Census to verify changes that affect public dose pathways have been factored into the dose calculations and environmental sampling/analysis program.

The inspectors evaluated whether the calculated doses are within the 10 CFR Part 50, Appendix I and TS dose criteria. The inspectors did not review records of any abnormal gaseous or liquid tank discharges as none were available.

GPI Implementation

The inspectors reviewed the implementation of the voluntary Nuclear Energy Institute (NEI) GPI to determine if NextEra has implemented the Groundwater Protection Initiative effectively.

For anomalous results or missed samples, the inspectors assessed whether NextEra has identified and addressed deficiencies through its CAP.

The inspectors reviewed identified leakage or spill events and entries made into the decommissioning files. The inspectors reviewed evaluations of leaks or spills, and reviewed the effectiveness of any remediation actions. The inspectors reviewed onsite contamination events involving contamination of ground water and assessed whether the source of the leak or spill was identified and isolated/terminated.

For unmonitored spills, leaks, or unexpected liquid or gaseous discharges, the inspectors assessed whether an evaluation was performed to determine the type and amount of radioactive material that was discharged by: assessing whether sufficient radiological surveys were performed to evaluate the extent of the contamination and assessing whether a survey/evaluation has been performed; and determining whether NextEra completed offsite notifications, as provided in its GPI implementing procedures.

The inspectors assessed whether on-site ground water sample results and a description of any significant on-site leaks/spills into ground water for each calendar year are documented in the 2011 and 2012 Annual Radioactive Effluent Release Reports.

For significant, new effluent discharge points, such as significant or continuing leakage to ground water that continues to impact the environment, the inspectors evaluated whether the licensee's ODCM was updated to include the dose calculation method for the new release point and the associated dose calculation methodology. No new or abnormal effluent release points were found.

Problem Identification and Resolution

Inspectors assessed whether problems associated with the effluent monitoring and control program are being identified by the licensee at an appropriate threshold and are properly addressed for resolution in the licensee CAP. In addition, the inspectors evaluated the appropriateness of the corrective actions for a selected sample of problems documented.

b. Findings and Observations

No findings were identified.

One objective of the GPI was not met. No documentation exists to demonstrate that a review of the hydrology and geology information was performed to determine if an update to the FSAR is needed. NextEra Fleet Procedure EV-AA-100-1001 Fleet Groundwater Protection Program Implementing Guidelines, Revision 2, step 4.2 2.B c requires "Each site shall ensure that the Updated Final Safety Analysis Report is in agreement with the characteristics of the site hydrology and geology (NEI 07-07 1.1 e)". The Licensee updated the Seabrook Station Groundwater Completion Report on August 22, 2012. However, no documentation exists to demonstrate that a review of the hydrology and geology information was performed to determine if an update to FSAR is needed. NextEra Chemistry personnel generated a corrective action report AR 01876868 entitled SB GW Model Report needs to be reviewed to determine if there are changes necessary to the FSAR. Because the requirements of the GPI set forth in NextEra procedures and NEI 07-07 are considered voluntary, this issue is not a regulatory requirement. This failure to comply with the GPI review constitutes a minor issue that is not subject to enforcement action in accordance with the NRCs Enforcement Policy.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

Reactor Coolant System (RCS) Specific Activity and RCS Leak Rate (2 samples)

a. Inspection Scope

The inspectors reviewed NextEra's submittal for the RCS leak rate performance indicators for the period of May 1, 2012 through March 30, 2013, and RCS specific activity performance indicators for the period of July 1, 2012, through March 30, 2013. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors also reviewed RCS sample analysis and logs of daily measurements of RCS leakage and activity, and compared that information to the data reported by the performance indicator.

b. Inspection Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152 – 2 samples)

.1 Routine Review of Problem Identification and Resolution Activities

a. Inspection Scope

As required by Inspection Procedure 71152, "Problem Identification and Resolution," the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that NextEra entered issues into the CAP at an appropriate threshold, gave adequate attention to timely corrective actions, and identified and addressed adverse trends. In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the CAP and periodically attended condition report screening meetings.

b. Findings

No findings were identified.

.2 Annual Sample: Inadequate Testing of Emergency Feedwater (EFW) Actuation System Relays and Reactor Trip Breakers

a. Inspection Scope

The inspectors performed an in-depth review of NextEra's root cause evaluation associated with a self-identified test deficiency with respect to inadequate response time testing for the low-low steam generator (SG) level actuation signal for the 'B' EFW pump. The inspectors also reviewed the corrective actions associated with a NextEra identified test deficiency for inadequate response time testing of the shunt trip logic for the reactor trip breakers. These issues had been previously documented as licensee-identified non-cited violations (NCVs) of TS 6.7, "Procedures and Programs," within inspection reports 05000443/2012004 and 05000443/2012005, respectively. This sample was selected because test deficiencies can adversely impact the mitigating system cornerstone and to ensure that NextEra had adequately evaluated and corrected the issues in accordance with their CAP.

The inspectors assessed NextEra's root cause evaluation, extent-of-condition review, completed and proposed corrective actions, along with the prioritization and timeliness of actions to determine whether the corrective actions were appropriate. Additionally, the inspectors reviewed the technical adequacy of procedure changes performed to ensure that the test revisions appropriately addressed the response time test requirements for the two test deficiencies identified. Furthermore, the inspectors reviewed the most recent test data to ensure that the response times for the low-low SG level signal to the

'B' EFW pump actuation signal and the shunt trip for the reactor trip breakers were in accordance with the design requirements. The inspectors also assessed NextEra's planned corrective actions with regard to the extent-of-condition review of the test deficiencies.

b. Findings and Observations

No findings were identified.

The inspectors determined that NextEra's corrective actions in response to a previous deficiency identified with the testing for SG HI-HI level feedwater isolation response times, AR1633228, had appropriately identified related test issues. The motor-driven EFW pump must start and load within the time assumed in the accident analyses. Technical Requirements Manual (TRM) 2, (Engineered Safety Features (ESFs) Response Times) requires the pump to start and achieve its required discharge pressure within 77 seconds following initiation of a safety injection or SG water level low-low signal. The inspectors noted that testing must include the solid state protection system logic system output relays (K515 and K640) to ensure that response time requirements are met. However, NextEra identified that they had never verified the response time of these relays since they were initially tested in the 1986 timeframe. Therefore, the response time had not been adequately tested as required by the surveillance requirement for TS section 4.3.2.2. The inspectors determined that the root cause evaluation had identified the appropriate contributing causes and root cause of the insufficient processes in place during the development of response time test methods in the 1986 timeframe.

The inspectors reviewed the EFW issue along with the reactor trip breaker response time test deficiency to ensure that the focus on response time issues was appropriate and the concern did not extend to other areas of logic testing. The reactor trip breakers, 'RTA' and 'RTB' have two diverse trip methods. One uses an undervoltage trip signal and the other uses a shunt trip circuit. The shunt trip circuit has two relay coils and only one of the devices had been appropriately timed. The inspectors determined that the response time procedure revisions performed for the SG water level low-low EFW actuation signal and reactor trip breaker logic to correct the shunt trip response time testing issue were technically adequate. The inspectors determined that subsequent response time testing performed for the SG water level Engineered Safety Actuation Signal and reactor trip breaker signals showed adequate margins to the required design bases acceptance criteria. The inspectors also noted that NextEra had appropriately revised the ESF design bases document (DBD-ESF-01) to identify each specific component necessary to comply with the TS ESF actuation system functions. The inspectors determined that appropriate corrective actions were planned and in-progress to perform detailed reviews of drawings and circuits to ensure procedures adequately performed response time testing of all of the ESF actuation system functions. This review was also being performed to ensure response time testing of each reactor trip system function shown in TS Table 3.3-1 and the TRM 1, (Reactor Trip System Instrumentation Response Times) is adequate.

Based on the documents reviewed and discussions with engineering personnel, the inspectors determined that NextEra's response to the issue was commensurate with the safety significance and that actions completed and planned were reasonable to address the issues identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a semi-annual review of site issues, as required by Inspection Procedure 71152, "Problem Identification and Resolution," to identify trends that might indicate the existence of more significant safety issues. In this review, the inspectors included repetitive or closely-related issues that may have been documented by NextEra outside of the CAP, such as trend reports, major equipment problem lists, system health reports, MR assessments, and maintenance or CAP backlogs. The inspectors also reviewed NextEra's CAP database for the first and second quarters of 2013 to assess CRs written in various subject areas (equipment problems, human performance issues, etc.), as well as individual issues identified during the NRC's daily condition report review (Section 4OA2.1). The inspectors reviewed the NextEra station quarterly trend report for 2012 and first quarter 2013 to verify that NextEra personnel were appropriately evaluating and trending adverse conditions in accordance with applicable procedures.

b. Findings and Observations

No findings were identified.

The inspectors did not identify any trends that had not already been identified by NextEra. NextEra continues to identify procedural compliance issues in the Operations department as evident by recent operator errors that resulted in mispositioning a switch as documented in IR 05000433/2013002 and inadvertently actuating fire protection systems (AR 1841980 / AR 1840829). NextEra management identified this negative trend, and have actions in place to address the decline in performance. The inspectors will continue to assess this area for negative trends and performance improvement.

In the previous semi-annual trend review documented in IR 05000433/2012005, the inspectors noted an increased trend of anonymous ARs for 2012. NextEra conducted a common cause evaluation and concluded the increase in anonymous CRs was due to cultural shifts occurring at the plant leading to business related concerns. There was no negative safety conscious work environment identified. The inspectors did not identify a negative trend in this area.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153 - 1 sample)

(Closed) Licensee Event Report (LER) 05000443/2012-004-01: Manual Actuation of the SW Cooling Tower

On October 31, 2012, NextEra staff manually initiated a tower actuation that transferred the cooling water source for the 'A' train SW from the ocean to the cooling tower. This

actuation was in response to increased differential pressure across the SW strainer, indicating fouling of the strainer from ocean debris. The tower actuation was conducted in accordance with station procedures, and operators took appropriate actions based on the indications received. SW was returned to the normal supply on November 1, 2012. NRC IR0500443/2012005 closed out the original LER 2012-004-00 with no performance deficiencies identified.

The inspectors reviewed LER 2012-004-01 for any performance deficiencies and none were identified. LER 2012-004-01 updated the cause of the event following completion of a root cause evaluation. No performance deficiencies were identified. This LER is closed.

4OA5 Other Activities

.1 (Opened/Closed) NCV 05000443/2013003-01: NRC Letter, dated June 1, 2012 (ML12153A155), documented an NRC Office of Investigation (OI) review to determine whether a contractor electrician deliberately entered a high radiation area (HRA) without first receiving a health physics (HP) briefing on the current radiological conditions in accordance with site procedures required by NextEra's operating license (NRC Investigation Report Number 1-2011-038). The NRC concluded that the contractor electrician, who had been assigned to conduct work within an HRA, deliberately entered the HRA without first receiving the HP briefing on the current radiological conditions. That issue was being treated as an NCV. In order to facilitate entering this issue into the NRC's Plant Issues Matrix and assessment process, this issue was identified as **NCV 05000443/2013003-01, Tech Spec 6.10.1 Violation - Contractor Electrician Entered High Radiation Area Without Receiving Health Physics Briefing.**

.2 Follow-up Inspection for a Severity Level IV Traditional Enforcement Violation involving Deliberate Misconduct (92702)

a. Inspection Scope

The inspectors performed an in-office follow-up inspection for the SL IV Traditional Enforcement violation (EA-12-024) discussed in NRC Letter, dated June 1, 2012 (ML12153A155). That letter documented OI's determination that, specifically, a contractor electrician had been instructed to wait outside of the HRA boundary until an HP technician (HPT) knowledgeable on the current radiological conditions in the HRA could be located to provide the briefing. However, the contractor electrician crossed the HRA boundary and remained within the HRA for several minutes before the HPT arrived. The contractor electrician's actions caused NextEra to be in violation of its operating license. Specifically, Seabrook License Condition 2.C(2) requires NextEra to operate Seabrook in accordance with its TSs. TS 6.10.1 states, in part, that procedures for personnel radiation protection shall be adhered to for all operations involving personnel radiation exposure. NextEra implementing procedure HN0958.25, "High Radiation Controls," Revision 33, dated March 30, 2011, Section 4.1 requires, in part, that workers are briefed on the radiological conditions in the work area prior to being permitted access to an HRA.

In accordance with NRC IP 92702, "Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, and Alternate Dispute Resolution Confirmatory Orders," follow up inspection will be conducted on all traditional enforcement for willful violations.

The objectives of the inspection were to determine whether NextEra:

- Provided assurance that the cause of the violation is understood;
- Provided assurance that the generic implications have been addressed; and
- Provided assurance that licensee programs and practices have been appropriately enhanced to prevent recurrence.

The inspectors reviewed the condition report (01638564) as well as the corresponding assigned actions and relevant references. Additionally, the inspectors reviewed NextEra's Condition Identification and Screening Process (PI-AA-204) to verify that NextEra properly identified and completed their procedural requirements for such an issue. The inspectors also interviewed management and staff personnel who were familiar with the violation and participated in the evaluation or corrective actions.

b. Findings and Observations

No findings were identified.

The inspectors concluded that NextEra completed timely and adequate measures which clearly demonstrated an understanding of the issue. NextEra identified the issue as willful misconduct and a Radiation Work Permit violation, entered it into the CAP, and took appropriate action to inform the NRC. NextEra's immediate corrective actions included terminating the contract employee, removing him from the site, and ensuring that the utility data systems for site access were updated with details of the incident. Additional corrective actions included site wide communications, work group stand-downs and enhancements to site training with respect to the requirements for entering the radiological controlled area. The inspectors concluded that NextEra's corrective actions were sufficient to address the cause and prevent recurrence.

4OA6 Meetings, Including Exit

On July 19, 2013, the inspectors presented the inspection results to Kevin Walsh, Site Vice President, and other members of the Seabrook Station staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

T. Vehec, Plant General Manager
R. Arn, Emergency Diesel Generator System Engineer
S. Anderson, Chemistry Technician
J. Ball, Maintenance Rule Coordinator
J. Bean, Security Training
V. Brown, Senior Licensing Analyst
M. Chapmen, System Engineer
J. Colvin, Chemistry Technician
J. Connolly, Site Engineering Director
T. Cooper, Operations Leader, Nuclear Transmission group
B. Dean, Engineering
K. Douglas, Maintenance Director
P. Dullea, Principal Chemist Specialist
D. Flahardy, Radiation Protection Manager
M. Ginsberg, Access/FFD Coordinator
A. Guitas, Chemistry Specialist
G. Kim, PRA Engineer
B. Mc Allister, Waste Gas System Engineer
T. Millian, Fire Protection Training
S. Morrissey, Electrical Maintenance Supervisor
M. Ossing, Licensing Manager
S. Samstag, Seasonal Readiness Coordinator
D. Robinson, Chemistry Manager
G. Sessler, Principle Engineer
M. Strum, Principal Radiological Engineer, AREVA
T. Waechter, Special Projects Manager
W. Yinling, FIN Engineering

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Opened/Closed

05000443/2012-004-01	LER	Manual Actuation of the Service Water Cooling Tower (Section 4OA3.1)
05000443/2013003-01	NCV	Tech Spec 6.10.1 Violation – Contractor Electrician Entered High Radiation Area Without Receiving Health Physics Briefing (Section 4OA5.1)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

LN0561.107, Zone 7 SF_6 Moisture Content, Purity and SO_2 Sampling, Revision 2
ODI.89, Operations, Maintenance and Administrative Service Agreement, Revision 13
ON1490.09, Summer Readiness Surveillance, Revision 6
OP-AA-102-1002, Seasonal Readiness, Revision 1
OS1246.02, Degraded Vital AC Power (Plant Operating), Revision 14

Condition Reports

01857994 01857427

Maintenance Orders/Work Orders

40162616 40162909 40235420

Miscellaneous

Master/LCC Procedure No. 1, Attachment E – Nuclear Plant Interface Meetings, Revision 0
Switchyard System Health report (4/1/2013 – 6/30/2013)

Drawings

1-NHY-309825, 345kV Switching Station Equipment Single Line Diagram, Revision 23

Section 1R04: Equipment Alignment

Procedures

OS1006.04, Operation of the Containment Spray System, Revision 22
OS1012.03, Primary Component Cooling Water Loop 'A' Operation, Revision 21
OS1012.04, Primary Component Cooling Water Loop 'B' Operation, Revision 22
OS1023.51, Control Room Ventilation and Air Conditioning System Operation, Revision 18

Condition Reports

01863954 01865964

Maintenance Orders/Work Orders

40224284

Miscellaneous

Aligning DG 1'A' Controls for Auto Start

Drawings

1-CC-B20204, Primary Component Cooling Loop 'A' Overview, Revision 4
1-CC-B20205, Primary Component Cooling Loop 'A' Detail, Revision 24
1-CBA-B20308, Control Building Air Conditioning System Safety Related Chilled Water System Train 'B' Detail, Revision 7

Section 1R05: Fire Protection

Procedures

FP 4.1, Fire Protection Program Training and Qualification, Revision 9
GN1307.00, Foot Patrols, Revision 27
PF 2.4, Fire Watches and Fire Patrols, Revision 5
SDI0043.01, Routine Shift Responsibilities and Turnover, Revision 18
SDI0063.00, Security Task Validation, Revision 3

Condition Reports

01770783 *01866174 01869497

*NRC Identified

Miscellaneous

Seabrook Station Fire Protection Pre-Fire Strategies
Security Web based Fire Patrol Training

Section 1R06: Flood Protection Measures

Procedures

PEG-265, Cable Condition Monitoring Program, Revision 0

Condition Reports

01868922

Maintenance Orders/Work Orders

40186076 40187020

Section 1R07: Heat Sink Performance

Procedures

ES1850.017, Service Water Heat Exchanger Program, Revision 1

Maintenance Orders/Work Orders

40161405 40176788

Section 1R11: Licensed Operator Requalification Program

Procedures

OS1201.06, PZR Pressure Instrument/Component Failure, Revision 14
OS1290.04, Response to an Airborne Security Event, Revisions 9
OX1430.02, Main Steam Isolation Valve Quarterly Test, Revision 16

Maintenance Orders/Work Orders

40184738

Miscellaneous

Simulator Exercise Scenario, SBK LOP L354C, Security Event, Revision 0

Section 1R12: Maintenance Effectiveness

Condition Reports

01641839 01663260 01667470 01674910 01865150 01854250
01873510

Miscellaneous

PCCW MR Criteria
PCCW System Health Report for 4th Quarter 2012
Seabrook Station Periodic Assessment of MR Program, November 2009 through April 2011
Seabrook Station Periodic Assessment of MR Program, May 2011 through October 2012

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures

LS0556.72, Installation and Removal of Portable Battery Charger on 1-EDE-SWG-11-B, Revision 0
LX0556.06, Station Battery Charger Capacity Test, Revision 6
OP-AA-102-1003, Guarded Equipment, Revision 3
SM7.10, MR Program, Revision 1
WM 10.1, Online Maintenance, Revision 8
WM-AA-1000, Work Activity Risk Management Process, Revision 13

Condition Reports

01863799 018760098

Maintenance Orders/Work Orders

40184346 40184354 40185650 40191174 40235968 40235969
40236760 40237147 40237148

Miscellaneous

Work Week 1315-07 Risk Assessment
Work Week 1316-08 Risk Assessment

Section 1R15: Operability Determinations and Functionality Assessments

Procedures

DBD-CC-01, Seabrook Station Primary Component Cooling Water System, Revision 4
EN-AA-203-1001, Operability Determinations/Functionality Assessments, Revision 9
OS1023.51, Control Room Ventilation and Air Conditioning System Operation, Revision 20
OX1430.02, Main Steam Isolation valve Quarterly Test, Revision 16

Condition Reports

01855760 01855774 01863954 01865964 01872068 01873367
01882199

Maintenance Orders/Work Orders

40181831 40236681 40239913

Miscellaneous
NUREG 1022, Event Reporting Guidelines, Revision 2
Past Operability Review for AR 1855760, Revision 0
Seabrook Technical Specification 3.7.6.2, Control Room Subsystems – Air Conditioning
Seabrook Technical Specification 3.7.3, Primary Component Cooling Water System
UFSAR Chapter 7.6.8, Isolation of NNS Components in PCCW System

Drawings
D80-21863-01, Main Steam Isolation Valve Size 30 x 24 x 30 FIG 1911(WCC) BGJMMNPQTY with Model A-260 Gas-Hydraulic Actuator, Actuator Control Schematic, Revision J

Section 1R19: Post-Maintenance Testing
Procedures
DG 1B Engine Lube Oil System Draining, Filling, and Venting, Revision 2
OX1416.05, Service Water Cooling Tower Pumps Quarterly and 2 Year Comprehensive Test, Revision 17
OX1461.03, SEPS Operational Readiness Status Surveillance, Revision 01

Condition Reports
01862275 01876098

Maintenance Orders/Work Orders
40182939 40233620 40236760 40244778 40108191 40108192
40247946 40190168 40194797 40201575

Miscellaneous
Diesel Generator Stability 30 Second Report – DG B
Work report 94075673

Section 1R22: Surveillance Testing
Procedures
IX1605.013, IST Solenoid Valve Time Response Testing, Revision 2
OX1406.02, Containment Spray Pump and Valve Quarterly Operability, 18 Month Position Indication and Comprehensive Pump Testing, Revision 17
OX1423.26, Quarterly Containment Ventilation Valve Testing, Revision 8
OX1426.05, DG 1B Monthly Operability Surveillance, Revision 27
OX1426.22, Emergency Diesel Generator 1‘A’ 24 Hour Load Test and Hot Restart Surveillance, Revision 14
OX1426.23, Emergency Diesel Generator 1‘B’ 24 Hour Load Test and Hot Restart Surveillance, Revision 13
OX1426.33, Diesel Generator Fuel Oil Transfer Pumps Flow Verification 18 Month Surveillance, Revision 3
OX1456.87, Train ‘B’ ESFAS Slave Relay K641B Quarterly Go Test, Revision 2

Condition Reports
01682669 01866179

Maintenance Orders/Work Orders
40173037 40181830 40191177 40243405

Section 1EP4: Emergency Action Level and Emergency Plan Changes
Procedures
ER 1.1, Classification of Emergencies, Revision 53

Section 1EP6: Drill Evaluation
Procedures
ER 1.1, Classification of Emergencies, Revision 53
ER 1.1A, Emergency Initiating Condition Matrix, Modes 1, 2, 3 and 4, Revision 46
ER 1.1C, Fission Product Barrier Degradation Matrix, Modes 1, 2, 3 and 4, Revision 46
ER 2.0C, Follow-Up Information Form – Forecast Model, Revision 24
ER 2.0D, Event Notification Worksheet, Revision 32
ER 3.3, Emergency Operations Facility Operations, Revision 49
ER 5.3, Operation of the Raddose-V, Revision 29
ER 5.4, Protective Action Recommendations, Revision 32
ER 5.7, Initial Offsite Dose Projection, Revision 34

Condition Reports
01885326 01885337 01885360 1885543 1885545 1885568

Miscellaneous
GN1332.00, Security Response to a Declared Radiological Emergency, Revision 41
Seabrook Station Drill Guide for 6/26/13 Evaluated Drill
Seabrook Station Radiological Emergency Response Plan, Revision 41

Section 2RS06: Radioactive Gaseous and Liquid Effluent Treatment
Procedures:
CD0904.11, Split and Cross Check Analysis, Revision 5
CD0917.04, Monitoring of Plant Systems for Radioactivity, Revision 3
CDI-015, Sampling of Groundwater Monitoring Wells, Revision 2
CP 3.1, Primary Chemistry Control, Revision 38
CP 3.2, Secondary Chemistry Controls Program, Revision 37
CP 3.3, Miscellaneous System Closed Cooling Water Surveillances, Revision 26
CP 4.1, Effluent Surveillance Program, Revision 24
CP 8.1, Verification of Analytical Systems Performance, Revision 23
CS0908.01, Off-site Dose Assessment, Revision 15
CS0908.02, RDMS Setpoints, Revision 10
CS0910.11, Wide Range Gas Monitor Sampling, Revision 1
CS0911.06, Miscellaneous Secondary System Sampling, Revision 12
CS0917.02, Gaseous Effluent Releases, Revision 13
CS0917.03, Unmonitored Plant Releases, Revision 10
CS0917.04, Monitoring Plant Systems for Radioactivity, Revision 1
CS0918.02, 10CFR Part 50 and Part 61 Sample Analysis Methods, Revision 1
CS0920.07, Tritium Analysis by Liquid Scintillation, Revision 14

CX0917.01, Liquid Effluent Releases, Revision 20
CX0901.37, Regulatory Guide 1.21 Report, Revision 5
EV-AA-100, Fleet Groundwater Protection Program, Revision 2
EV-AA-100-1000, Groundwater Protection Program Communications/Notification Plan, Revision 4
EV-AA-100-1001, Fleet Groundwater Protection Program Implementing Guidelines, Revision 2
HD0958.53, RP Response to Spills Containing Licensed Material that has a Potential to Contaminate Ground Water, Revision 2
IX1660.815, Condenser Air Evacuators Discharge Radiation Monitor Calibration, Revision 6
IX1660.816, Waste Liquid Test Tanks Discharge Radiation Monitor Calibration, Revision 6
IX1660.814, Waste Gas Compressors Discharge Radiation Monitor Calibration, Revision 7
NARC 3-1.1, Periodic and Special Regulatory Reports, Revision 148
ON1244.01, Spill Response, Revision 24

Audits, Self-Assessments, and Surveillances:
SB Daily Quality Summary-RETS Related item January 1, 2009 to November 30, 2011
SB Daily Quality Summary Environmental Issues June 1, 2011 to May 3, 2013
SBK 10-040 Nuclear Oversight Report Chemistry Control Program and Effluent Program dated November 15, 2010

Corrective Action Document Name:

01876200	01876873	01876972	01876868	01861859	01861859
01790694	01760507	01730888	01721672	01722841	

Work Orders:

01173692	01186199	40040349	40064003	40071640	40083734
40108198	40110724	40122672	40122999	40165953	40174119
40179290	40180515	40180569			

Miscellaneous:
2011 Seabrook Station Radioactive Effluent Release Report April 26, 2012 and addendum issued October 14, 2011
2012 Seabrook Station Radioactive Effluent Release Report, April 26, 2013 and addendum issued May 24, 2013
AREVA Submittal SBC-1105: 2012 SB Land Use Census Analysis (AREVA Document No. 32-9190428-001) October 24, 2012
AREVA Submittal SBC-1112: Estimated Public Doses from Seabrook Station Effluents in 2012 (AREVA Document No. 32-9203436-000), April 22, 2013
AREVA Submittal SBC-1112: Seabrook Station Radiological Effluent Impact Assessment for 2012 (AREVA Document No. 47-9203509-000), April 22, 2013
GEW Permit 13-150 Containment Purge, 4/4/13
GEW Permit 13-165 Continuous Plant Vent Releases, 4/9/13
LEW Permit 13-198 ASDA, 4/25/13
LEW Permit 13-149 Waste Test Tank B, 4/2/13
LEW Permit 13-194 Steam Generator Blowdown Flash Tank 4/10/13
LEW Permit 13-181 Turbine Building Sumps, 4/3/13

SB Inter Laboratory Radiochemistry QC Report 2012
SB System Health Report: Waste Gas System for 2nd Quarter 2013
SB System Health Report: Radiation Monitoring System for 2nd Quarter 2013
Seabrook Station Groundwater Completion Report, August 22, 2012
Seabrook Station's Final Safety Analysis Report
Seabrook Station's ODCM, Revision 34

Section 4OA1: Performance Indicator Verification

Procedures
Inspection Manual Chapter 2515, Appendix D
Inspection Procedure 71111.22 Surveillance Testing
JD0999.910, Reporting Key Performance Indicators Per NEI 99-02, Revision 06
OX1401.02, RCS Steady Leak Rate Calculation, Revision 08
Technical Specifications 3.4.6.2

Maintenance Orders/Work Orders
40181954

Miscellaneous
NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 6

Section 4OA2: Problem Identification and Resolution

Procedures:
EX1804.015, Diesel Generator 1B 18 Month Operability and Engineered Safeguards Pump and Valve Response Time Testing Surveillance, Revision 7
EX1806.001, RPS and ESFAS Response Time Summation Procedure, Revision 7
OX1426.21, Diesel Generator 1B 18 Month Operability and Engineered Safeguard Pump And Valve Response Time Testing Surveillance, Revision 16
OX1426.32, Diesel Generator 1B 18 Month Operability Surveillance, Revision 9
WM9.1, Technical Specification Surveillance Performance and Scheduling, Revision 5

Condition Reports:

00594198	01633228	01785579	01785583	01785589	01785592
01785593	01823739	01840829	01841980	01861137	**01872691

**Condition Report written as a result of this inspection

Miscellaneous:
LER 2012-001-00, Inadequate Testing of Certain Emergency Feedwater Actuation System Relay, dated September 13, 2012
LER 2012-002-00, Inadequate Testing of Response Time for Reactor Trip Breakers, dated November 8, 2012
RCE Report 1785593, Missed Technical Specification Surveillance on FW-P-37-B, Revision 0
Seabrook Station 1st Quarter Trend Report 2013
Seabrook Station Trend Report for 2012
NRC IR 05000433/2012005

Section 4OA3: Follow-up of Events and Notices of Enforcement Discretion

Miscellaneous

Seabrook Licensee Event Report 2012-004-01

Section 4OA5: Other Activities

Condition Reports

01638564

Miscellaneous

EA-12-024, NRC Investigative Report No. 1-2011-038, dated 6/1/2012
NUC GET RWT DLA, Enhanced Radiation Worker Knowledge and Skills Lab, 8/13/12
PI-AA-204, Condition Identification and Screening Process – Nuclear Fleet, Revision 20
Rad Access Management Log for Dose to Suspended Contract Employee, dated 4/6/11

LIST OF ACRONYMS

AC	alternating current
ADAMS	Agencywide Documents Access and Management System
ALARA	as low as is reasonably achievable
AR	action request
CAP	corrective action program
CBA	control building air handling
CFR	*Code of Federal Regulations*
CR	condition report
DBD	design basis document
DRS	Division of Reactor Safety
EDG	emergency diesel generator
EFW	emergency feedwater
ESF	engineered safety feature
ESFAS	engineered safety feature actuation system
GPI	Groundwater Protection Initiative
HP	health physics
HPT	health physics technician
HRA	high radiation area
KV	kilovolt
LER	licensee event report
MR	maintenance rule
NCV	non-cited violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OI	Office of Investigation
OOS	out of service
PARS	Publicly Available Records
PCCW	primary component cooling water
RCS	reactor coolant system
RG	Regulatory Guide
SEPS	supplemental emergency power system
SG	steam generator
SSC	structure, system, and component
SW	service water
TS	technical specification
TRM	Technical Requirements Manual
UFSAR	Updated Final Safety Analysis Report
WO	work order