

Seabrook 1

1Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Monitor Condition of Control Building per 10CFR50.65(a)(1)

Inspectors identified a non-cited violation of 10 CFR 50.65(a)(1) because NextEra did not adequately monitor the condition of an in-scope structure under the Maintenance Rule (MR). Specifically, NextEra did not evaluate the results of their periodic inspections of the condition of the Control Building (CB) to determine the extent and rate of degradation to the structure. Further, in August 2010 after NextEra identified CB concrete strength degradation that called into question the effectiveness of that structures preventative maintenance program, NextEra did not classify the CB as MR (a)(1). NextEra entered the degraded structural concrete issue into its corrective action program to address the extent of condition and establish a mitigation strategy (ARs 574120 and 581434) for all in-scope structures. NextEra also initiated AR 1636419 to complete the evaluation for placing the CB into (a)(1) status.

This performance deficiency is more than minor because if left uncorrected, the condition could have resulted in the loss of function for the CB structure due to degrading concrete material properties of structures and systems designed to mitigate design basis events. The finding had very low safety significance because despite degraded concrete conditions and loss of design margin, the CB structure remained operable. The inspectors performed a Phase 1 Significance Determination Process (SDP) screening, in accordance with NRC Inspection Manual Chapter (IMC) 0609, Attachment 4, and determined the issue was of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not result in an actual loss of safety function, was not a loss of barrier function, and was not potentially risk significant for external events. This finding had a cross-cutting aspect in the area of problem identification and resolution, evaluation (P.1(c)) because NextEra did not ensure issues adverse to quality potentially impacting nuclear safety were promptly identified and evaluated. Specifically, NextEra did not thoroughly evaluate indications of concrete degradation for the CB to determine the extent and rate of degradation to the structure, and once concrete degradation due to alkali-silica-reaction (ASR) distress was identified, NextEra did not evaluate the issue within the context of the MR program to assure the condition of structures was controlled to maintain design margins.

Inspection Report# : [2011002](#) (*pdf*)

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Classify and Monitor the Ocean Transition Structures as In-Scope per 10CFR50.65(b)(2)

Inspectors identified a non-cited violation of 10 CFR 50.65(b)(2) because NextEra did not include certain Seabrook buildings as in-scope structures under the MR program. Specifically, NextEra did not classify the intake transition structure (ITS) and the discharge transition structure (DTS) as in-scope structures in the MR database, and as a result did not include them in the periodic inspections completed under the structures monitoring program per PEG04 from 1995 to 2009. NextEra initiated a MR scoping screening worksheet per procedure NAP 415 and upon consideration of the design basis information concluded both transition structures should be in-scope per 10 CFR 50.65(a)(1). The NAP 415 scoping results were accepted by the MR Expert Panel on March 15, 2011. NextEra initiated CR 1629504 to enter the issue into the Corrective Action Program (CAP) and determine the extent of condition.

The performance deficiency is more than minor because if left uncorrected, given the indications of ASR identified in these concrete structures, not monitoring the ITS and DTS structures for degradation could result in the loss of function of structures supporting systems used to mitigate design basis events, used in the emergency operating procedures, or whose loss could result in a reactor trip. The inspectors performed a Phase 1 Significance Determination Process (SDP) screening, in accordance with NRC Inspection Manual Chapter (IMC) 0609, Attachment 4, and determined the issue was of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not result in an actual loss of safety function, was not a loss of barrier function, and was not potentially risk significant for external events. This finding did not have a cross cutting aspect because the most significant contributor to the performance deficiency was not reflective of current licensee performance.

Inspection Report# : [2011002](#) (*pdf*)

Significance:  May 20, 2010

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Test ECCS (RHR-SI) Valve Interlocks

Green. The team identified a finding of very low safety significance involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," in that, NextEra did not assure that all testing required to demonstrate that structures, systems, and components will perform satisfactorily in service were identified and performed in accordance with written test procedures. Specifically, the team determined that interlocks between emergency core cooling system valves were not properly tested to demonstrate that the associated valves will perform satisfactorily in service. In response, NextEra entered the issue into the corrective action program and implemented acceptable interim actions to ensure operability.

The finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding did not have a cross-cutting aspect because the most significant contributor of the performance deficiency was not reflective of current licensee performance.

Inspection Report# : [2010006](#) (*pdf*)

Significance:  May 20, 2010

Identified By: NRC

Item Type: FIN Finding

Failure to Take Timely Corrective Action for Battery Sizing Calculations for SBO Loads

The team identified a finding of very low safety significance for NextEra's failure to take effective or timely corrective actions regarding the battery sizing calculation for safety related battery loading under station blackout (SBO) conditions. Specifically, although NextEra identified that the SBO battery sizing calculation had significant errors, no action was taken to either formally revise the calculation or ensure it was not used. The team also identified additional errors in the existing calculation. In response, NextEra entered the issue into the corrective action program, performed analysis, and confirmed there were no existing operability issues.

The finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action (P.1(d)), because NextEra did not take appropriate corrective actions to address safety issues in a timely manner. Specifically, NextEra did not take action to either formally revise the SBO battery sizing calculation or to ensure that it was not used since identifying deficiencies approximately four years ago.

Inspection Report# : [2010006](#) (*pdf*)

Significance:  Apr 15, 2010

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Inadequate instructions to install test equipment caused the A EDG to be inoperable

A self-revealing non-cited violation of Technical Specification 6.7.1, Procedures and Programs, was identified related to the failure of the A EDG during a maintenance run per EC145293 on April 15, 2010. Specifically, NextEra did not provide adequate work instructions to control temporary test equipment attached to the EDG. This led to the failure of the jacket water cooling system that required operators to shutdown the engine, resulting in unplanned unavailability for the A EDG. The leak was promptly repaired and the EDG restored to a functional status on April 17, 2010. The issue was entered into the corrective action program as condition report 221321.

The finding is more than minor because it is associated with the work control attribute of the Mitigating Systems cornerstone and it adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the inadequate work instructions intended to flow balance the A EDG coolant system during an instrumented run, resulted in unplanned extended unavailability of the A EDG. The inspectors determined the issue was of very low safety significance because the finding was not a design or qualification deficiency, did not result in an actual loss of safety function, and was not potentially risk significant for external events. The finding had a cross-cutting aspect in the area of human performance - resources [H.2.c] because the work instructions were not adequate to assure temporary test equipment was properly installed.

Inspection Report# : [2010003](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Oct 01, 2010

Identified By: NRC

Item Type: FIN Finding

Seabrook Biennial PI&R Inspection Summary

The inspectors concluded that problems were, in general, properly identified, evaluated, and resolved within the corrective action program (CAP). NextEra personnel identified problems at a low threshold and entered them into the CAP. The inspectors determined that NextEra personnel screened issues appropriately for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Root and apparent cause analyses appropriately considered extent of condition, generic issues, and previous occurrences. The inspectors determined that corrective actions addressed the identified causes and were typically implemented in a timely manner. However, the inspectors also identified a number of minor performance deficiencies that involved a lack of adherence to the procedures used to perform root cause analyses.

NextEra's audits and self-assessments reviewed by the inspectors were adequate to determine programmatic weaknesses and deficiencies. Additionally, the inspectors concluded that NextEra, in general, identified, reviewed, and applied relevant industry operating experience (OE) to the Seabrook Station. However, the inspectors also identified minor performance deficiencies that involved lack of adherence to the procedures that implemented the self assessment on OE programs. Based on interviews, observations of plant activities, and reviews of the CAP and the Employees Concerns Program (ECP), the inspectors did not identify any concerns with site personnel willingness to raise safety issues, nor did the inspectors identify conditions that could have had a negative impact on the site's safety conscious work environment (SCWE).

Inspection Report# : [2010008](#) (*pdf*)

Last modified : June 07, 2011