UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

May 13, 2011

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 NO. 1 – NRC TEMPORARY INSTRUCTION 2515/183 INSPECTION REPORT 05000443/2011009

Dear Mr. Freeman:

On April 22, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Seabrook Station, Unit No. 1 using Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event." The enclosed inspection report documents the inspection results which were discussed on April 22, 2011, with you and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of Seabrook Station to respond to extraordinary consequences similar to those that have recently occurred at the Japanese Fukushima Daiichi Nuclear Station. The results from this inspection, along with the results from this inspection performed at other operating commercial nuclear plants in the United States will be used to evaluate the United States nuclear industry's readiness to safely respond to similar events. These results will also help the NRC to determine if additional regulatory actions are warranted.

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report. You are not required to respond to this letter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management Systen (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

Lawrence T. Doerflein, Chief
Engineering Branch 2
Division of Reactor Safety

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

Enclosure: Inspection Report No. 05000443/2011009

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/RA/

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U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No:	50-443
License No:	NPF-86
Report No:	05000443/2011009
Licensee:	NextEra Energy Seabrook, LLC
Facility:	Seabrook Station, Unit No. 1
Location:	Seabrook, New Hampshire 03874
Dates:	April 18, 2011 - April 22, 2011
Inspector:	F. Arner, Senior Reactor Inspector, Division of Reactor Safety
Approved by:	Lawrence T. Doerflein, Chief Engineering Branch 2 Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000443/2011009; 04/18/2011 – 04/22/2011; Seabrook Station, Unit No. 1; Temporary Instruction 2515/183 - Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event.

This report covers an announced Temporary Instruction (TI) inspection. The inspection was conducted by a region based inspector. 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.

INSPECTION SCOPE

The intent of the TI is to provide a broad overview of the industry's preparedness for events that may exceed the current design basis for a plant. The focus of the TI was on (1) assessing the licensee's capability to mitigate consequences from large fires or explosions on site, (2) assessing the licensee's capability to mitigate station blackout (SBO) conditions, (3) assessing the licensee's capability to mitigate internal and external flooding events accounted for by the station's design, and (4) assessing the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. If necessary, a more specific followup inspection will be performed at a later date.

INSPECTION RESULTS

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in a separate report.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:		
Licensee Action		Describe what the licensee did to test or inspect equipment.
a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested. This review should be done for a reasonable		NextEra identified procedures and equipment associated with implementation of Severe Accident Management Guidelines (SAMG) and B.5.b strategies (Extreme Damage Mitigating Guidelines). NextEra reviewed the B.5.b equipment inspection and testing preventive maintenance tasks to ensure that the tasks were up to date and the equipment was available and functional. This included performing surveillance tests for the B.5.b portable diesel driven pump (PDDP) and cooling tower makeup pump to verify their functionality. Support equipment such as hoses, fittings, fasteners and trucks associated with operation of the PDDP were inspected to ensure they were functional as well. Additionally, the B.5.b hoses were pressure tested to their applicable required pressure. The portable SAMG equipment that was identified to support PDDP implementation and SAMG strategies was inspected and verified to be staged in the required locations. SAMG plant equipment such as valves were walked down to ensure they were accessible and in adequate condition to implement the strategies.
		Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).

sample of mitigating strategies/equipment.		The inspector assessed NextEra's capabilities of implementing the strategies by conducting a review of their walkdown activities. The inspector walked down and inspected key B.5.b response equipment including accessory equipment in the B.5.b building that was required for various mitigating strategies. The inspector sampled a review of completed inventory checks by NextEra and compared them with the results of field observations to ensure the proper equipment was staged and functional for the applicable strategy. The types of equipment examined included: interior fire water supply piping and hose stations; portable pump and associated suction and discharge hoses, adapters, and tools. The inspector reviewed the most recent test results for the B.5.b pump performance to ensure the pump was capable of supporting all associated strategies. This review included a review of the associated calculation to ensure the expected flowrate for various strategies would be achieved considering head losses, friction losses and the actual pump performance capability.
		Discuss general results including corrective actions by licensee.
		There were no issues identified that would have prevented the implementation of the strategies reviewed. The inspector concluded that the required materials and equipment were available and functional. NextEra identified some enhancement type issues such as the need for additional equipment labeling, the need to purchase additional B.5.b hose for margin and enhancements to the work control process to expedite repairs of B.5.b components when identified. The inspectors noted that the B.5.b storage areas may benefit from increased availability of backup lighting sources if normal lighting was not available, including consideration for the implementation of the strategies in the field. NextEra entered this issue into their corrective action program (CAP) including the items they identified for evaluation.

Licensee Action		Describe the licensee's actions to verify that procedures are in place and can be executed (e.g., walkdowns, demonstrations, tests, etc.).
b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification. This review should be done for a reasonable sample of mitigating strategies/equipment.		NextEra reviewed those procedures/guidelines utilized to mitigate the consequences of B.5.b related events and severe accidents. NextEra identified procedure tasks to target and determine which tasks would be demonstrated or walked down. This review was based on the most limiting strategies identified with respect to equipment required, the probability of required implementation, and the importance of the strategy. NextEra set up validation teams of at least two operators with at least one licensed operator per team to perform the demonstrations and walkdowns. The abnormal procedure, OS1215.07, "Loss of Spent Fuel Pool Cooling or Level," was walked down in the field to verify the procedure could accomplish its objectives. The Extreme Damage Mitigating Guideline procedures, EDMG-1, "Response to Large Area Fire or Explosion," and EDMG-2, "Major Loss of Plant Control Systems," were validated through walkdowns. Several of the most limiting and key Severe Accident Guideline procedures were validated including the actual deployment of the PDDP and hose trailer, SAG-9, "PDDP and Hose Trailer Deployment." Procedures which were not validated through demonstration were validated through walkdowns to ensure they could be implemented and accomplish the intent of their mitigation strategies.
		Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.
		The inspector examined the station's established guidelines and implementing procedures for the B.5.b mitigation strategies and assessed how NextEra coordinated and documented the interface/transition between existing off-normal and emergency operating procedures with the mitigation strategies. The inspector selected several mitigation strategies and conducted plant walkdowns with operators to assess: the adequacy and completeness of the procedures/guidelines; familiarity of operators with the procedure objectives and specific guidance; staging and compatibility of equipment; and the practicality of the operator actions prescribed by the procedures, consistent with the postulated scenarios. The inspector also performed a table top review of a sample of B.5.b strategies not walked down to validate the procedures could be reasonably implemented. This was performed for selected portions of

		SAG 3, "Inject into Reactor Coolant System." The inspector identified a potential enhancement to EDMG-2 in that the procedure did not provide a step to remind the operators that pre-staged fire protection gear was available and inventoried in the fire protection annex building for fire fighting use. NextEra entered this issue into their CAP for resolution.
		Discuss general results including corrective actions by licensee.
		The various SAMG strategy implementing procedures were determined to be adequate and would accomplish the objective of the strategy. The inspector's review and walkdown of selected SAMG procedures in the field confirmed them to be adequate and executable. There were various minor procedural and equipment enhancements identified by NextEra in the course of their table top reviews, demonstration of procedures in the field and procedure walkdowns. The inspector verified the issues were appropriately entered into their CAP for resolution.
Licensee Action		Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff.
c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to		NextEra verified that the training and qualifications of operators and all emergency response organization positions were current for activities related to B.5.b and SAMGs. This review identified the number of personnel in each of the required positions and identified the associated required qualifications.
		Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.

Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).		The inspector examined the training material provided to the site personnel to be tasked with implementing the B.5.b mitigation strategies. The inspector assessed the licensee's training and qualification activities by conducting a review of training and qualification materials and records related to B.5.b, SAMG and Supplemental SAMG event response. Additionally, the inspector discussed the training with selected individuals to assess the effectiveness of the training program.
		Discuss general results including corrective actions by licensee.
		Based upon the inspector's review of formal training lesson plans, interviews, and observations of plant staff during the walkdown of mitigating strategies in the field, the inspector concluded that overall B.5.b and SAMG training was appropriate. The licensee identified one notable issue regarding training. NextEra identified that primary responder initial training is provided for B.5.b and associated EDMGs/SAMGs; however, there was no continuing training established on EDMGs. The inspector verified the issue was entered into the CAP for evaluation.
Licensee Action		Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.
d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.		NextEra verified their agreement with the Seabrook Fire Department was still current and the required offsite support equipment was available to support their mitigation of the consequences of events.
		For a sample of mitigating strategies involving contracts or agreements with offsite entities, describe inspector actions to confirm agreements and contracts are in place and current (e.g., confirm that offsite fire assistance agreement is in place and current).

This review should be done for a reasonable sample of mitigating strategies/equipment.	The inspector reviewed the agreement with the Seabrook Fire Department and verified that it was current and the agreement function was reasonable to assist in mitigation strategies.
	Discuss general results including corrective actions by licensee.
	No deficiencies were identified. The inspector concluded that the agreement was in place and capable of meeting the condition needed to mitigate the consequences of an event.
Licensee Action	Document the corrective action report number and briefly summarize problems noted by the licensee that have significant potential to prevent the success of any existing mitigating strategy.
e. Review any open corrective action documents to assess problems with mitigating strategy implementation identified by the licensee. Assess the impact of the problem on the mitigating capability and the remaining capability that is not impacted.	Numerous corrective action documents were reviewed during this inspection, and are listed in the Attachment to this report. The condition reports were primarily enhancements to procedures and equipment. The inspector concluded that none of the issues identified would have a significant adverse impact on the B.5.b strategy mitigating capabilities.

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design, is functional and valid. Refer to TI 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22" as a guideline. It is not intended that TI 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:	
Licensee Action	Describe the licensee's actions to verify the adequacy of equipment needed to mitigate an SBO event.
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	NextEra reviewed procedures used for mitigating SBO events to identify equipment relied on for mitigation of the event. NextEra then conducted walkdowns of the procedure to ensure equipment would be available and the actions were reasonable.
	Describe inspector actions to verify equipment is available and useable.
	The inspector assessed the NextEra's capability to mitigate SBO conditions by conducting a review of the NextEra's walkdown activities. In addition, the inspector selected a sample of equipment utilized/required for mitigation of a SBO and conducted independent walkdowns of that equipment to verify that the equipment was properly aligned and staged. The inspector independently reviewed the SBO coping analysis and performed walkdowns of selected equipment used in the procedures to verify that procedure actions were reasonable. The inspector also reviewed corrective actions relative to station battery calculations to ensure they were current and supported the operation of critical equipment relied on for the SBO assumed duration.
	Discuss general results including corrective actions by licensee.

		NextEra reviews verified that SBO equipment was ready to respond to a postulated SBO condition. Based on reviews of NextEra's actions and independent reviews and equipment walkdowns, the inspector concluded all required materials were properly staged, tested, and maintained.
Licensee Action		Describe the licensee's actions to verify the capability to mitigate an SBO event.
b. Demonstrate through walkdowns that procedures for response to an SBO are executable.		NextEra performed a demonstration of the SBO procedure using the plant simulator to ensure the procedures were adequate. Additionally, actions called out in the procedure outside of the control room were walked down to verify they were reasonable and executable.
		Describe inspector actions to assess whether procedures were in place and could be used as intended.
		The inspector assessed NextEra's SBO capabilities by conducting a review of their walkdown activities. In addition, the inspector selected several sections of the procedures walked down by NextEra and conducted walkdowns to independently verify their conclusions.
		Discuss general results including corrective actions by licensee.
		NextEra identified various minor enhancements to the procedures through their review of the simulator and equipment walkdowns. No deficiencies were identified which would have affected the ability to meet the objectives of the procedure. The inspector concluded that the SBO procedure was adequate and executable to support the required strategy.

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding" as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.		
Licensee Action		Describe the licensee's actions to verify the capability to mitigate existing design basis flooding events.
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.		NextEra actions included a review of the site flooding design bases for both internal and external flood events. NextEra identified required protective flood design features such as the existing seawall, site flood water runoff area assumptions and building exterior design for the external flood design bases. NextEra reviewed plant areas where hydrostatic barriers were required including penetration seal design features. Plant procedures were identified and reviewed, including those for areas such as turbine building flooding, to ensure the actions were consistent with maximum flood water assumptions to verify protection of adjacent rooms such as safety related switchgear. Additionally, credited flood mitigating equipment was also identified such as sump and tank level alarms. For active and selected passive equipment such as floor drain flood mitigating equipment, NextEra reviewed that the function was verified through the performance of periodic preventive maintenance procedures/testing. This included verification that the testing was being performed within its scheduled testing frequency. Passive equipment such as the seawall and revetments were validated to be functional through walkdowns. Credited room drains were verified through a review of preventive maintenance tasks. NextEra assessed the condition of flooding design features through visual examinations of barriers, doors and seals.
		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.

		The inspector assessed NextEra's capabilities to mitigate external and internal flooding by conducting a walkdown of selected areas. This review involved the inspector accompanying licensee personnel during in-field walkdowns and independent walkdowns by the inspector of selected external and internal flood mitigation equipment. The inspector reviewed plant areas such as the residual heat removal (RHR) vaults, safety related switchgear rooms, cable spreading room, emergency feedwater (EFW) room and the EDG building to verify plant design flood features were in place. The inspector also reviewed design basis assumptions including credited operator response times to ensure they were reasonable. The inspector also ensured that selected equipment area/room elevations which may be subjected to outside water leakage from external flooding exceeded the highest assumed external design basis flooding elevations. The inspector's conclusions aligned with the results obtained by NextEra.
		Discuss general results including corrective actions by licensee.
		The inspector concluded that all required materials are adequate and properly staged, tested, and maintained to respond to an internal or external flood within the plant's design basis. While no operability or significant concerns were identified, NextEra identified issues with: the frequency of preventive maintenance activities on RHR vault sump level instruments; recurring EFW pumphouse floor drains blockage such that leakage through an adjacent room door had to be credited; and a minor UFSAR documentation issue. NextEra appropriately entered these issues into their CAP for further assessment and resolution, as listed in the Supplemental Information Attachment of this report. The inspector reviewed the associated condition reports, and determined NextEra's initial responses including their assessment of operability and prioritization of the issues were appropriate. The inspector concluded that NextEra had adequately verified the capability to mitigate internal and external flooding events required by station design.

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary) such as storage tanks, plant water intake structures, and fire and flood response equipment; and developed mitigating strategies to cope with the loss of that important function. Use IP 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections.		
Licensee Action		Describe the licensee's actions to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies.
a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.		NextEra used industry guidance to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies. These guidelines were established to govern the conduct of walkdowns and inspections of equipment, both permanent and temporary. NextEra conducted walkdowns and documented the results. NextEra reviewed their seismic and fire protection design bases to identify credited fire protection equipment and to verify fire protection equipment functionality.
		Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.

		The inspector conducted multiple walkdowns, both independently and in conjunction with NextEra personnel, of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during a seismic event. This equipment included, but was not limited to: • B.5.b contingency response equipment; • portions of the installed fire protection and suppression equipment in various plant areas; • installed diesel and electric fire pumps and their controls; and • the seismic electric booster pump designed to give Seabrook the capability to backup the normal non-seismic fire fighting system for seismic Category I buildings. The inspector reviewed a sample of NextEra's flood and fire mitigation procedures to assess their adequacy. The inspector also reviewed the associated calculation for the seismic electric booster pump to ensure that the pump could achieve its required flowrate to hose stations for fire-fighting after a seismic event, given friction losses, service water head/pressure and actual tested booster pump performance data. The inspector concluded that NextEra meets the current licensing and design bases for fire protection and flooding.
		Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.

		The inspector concluded that NextEra's review in this area was comprehensive. In reviewing beyond design basis flooding and seismic interactions, NextEra identified several potential enhancements that could improve the survivability of equipment or strategies or provide other viable options. The enhancements identified mainly focused on improvements to the seismic quality of the fire suppression systems. This included identification of the need to move a fire brigade ready area to a seismic building. NextEra also identified that staged B.5.b equipment was not stowed in seismically qualified buildings and locations, as a seismic event and B.5.b event were not assumed to occur coincidentally. The inspector noted that the Seabrook fire protection system includes an installed seismically designed backup system which uses a booster pump provided with safeguards AC power and a safety related seismically qualified (cooling tower) service water suction source. The inspector determined that the booster pump would be available to provide a fire fighting strategy to protect equipment in various seismic building areas even with the loss of the normal fire pumps. The inspector identified some minor observations and potential enhancements regarding the existing implementing procedure for the booster pump. One observation was to clearly identify in the procedure a flowpath when starting the pump, since there is no minimum flowpath to protect the pump. NextEra entered this and other observations into their CAP to evaluate procedural enhancements. Additionally, the inspector noted that there were various area sump level switches relied upon to alert operators to flooding conditions. However, non-seismic switches such as those for the RHR vault were not clearly addressed as to the impact of this in NextEra's review. NextEra entered this issue into the corrective action program to consider enhancing procedures to expedite walkdowns of areas with non-seismic level switches following a design basis earthquake. The inspector noted that ES 1802.001, Rev. 1, "Earthquake Response," does not assure timely identification of an issue because it targets a comprehensive review of building areas within a 24 hour period after the event, not promptly thereafter. The inspector noted that NextEra documented a number of beyond design basis event procedural enhancements and entered these items into their CAP for evaluation.

Meetings

4OA6 Exit Meeting

The inspector presented the inspection results to Mr. P. Freeman, Site Vice President, and other members of the Seabrook station staff at the conclusion of the inspection on April 22, 2011. The inspector confirmed that any proprietary information was returned to the licensee and verified the inspection report does not contain proprietary information.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

P. Freeman, Seabrook Station Site Vice President
R. Belanger, Nuclear Oversight
K. Browne, Operations Manager
M. Collins, Design Engineering Manager
D. Kelly, EOP Coordinator
G. Kilby, Licensing Engineer
R. Noble, Engineering Director
M. O'Keefe, Licensing Manager
V. Pascucci, Nuclear Oversight Manager

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

CAP Reports with an asterisk (*) indicate the document was written as a result of the inspection effort.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events

Procedures:

C-S-1-86208, Extreme Damage Mitigating Strategy Flow Capability, Rev. 3
ECA-0.0, Loss of All AC Power, Rev. 40
EDMG-2, Major Loss of Plant Control Systems, Rev. 10
OS0043.15, Fire Protection Booster Pump FP-P-374 Operation, Rev. 1
OS0243.02, Fire Main Break, Rev. 13
OS0443.108, Fire Protection Booster Pump 18 Month Operability Test, Rev. 1
OS1215.07, Loss of Spent Fuel Pool Cooling or Level, Rev. 10
OS1430.05, ASDV 18-Month Local Valve Stroke, Rev. 4
SAG-1, Attachment C, Locally Starting the Turbine Driven EFW Pump, Rev. 7
SAG-1, Attachment E, Manually Depressurize SG to Reduce RCS Inventory Loss, Rev. 7
SAG-1, Attachment F, Depressurize and Feed SGs Using Portable Pump, Rev. 7
SAG-3, Attachment C, Aligning Water to Charging Pump Suction, Rev. 7
SAG-8, Attachment D, Containment Flooding, Rev. 3
SAG-9, PDDP and Hose Trailer Deployment, Rev. 3

Corrective Action Program Reports:

AR 01630431, Backup B.5.b Tow Vehicle Dead Battery
AR 01631272, SAG-9 Identified Enhancements for PDDP Deployment
AR 01631626, Develop B.5.b Equipment Repair Priority in Work Control
AR 01631689, Primary Responder EDMG Continuing Training Issue
AR 01631960, N.O. DQS IER1 11-1,B.5.b Equipment Storage Building
AR 01632123, Potential Design Control Manual Process Improvement
*AR 01642971, B.5.b Flashlight Storage
*AR 01642975, B.5.b Equipment Shelves Not Anchored to Wall
AR 01643392, ERG Rev. 3 DW 07-003 Recommends B.5.b pump in EOPs
*AR 01643897, EDMG-2 Should Include Method to Obtain Fire Prot. Gear

Other:

Letter of Agreement between Seabrook Station and Seabrook Fire Department, 7/22/08
WO 01200047, Work Order 3 Year B.5.b Hose Inspection, 6/14/10
L8300C-B5B, B.5.b Security Personnel Training Overview, January 2008
WO 40040873, 18 Month B.5.b Equipment Inventory Surveillance, 3/17/11
WO 40041885, Work Order, FP-P-449 18-Month Test, 3/20/11

03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions

Procedures:

ECA-0.0, Loss of All AC Power, Rev. 40

Calculations/Evaluations:

SBO Evaluation, SBO Evaluation of NUMARC Initiative 5 for Seabrook, Rev. 4

Corrective Action Program Reports:

AR 00391104, NRC CDBI NCV, Untimely Revision of 125 Vdc Calculation
AR 01633028, Loss of All AC Power Enhancements Identified During Walkdowns of ECA 0.0
AR 01633240, Consider Storing Hard Hat Mounting Lamps SBO Event

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design

Completed Tests:

CC-L-2172-1-CAL-1, "A" Component Cooling Head Tank Level Alarm Calibration, 9/13/10
DF-L-5901-FUNC-1, 1680 Day Electrical Tunnel Sump Alarm Functional, 1/24/07
DF-L-5955-CAL-1, 7-Year Electrical Tunnel Sump Level Alarm Calibration, 7/23/08
DF-INSP-DRAINS-3, 5-Year PAB Building Drain Preventive Maintenance, 8/25/06
WLD-L-8340-CAL-1, 5-Year PAB Building Sump Level Alarm Calibration, 2/14/08
WLD-L-8341-CAL-1, 5-Year PAB Building Sump Level Alarm Calibration, 7/6/09
WLD-P71-CAL-1, 5-Year A RHR Pump Vault Sump Level Calibration, 4/11/03
WLD-P71-CAL-2, 5-Year B RHR Pump Vault Sump Level Calibration, 4/7/03

Corrective Action Program Reports:

AR 01634054, SE Foam Qualification as Hydrostatic Seal Material
AR 01634891, Conduit Seal Inleakage Electrical Tunnel
AR 01634911, UFSAR Flood Level Inconsistent with Calculated (SBC1042 Flood Level)
AR 01634915, Effect of Security Channeling Barriers on Site Runoff and Flooding Levels
AR 01635509, EFW Pumphouse Floor Drains Blockage
AR 01635997, Emergency Feedwater Pumphouse Floor Drain Piping Partially Blocked
AR 01636920, Preventive Maintenance on Equipment Credited for Flood Response Not Performed Within PM Frequency
AR 01638637, PM Needed to Verify EFWPH Door Gap

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events

Procedures:

ES1802.001, Earthquake Response, Rev. 1
OS0043.15, Fire Protection Booster Pump FP-P-374 Operation, Rev. 1
OS0243.02, Fire Main Break, Rev. 13

Drawings:

PID 1-FP-B20268, Fire Protection Standpipe Detail, Rev. 15

Calculations/Evaluations:

4.3.8.24F, Calculation for Fire Protection Operations, Rev. 2

Corrective Action Program Reports:

AR 01631502, Offsite Pumper Fittings Enhancement
AR 01635811, Secure Hypochlorite Tanks FP Pump House

AR 01636413, Consider Qualifying FP Tanks and Pumps to SSE
AR 01637016, Enhance Procedure OS0043.15 FP Booster Pump
AR 01637921, No Fire Brigade Ready Area in Seismic Building
AR 01641425, Purchase Hose Adapters for Local Fire Department Connections
*AR 01643585, Procedure Enhancement to Document Actions on Loss of Fire Detection
*AR 01643601, Procedure Enhancement Post SSE for Timely Walkdown of RHR Vaults and Electrical Tunnels
*AR 01643614, Procedure Enhancement OS0043.15 Fire Protection Booster Operation to Minimize/Restrict Deadhead Operation

Other:

APCSB 9.5-1, Branch Technical Position, Guidelines for Fire Protection, 7/1/76
IER L1 11-1, Operations Manager Input Seabrook Station, Rev. 0
MSE 03-170, Modification for Replacement of 1-FP-P-374 Impeller, Rev. 0

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CAP	Corrective Action Program
CDBI	Component Design Bases Inspection
CFR	Code of Federal Regulations
EDG	Emergency Diesel Generator
EDMG	Extreme Damage Management Guideline
EFW	Emergency Feedwater
FP	Fire Protection
NRC	United States Nuclear Regulatory Commission
PDDP	Portable Diesel Driven Pump
RHR	Residual Heat Removal
SAMG	Severe Accident Management Guidelines
SBO	Station Blackout
TI	Temporary Instruction