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

March 4, 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: ANNUAL ASSESSMENT LETTER FOR SEABROOK STATION, UNIT 1 (05000443/2010001)

Dear Mr. Freeman:

On February 10, 2011, the Nuclear Regulatory Commission (NRC) completed its end-of-cycle performance review of Seabrook Station, Unit 1 (Seabrook). The NRC reviewed the most recent quarterly performance indicators (PIs), in addition to inspection results and enforcement actions from January 1, 2010, through December 31, 2010. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This performance review and enclosed inspection plan do not include security information. A separate letter will include the NRC's assessment of your performance in the Security Cornerstone and its security-related inspection plan.

The NRC determined that overall, Seabrook operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Seabrook during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green).

Plant performance for the first and second quarter of 2010 was within the Regulatory Response column of the ROP Action Matrix, because of one inspection finding with low to moderate (i.e., white) safety significance. The White finding, (ML093160351)[1], involved the failure to establish adequate design control measures to modify a cooling water flange on the B emergency diesel generator (EDG), which led to the failure of the diesel during a test on February 25, 2009. To review your actions to address the White finding in June 2010, the NRC completed a supplemental inspection using Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area." As discussed in our mid-cycle performance assessment letter dated September 1, 2010, (ML102440395), the finding was closed based on the satisfactory results for that inspection (ML102250493), and, therefore, was no longer considered for plant assessment purposes as of July 1, 2010. Seabrook returned to the

1 Designation in parenthesis refers to an ADAMS accession number. Documents referenced in this letter are publicly available using the accession number in ADAMS.

Licensee Response column of the NRC's Action Matrix on July 1, 2010, and the NRC plans to conduct ROP baseline inspections at your facility in 2011.

The enclosed inspection plan lists the inspections scheduled through June 30, 2012. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the mid-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

As discussed in our mid-cycle assessment letter (ML102440395), an Operational Safety Review Team (OSART), performed by senior staff members from the International Atomic Energy Agency (IAEA), will be conducted at Seabrook in June 2011. The scope of the OSART evaluation may encompass portions of the ROP baseline inspection program. NRC Inspection Manual Chapter 2515, Section 08.05, "Baseline Inspection Credit for Operational Safety Review Team Effort," allows a reduction in baseline inspection in those areas that are determined to overlap with the OSART review. If the results of the OSART, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible.

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

Please contact Arthur Burritt at 610-337-5069 with any questions you have regarding this letter.

Sincerely,

Darrell J. Roberts, Director
Division of Reactor Projects

Docket Nos. 50-443
License Nos. NPF-86

cc w/encl: Distribution via ListServ
Seabrook Station Inspection/Activity Plan

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/RA/
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Seabrook Station Inspection/Activity Plan

Distribution: See attached page

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SUNSI REVIEW COMPLETE: LC (Reviewer's initials)

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NAME	LCline/ LC		ABurritt/ ALB		DRoberts/DJR	
DATE	02/28 /11		03/ 01 /11		03/ 02 /11	

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Seabrook 1
Inspection / Activity Plan
01/01/2011 - 06/30/2012

Unit Number	Planned Dates Start	End	Inspection Activity	Title	No. of Staff on Site
			71124 - OCC RAD SAFETY		**1**
1	01/24/2011	01/28/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	01/24/2011	01/28/2011	IP 71124.02	Occupational ALARA Planning and Controls	
			71002 - LR INSPECTION		**9**
1	03/07/2011	03/11/2011	IP 71002	License Renewal Inspection	
1	03/21/2011	03/25/2011	IP 71002	License Renewal Inspection	
			7111108P - INSERVICE INSPECTION		**1**
1	04/04/2011	04/15/2011	IP 7111108P	Inservice Inspection Activities - PWR	
			71124 - OCC RAD SAFETY		**1**
1	04/25/2011	04/29/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/25/2011	04/29/2011	IP 71124.04	Occupational Dose Assessment	
			7112402 - ALARA		**1**
1	05/09/2011	05/13/2011	IP 71124.02	Occupational ALARA Planning and Controls	
			TRI FIRE - TRIENNIAL FIRE PROTECTION INSPECTION		**4**
1	07/25/2011	07/29/2011	IP 7111105T	Fire Protection [Triennial]	
1	08/08/2011	08/12/2011	IP 7111105T	Fire Protection [Triennial]	
			71124 - REMP		**1**
1	09/12/2011	09/16/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	09/12/2011	09/16/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1	09/12/2011	09/16/2011	IP 71124.07	Radiological Environmental Monitoring Program	
			711111B - SEABROOK REQUAL INSP W/ P/F RESULTS		**2**
1	12/05/2011	12/09/2011	IP 7111111B	Licensed Operator Requalification Program	
			EP PROGR - EP PROGRAM INSPECTION		**1**
1	11/28/2011	12/02/2011	IP 7111402	Alert and Notification System Testing	
1	11/28/2011	12/02/2011	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	11/28/2011	12/02/2011	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	11/28/2011	12/02/2011	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	11/28/2011	12/02/2011	IP 71151-EP01	Drill/Exercise Performance	
1	11/28/2011	12/02/2011	IP 71151-EP02	ERO Drill Participation	
1	11/28/2011	12/02/2011	IP 71151-EP03	Alert & Notification System	
			71124 - EFFLUENTS & ISFSI		**1**
1	12/04/2011	12/09/2011	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
1	12/04/2011	12/09/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	12/04/2011	12/09/2011	IP 71124.02	Occupational ALARA Planning and Controls	
1	12/04/2011	12/09/2011	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Seabrook 1
Inspection / Activity Plan
01/01/2011 - 06/30/2012

Unit Number	Planned Dates Start	End	Inspection Activity	Title	No. of Staff on Site
			71124 - OCC RAD SAFETY		**1**
1	01/30/2012	02/03/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	01/30/2012	02/03/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1	01/30/2012	02/03/2012	IP 71124.04	Occupational Dose Assessment	
			MODS - PERMANENT PLANT MODIFICATIONS		**3**
1	03/12/2012	03/16/2012	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
1	03/26/2012	03/30/2012	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
			EP EX - EP EXERCISE EVALUATION		**5**
1	04/16/2012	04/20/2012	IP 7111401	Exercise Evaluation	
1	04/16/2012	04/20/2012	IP 7111404	Emergency Action Level and Emergency Plan Changes	
			71124 - RMS		**1**
1	05/14/2012	05/18/2012	IP 71124.05	Radiation Monitoring Instrumentation	
			71152B - PI&R		**4**
1	06/11/2012	06/15/2012	IP 71152B	Identification and Resolution of Problems	
1	06/25/2012	06/29/2012	IP 71152B	Identification and Resolution of Problems	

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