



April 15, 2011

Docket No. 50-443

SBK-L-11076

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

Seabrook Station  
2010 Annual Environmental Operating Report

NextEra Energy Seabrook, LLC has enclosed the 2010 Annual Environmental Operating Report for Seabrook Station. The enclosed report is a summary of the implementation of the Environmental Protection Plan (EPP) for the period of January 1, 2010 to December 31, 2010. This report is submitted pursuant to the requirements of Section 5.4 of the Seabrook Station Environmental Protection Plan.

Should you have any questions concerning this response, please contact Mr. Allen Legendre, Principal Engineer, at (603) 773-7773.

Sincerely,  
NextEra Energy Seabrook, LLC

  
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Michael O'Keefe  
Licensing Manager

Enclosure

cc: NRC Region I Administrator  
E. Miller, NRC Project Manager, Project Directorate I-2  
W. J. Raymond, NRC Senior Resident Inspector

JE25  
NRR

**ENCLOSURE TO SBK-L-11076**

**Seabrook Station**  
**Annual Environmental Operating Report**  
**January 1, 2010 to December 31, 2010**

**Environmental Monitoring Program**

The following provides a summary of the reports related to Seabrook Station Aquatic Monitoring in accordance with Subsection 4.2 of the Environmental Protection Plan.

- NextEra Energy Seabrook Letter SBK-L-10019, “2009 Hydrological Monitoring Report” dated February 4, 2010. This letter was submitted to the EPA in accordance with the NPDES Permit and demonstrated compliance with the NPDES Permit limits on the thermal component of the cooling water system discharge from Seabrook Station in 2009. Seabrook Station’s NPDES Permit sets thermal discharge limits during station operation. Specifically, the thermal component of the discharge cannot increase the surface temperature in the near-field jet-mixing region by more than 5° F. The jet-mixing region is the ocean area within 300 feet of the submerged diffuser in the direction of discharge.
- NextEra Energy Seabrook Letter SBK-L-10022, “2009 Chlorine Minimization Report” dated February 4, 2010. This letter was submitted to the EPA in accordance with the NPDES Permit and demonstrated compliance with the NPDES Permit limits on the chlorine levels discharged by Seabrook Station’s cooling water system. During 2009, chlorine levels discharged from Seabrook Station, measured as the Total Residual Oxidant (chlorine), were below the NPDES Permit limits of 0.2 ppm daily maximum and 0.15 ppm monthly average.
- NextEra Energy Seabrook Letter SBK-L-10131, “2010 Environmental Monitoring Mid-Year Report” dated July 23, 2010. This letter was submitted to the EPA in accordance with the NPDES Permit and provided a mid year status of the continuing 2010 Biological, Hydrological and Chlorination Monitoring Programs. The report concluded that Seabrook Station’s Environmental Monitoring Program continues to demonstrate that Seabrook Station has not had a significant impact on the balanced indigenous populations in the coastal waters of New Hampshire.
- NextEra Energy Seabrook Letter SBK-L-10152, “2009 Environmental Monitoring Report” dated August 30, 2010. This letter was submitted to the EPA in accordance with the NPDES Permit and describes the environmental monitoring program for Seabrook Station. The 2009 Environmental Monitoring Report provides a comparison of 2009 environmental monitoring data to previous years and continues to demonstrate that Seabrook Station has not had an adverse effect upon the balanced indigenous populations in the Hampton-Seabrook area.

**Changes in Station Design or Operation, Tests and Experiments Involving a Potentially Unreviewed Environmental Question**

During 2010, there were no changes in Station design or operation, tests or experiments that involved a potentially unreviewed environmental question. Environmental screening of these changes was performed as required by the Seabrook Station Environmental Compliance Manual.

**Environmental Protection Plan Noncompliances**

During 2010 there were no instances of noncompliance with the Environmental Protection Plan.

**Nonroutine Reports**

There were no nonroutine reports submitted during 2010 per Section 5.4.2 of the Environmental Protection Plan.

A minor sanitary system overflow having negligible environmental consequences was reported to the EPA and NRC (non-emergency notification per 10 CFR 50.72) on September 13, 2010.