



April 9, 2012

Docket No. 50-443

SBK-L-12078

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

Seabrook Station
2011 Annual Environmental Operating Report

NextEra Energy Seabrook, LLC has enclosed the 2011 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, 2011 to December 31, 2011. 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



Michael O'Keefe
Licensing Manager

Enclosure

cc: W. Dean, NRC Region I Administrator
J. Lamb, NRC Project Manager
W. J. Raymond, NRC Senior Resident Inspector

JEZS
NRK

ENCLOSURE TO SBK-L-12078

**Seabrook Station
Annual Environmental Operating Report
January 1, 2011 to December 31, 2011**

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-11047, “2010 Hydrological Monitoring Report” dated February 28, 2011. 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 2010. 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-11048, “2010 Chlorine Minimization Report” dated February 28, 2011. 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 2010, 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-11152, “2011 Environmental Monitoring Mid-Year Report” dated July 22, 2011. This letter was submitted to the EPA in accordance with the NPDES Permit and provided a mid year status of the continuing 2011 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-11171, “2010 Environmental Monitoring Report” dated August 25, 2011. This letter was submitted to the EPA in accordance with the NPDES Permit and describes the environmental monitoring program for Seabrook Station. The 2010 Environmental Monitoring Report provides a comparison of 2010 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 2011, 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 2011 there were no instances of noncompliance with the Environmental Protection Plan.

Nonroutine Reports

There were no nonroutine reports submitted during 2011 per Section 5.4.2 of the Environmental Protection Plan.