



FPL Energy
Seabrook Station

FPL Energy Seabrook Station
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(603) 773-7000
APR 29 2005

Docket No. 50-443

SBK-L-05104

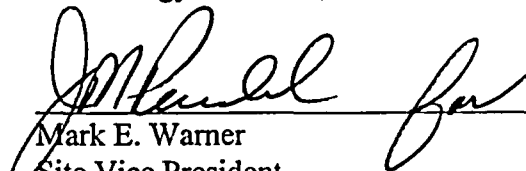
U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Seabrook Station
2004 Annual Environmental Operating Report

FPL Energy Seabrook, LLC encloses the 2004 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, 2004 to December 31, 2004. This report is submitted pursuant to the requirements of 10 CFR 50.36b and 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.

Very truly yours,
FPL Energy Seabrook, LLC



Mark E. Warner
Site Vice President

Enclosure

cc: S. J. Collins, NRC Region I Administrator
V. Nerses, NRC Project Manager, Project Directorate I-2
G. T. Dentel, NRC Senior Resident Inspector

JEAS

ENCLOSURE TO SBK-L-05104

**Seabrook Station
Annual Environmental Operating Report
January 1, 2004 to December 31, 2004**

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.

- FPL Energy Seabrook Letter NYE-04002, "2003 Hydrological Monitoring Report," dated February 23, 2004. 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 2003. 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.
- FPL Energy Seabrook Letter NYE-04003, "2003 Chlorine Minimization Report," dated February 19, 2004. This letter was submitted to the EPA in accordance with the NPDES Permit and described compliance with the NPDES Permit limits on the chlorine levels discharged by Seabrook Station's cooling water system. During 2003, 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.
- FPL Energy Seabrook Letter NYE-04001, "2004 Chlorine Transit Study Proposal," dated January 26, 2004. This letter was submitted to the EPA in accordance with the NPDES Permit. The letter described the two Chlorine Transit Studies to be performed in 2004 to confirm that the permitted Total Residual Oxidant (chlorine) concentration in the Circulating Water System discharge satisfies New Hampshire water quality standards for chlorine in the receiving waters.
- FPL Energy Seabrook Letter NYE-04008, "April 2004 Chlorine Transit Study Results," dated May 17, 2004. This letter was submitted to the EPA in accordance with the NPDES Permit. The results of the April 2004 Chlorine Transit Study show that an average chlorine consumption of at least 50 percent was achieved in the Circulating Water System discharge tunnel. This consumption rate combined with the 10:1 dilution provided by Seabrook Station's discharge diffusers in the mixing zone of the receiving water ensures Seabrook Station's compliance with the New Hampshire's water-quality standard for chlorine.
- FPL Energy Seabrook Letter SBK-L-04014, "2004 Environmental Monitoring Mid-Year Report," dated July 27, 2004. This letter was submitted to the EPA in accordance with the NPDES Permit and summarized the Biological, Hydrological and Chlorination Monitoring Program results. The report concluded that the Environmental Monitoring Program

continued to demonstrate that Seabrook Station has not had a deleterious impact on the balanced indigenous populations in the coastal waters of New Hampshire.

- FPL Energy Seabrook Letter SBK-L-04024, "2003 Environmental Monitoring Report," dated August 31, 2004. This letter was submitted to the EPA in accordance with the NPDES Permit and describes the environmental monitoring program for Seabrook Station. The 2003 Environmental Monitoring Report concluded that Seabrook Station has not adversely affected the balanced indigenous populations in the Hampton-Seabrook area.
- FPL Energy Seabrook Letter SBK-L-04134, "October 2004 Chlorine Transit Study Results," dated December 7, 2004. This letter was submitted to the EPA in accordance with the NPDES Permit. The results of the October 2004 Chlorine Transit Study show that an average chlorine consumption of approximately 50 percent was achieved in the Circulating Water System discharge tunnel. This consumption rate combined with the 10:1 dilution provided by Seabrook Station's discharge diffusers in the mixing zone of the receiving water ensures Seabrook Station's compliance with the New Hampshire's water-quality standard for chlorine.
- FPL Energy Seabrook Letter SBK-L-04112, "DMR QA Study Oil and Grease Analysis – Evaluation," dated December 6, 2004. This letter provides an evaluation of the initial failure to correctly analyze an unknown oil & grease sample in conjunction with DMR QA Study 24. The letter documents that additional unknown samples were analyzed and acceptable results were achieved.

EPP Non-Compliance and Corrective Actions

- There were no NPDES Permit exceedences reported to the EPA in the monthly Seabrook Station Discharge Monitoring Reports (DMRs) in 2004.

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

- During 2004, there were no changes in Station design or operation, tests and equipment that involved a potentially unreviewed environmental question. Environmental screening of these changes was performed as required by the Seabrook Station Environmental Compliance Manual.

Non-Routine Reports

- During 2004 there were no non-routine reports made in accordance with the NPDES Permit or the Environmental Protection Plan.