



**FPL Energy**  
**Seabrook Station**

FPL Energy Seabrook Station  
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**APR 13 2004**

Docket No. 50-443

NYN-04030

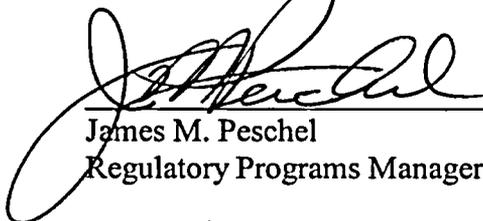
U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

**Seabrook Station**  
**2003 Annual Environmental Operating Report**

FPL Energy Seabrook, LLC encloses the 2003 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, 2003 to December 31, 2003. 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



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James M. Peschel  
Regulatory Programs Manager

Enclosure

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

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ENCLOSURE TO NYN-04030

**Seabrook Station  
Annual Environmental Operating Report  
January 1, 2003 to December 31, 2003**

**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.

1. FPL Energy Seabrook Station Letter NYE-03003, "Storm Water Multi-sector General Permit Analytical Monitoring Results," dated January 28, 2003. This letter was submitted to the EPA in accordance with the NPDES Storm Water Multi-sector General Permit (MSGP) for Industrial Activities. The benchmark monitoring results for total iron were provided for the third and fourth quarter of MSGP Year 2 (October 1, 2001 to September 30, 2002) since Seabrook Station's initial coverage began at the very end of the second quarter of Year 2. The June and August 2002 total iron levels of 1.5 mg/l and 10.0 mg/l were higher than the benchmark level of 1.0 mg/l. These atypical results were attributed to the fact that the storm water samples were collected following periods of extended dry weather. This condition allowed normal standing storm water in the storm drain system to be in contact with metal surfaces for a prolonged time thus concentrating the iron oxide in the storm drain system water which normally is flushed away by periodic rainfall events. A storm water sample was collected on October 16, 2002 after rainfall had returned to more normal frequencies. The total iron level of this sample was 0.21 mg/l, which is below the benchmark level.
2. FPL Energy Seabrook Station Letter NYE-03005, "2002 Hydrological Monitoring Report," dated February 20, 2003. 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 2002. 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.
3. FPL Energy Seabrook Station Letter NYE-03007, "Laboratory Chemicals for Inclusion in NPDES Permit Attachment C," dated February 28, 2003. This letter was submitted to the EPA in accordance with the NPDES Permit and identified eleven laboratory chemicals not previously identified by Seabrook Station during the NPDES Permit renewal process. These chemicals are used in the performance of various chemical, biological and radiological analyses as well as cleaning laboratory equipment. These laboratory chemicals are discharged in de minimis concentrations – less than one part per billion which is well below the NPDES Permit limit of 0.1 part per million for the laboratory chemicals currently listed in the Permit.

4. FPL Energy Seabrook Station Letter NYE-03008, "2002 Chlorine Minimization Report," dated February 28, 2003. 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 2002, 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.
5. FPL Energy Seabrook Station Letter NYE-03009, "2003 Chlorine Transit Study Proposal," dated March 11, 2003. 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 2003 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.
6. FPL Energy Seabrook Station Letter NYE-03013, "Chlorine Transit Study Results for March 2003," dated July 7, 2003. This letter was submitted to the EPA in accordance with the NPDES Permit and documents the results of the March 2003 Chlorine Transit Study.
7. FPL Energy Seabrook Station Letter NYE-03018, Request to Discharge Dynacool 1383," dated July 29, 2003. This letter was submitted to the EPA and requested approval to discharge a replacement chlorination line antiscalant (Dynacool 1383) in accordance with Seabrook Station's NPDES Permit.
8. FPL Energy Seabrook Station Letter NYE-03020, "2003 Environmental Monitoring Program Mid-Year Report," dated July 29, 2003. 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 after thirteen years of commercial operation, 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.
9. FPL Energy Seabrook Station Letter NYD-03073, "Response to June 2003 NPDES Permit Inspection Deficiencies," dated August 25, 2003. This letter was submitted to the New Hampshire Department of Environmental Services (NHDES) and responded to the two deficiencies described in the NHDES July 22, 2003 NPDES Permit Compliance Sampling Inspection Report. The deficiencies were identified as a result of the inspection conducted on June 12, 2003 and were related to NPDES Permit oil and grease analysis holding times and Seabrook Station's Storm Water Pollution Prevention Plan.

During the inspection NHDES personnel requested that Seabrook Station personnel verify that the holding time for oil and grease analyses was in accordance with Standard Methods. Seabrook Station personnel reviewed records for the past two years and found nine times where the oil and grease holding time was exceeded out of a population of more than 400 samples. Since the holding times were exceeded by only a few days, at most, and the results from all nine subject oil and grease analyses were below the detection limit, it is likely that no oil and grease exceedences were misidentified by this condition. The corrective actions to address this situation included modifying analytical logs and the Chemistry Data Management System to include due dates for oil and grease sample analyses. In addition, oil and grease analyses are performed more frequently and the oldest samples are analyzed first.

Minor deficiencies or questions in Seabrook Station's Storm Water Pollution Prevention Plan identified during the 2003 NHDES Inspection were addressed when the Plan was updated in September 2003.

10. FPL Energy Seabrook Station Letter NYE-03023, "2002 Environmental Monitoring Report," dated August 29, 2003. This letter was submitted to the EPA and describes the environmental monitoring program for Seabrook Station. The 2002 Environmental Monitoring Report concluded that Seabrook Station has not adversely affected the balanced indigenous populations in the Hampton-Seabrook area.
11. Seabrook Station Letter NYE-03025, "Cleaning of Chlorination Line," dated October 9, 2003. This letter was submitted to the EPA and provided notification of Seabrook Station's plan to perform a cleaning of the Circulating Water System intake tunnel chlorination line in early November 2003.
12. Seabrook Station Letter NYE-03028, "October 2003 Chlorine Transit Study Results," dated December 17, 2003. This letter was submitted to the EPA in accordance with the NPDES Permit and documents the results of the October 2003 Chlorine Transit Study.
13. Seabrook Station Letter NYE-03029, "Videotape Inspection of Discharge Diffuser Nozzles," dated December 11, 2003. This letter was submitted to the EPA and provided a videotape copy of the inspection of Seabrook Station's eleven submerged offshore dual discharge diffuser nozzles in accordance with the NPDES Permit. The inspection was performed during Seabrook Station's October 2003 refueling outage. All diffuser nozzles were found to be operating properly and there was no obstructed discharge flow. No maintenance was required to be performed on any of the diffuser nozzles.

### **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 2003.

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

During 2003, there were no changes in Station design or operation, tests and equipment that involved a potentially unreviewed environmental question.

### **Non-Routine Reports**

1. FPL Energy Seabrook Station Letter NYE-03011, "Sanitary Wastewater Discharge Report – April 2, 2003," dated April 7, 2003. This letter was submitted to the EPA and NHDES in accordance with the NPDES Permit and conservatively reported that about 10-20 gallons of sanitary wastewater flowed into a storm drain from a leak in an underground sanitary wastewater line. It is believed that the discharge occurred during a period less than 24 hours. FPL Energy Seabrook, LLC stated that there were no adverse environmental consequences associated with this sanitary wastewater overflow due to the very small amount of the discharge. The cause of the sanitary wastewater discharge was due to a one-half inch hole in the four-inch diameter underground wastewater line. The underground line was repaired on April 6, 2003.
2. FPL Energy Seabrook Station Letter NYE-03031, "Unusual Fish Impingement – December 2003." This letter was submitted to the EPA in accordance with the NPDES Permit and reported an unusual fish impingement on Seabrook Station's intake travelling screens. Fish impingement decreased substantially after December 18, 2003. The high impingement event was due to weather-related conditions and did not recur, therefore, there are no specific corrective actions to prevent recurrence.