Public Service
of New Hampshire

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The Northeast Utilities System

John M. MacDonald
Vice President - Operations

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March 14, 2003

D19540

Ms. Joy J. Hilton
U.S. Environmental Protection Agency
Region I
1 Congress Street, Suite 1100 (SEW)
Boston, MA 02114-2023

Reference: NPDES Permit No. NH0001473, Schiller Station, Public Service Company of New Hampshire, issued September 11, 1990; modified May 31, 1991; modified January 24, 1995.

Dear Ms. Hilton:

Schiller Station
Noncompliance Notification

In compliance with Part II, Section D.1.e., of the referenced NPDES Permit, Public Service Company of New Hampshire (PSNH) submits this noncompliance notification for Schiller Station located in Portsmouth, NH. Allan Palmer of PSNH initially informed Stephanie Larson of the NH Department of Environmental Services of the noncompliance in a telephone conversation and left a voicemail for you on Monday, March 10, 2003. Mr. Palmer followed up with all of the event details in a conversation with you on March 12.

On Monday, March 10, 2003, at approximately 05:00, a Station Chemist noticed that water discharging from the wastewater treatment facility contained a slight tint. He collected a grab sample and found that the iron concentration was 2.9 mg/l. The daily maximum iron limit for Schiller Station is 1.0 mg/l, as determined by weekly composite sampling. Actions were taken to secure the flow from the treatment basin, which was the source of the wastewater to the treatment plant at the time. Upon investigation, it was found that boiler fireside washwater (water that is used to wash coal ash from the boiler) had been inadvertently pumped to the treatment basin in addition to a separate holding tank. Normally, these boiler washwaters are stored separately in the holding tank to allow for settling and slow processing to the treatment basin for a more managed treatment process. Specific details are provided below.

Maintenance personnel started draining washwater from the Unit 4 boiler to a transfer sump at approximately 20:00 on Sunday, March 9. A portable pump was installed in the sump to transfer the water to a separate holding tank which is typically used to store wastewaters that are generated by nonroutine maintenance activities. Unfortunately the main transfer pumps in the sump were not shut down so the washwater was allowed to be transferred, in the normal fashion, to the treatment basin, as well as to the separate holding tank. So shortly after 20:00, a portion of the washwater mixed with routine wastes in the treatment basin. At that time, the treatment basin was the supply to the water treatment facility, which was operating at approximately 35 gpm. The boiler wash continued until approximately 04:30 on March 10. It is not possible to determine when the outfall effluent iron concentration began to exceed the 1.0 mg/l limit. It is estimated that the boiler wash consisted of approximately 20,000 gallons of water.

After the treatment basin was secured at 05:30, routine station wastes were routed directly to the treatment facility and the discharge was resumed. These wastes include demineralizer regenerations and floor drains which typically have low iron concentrations and only require pH adjustment prior to discharge. A followup grab sample collected at the outfall at 13:00 had an iron concentration of 0.1 mg/l.

Periodic tests were performed on the wastewater in the treatment basin to track the iron levels as the solids settled. When the concentrations fell below the permit limit, the basin was valved to the treatment facility and normal operations were restored to fully treat and discharge the wastewater in compliance with permit limits. Station personnel are presently reviewing the entire boiler wash and treatment process in detail. Improvements will be made to the standard operating procedures to prevent such an event from reoccurring. One consideration is to install a valve header to allow the primary transfer pumps to discharge to both locations so that a portable pump is no longer needed. Standard operating procedures will be revised to include additional safeguards as needed, such as proper valve alignment, pump isolations, etc. PSNH will provide documentation of the final solution to EPA and DES within 30 days of this letter.

Given these facts, we believe the overall iron concentration for the entire day was less than the permit limit of 1.0 mg/l. As you discussed with Mr. Palmer, this event will not be included on the monthly discharge monitoring report forms since the sampling protocol did not accurately represent the effluent characteristics for the entire discharge.

If you have any questions regarding this notification, please contact Allan Palmer, PSNH Generation, at (603)634-2439.

Very truly yours,

John M. MacDonald
Vice President

cc: Ms. Stephanie Larson, Environmental Inspector
N.H. Department of Environmental Services
Water Division
Wastewater Engineering Bureau
Permits and Compliance Section
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