



*Admin #294*

December 2, 2009

D28478

U.S. Environmental Protection Agency  
Region 1: New England  
Office of Ecosystem Protection  
NPDES Industrial Permit Branch (CIP)  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

Dear Sir/Madam:

Merrimack Station  
NPDES Permit No. NH0001465  
2008 Annual Fish Impingement Report

Public Service of New Hampshire (PSNH) submits this Annual Fish Impingement Report for the year 2008 pursuant to Part I., Section A.10.b of the Merrimack Station NPDES Permit, No. NH0001465. This permit condition requires PSNH to conduct impingement monitoring at Merrimack Station according to the provisions below.

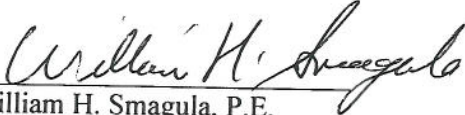
- PSNH shall provide impingement monitoring at Merrimack Station when flows from Garvins Falls Hydroelectric Station are less than 900 cfs during any period from July 1 through October 15.
- PSNH shall collect all fish from both MK-1 and MK-2 traveling screen washes during one continuous 48-hour period per week when the conditions outlined above are met.
- PSNH shall report in writing to the New Hampshire Fish & Game Department (NHFGD), United States Fish and Wildlife Service (USFWS), New Hampshire Department of Environmental Services (NHDES) and the United States Environmental Protection Agency (USEPA) any Extraordinary Impingement Event (EIE) at Merrimack Station. An EIE is defined as an event when 50 or more fish at any one time, of any size or species, are either distressed or killed as a result of impingement.

Based on river flows at Garvins Falls Hydro, Merrimack Station was only required to collect two weekly samples from the intake screens between July 1 and October 15. No fish were collected in either sample, therefore the annual impingement rate was zero. Table 1 summarizes the sampling sessions. The volume of water reported is based on circulating pump capacities and the number of pumps operating during each screen wash cycle. Each operating unit has two pumps; the pumps servicing Unit 1 are rated at 63 cfs each (126 cfs total), the pumps servicing Unit 2 are rated at 144.5 cfs each (289 cfs total).

As demonstrated every year, the rate of fish impingement at Merrimack Station is extremely low by all industry standards even though the data is collected during worse case conditions, i.e., when river flows are less than 900 cfs. There were no extraordinary impingement events during the 2008 monitoring period.

Should you have any questions regarding this program, please contact Allan Palmer at (603) 634-2439.

Very truly yours,

  
William H. Smagula, P.E.  
Director - Generation

cc: Ms. Sharon M. DeMeo  
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~~Mr. Eric Nelson~~  
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NH Department of Environmental Services  
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Mr. Joseph F. McKeon  
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Mr. John Magee  
New Hampshire Fish and Game Department  
Inland Fisheries Division  
11 Hazen Drive  
Concord, NH 0330

TABLE 1

Merrimack Station  
Fish Impingement Monitoring Program  
2008 Schedule & Impingement Rates

<u>48 Hour Sample Dates</u>	<u>Unit(s) Sampled</u>	<u>48 Hour Flow Through the Units</u>	<u>Impingement Rate</u>	<u>Fish Count</u>
07/15 - 07/17	1&2	71,712,000 cu. ft.	0	0
07/20 - 07/22	1&2	71,712,000 cu. ft.	0	0

The impingement rate for 2008 was 0 fish per million cubic feet of screened water.