



State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

64 No. Main Street, P.O. Box 2008, Concord, NH 03302-2008

(603) 271-2457 FAX (603) 271-7894



December 26, 1997

Allan Palmer, Senior Engineer
PSNH - Merrimack Station
97 River Road
Bow, N.H. 03304

RECEIVED

JAN 02 1998

TPA WATER ENFORCEMENT

Subject: National Pollutant Discharge Elimination System (NPDES) Compliance
Inspection at Public Service of New Hampshire (PSNH) Merrimack Station (MS)
Bow, NPDES # NH0001465

Dear Mr. Palmer:

On October 31, 1997, I initiated a Compliance Sampling Inspection (CSI) at PSNH-MS in Bow. Objectives of a CSI include determining compliance status with NPDES permit conditions, verifying accuracy of permit required information and verifying the adequacy of permittee sampling and monitoring. Samples collected during the CSI help support these objectives. The following people were present during this inspection:

Allan Palmer, Senior Engineer, PSNH
Bruce Evans, Maintenance Supervisor, PSNH-MS
Dave Fredette, Working Foreman, Chemistry, PSNH-MS
Lori Pelletier, Environmental Inspector, NHDES
Kendall Perkins, Environmental Inspector, NHDES

This inspection involved evaluations of the PSNH-MS permit, records, reports, site, effluent, receiving waters, laboratory and self-monitoring program. I note the following:

1 - PSNH-MS had a Permit pH excursion on March 25, 1997. On that day, the minimum effluent (Station N-5) pH was 6.44. The minimum allowable pH at Station N-5 is 6.5. Please note that some pH excursions are considered non-violating subject to specific time weighted criteria. In the future, PSNH-MS should evaluate all excursions with the time weighted criteria found in Title 40, code of Federal Regulations 401.17 to determine if a violation has occurred. The corresponding Discharge Monitoring Report (DMR) should accurately reflect violations. PSNH-MS should explain non-violating excursions in the DMR cover letter.

NHDES needs more information concerning this excursion to determine if it is a violation. We request all PSNH-MS pH data collected for N-5 during March 25, 1997.

2 - Lori Pelletier conducted a review of the MS laboratory and Quality Assurance Manual on November 3, 1997. Her review revealed the following deficiencies:

- The PSNH-MS Laboratory procedures do not include chlorine blanks. Blanks are an important part of laboratory quality control. PSNH-MS should implement chlorine blanks as soon as possible.
- The PSNH-MS Oil & Grease Bench sheet did not provide a location for recording the original sample pH adjustment. Without this information, verification of sample pH adjustment is not possible. PSNH-MS personnel corrected this deficiency during this CSI.
- The laboratory Quality Assurance Manual did not include the proper bottle washing procedure for metals. The bottle washing procedure should include three consecutive rinses with deionized water, whereas the procedure in the Quality Assurance Manual called for only one rinse with deionized water. PSNH-MS personnel corrected this deficiency during this CSI.

3 - NHDES collected Iron samples from outfall 003A, during this CSI. We split these samples, in duplicate, for analysis at the Laboratory Services Unit of NHDES and the PSNH-MS laboratory. After initial analysis, the laboratories switched the remaining samples and reanalyzed. The results of this sampling effort are presented in Chart 1, below.

Chart 1: Results of split Iron sampling between NHDES and PSNH-MS (all results are in units of mg/L)				
Laboratory	Method	Original Iron	Original Iron Dup	Swapped Iron
NHDES	EPA-200.7	0.611	0.605	0.642
PSNH-MS	EPA-236.1	0.61	0.65	0.56
% Difference		0.2	6.9	12.8

All results are within the Permit limits for Iron. We also note that the results attained by the two laboratories do not differ by more than 20%. This is an acceptable margin of error.

We conducted this sampling effort in response to variant Iron results between NHDES and PSNH-MS. NHDES collected an Iron sample from Outfall 003A on February 24, 1997. This sample was split with the PSNH-MS Laboratory. The results of this split

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analysis proved to have an unacceptable relative percent difference (53.7%). The NHDES result was 1.08 mg/L. The PSNH-MS result was 0.5 mg/L. After a review of the analytical procedures at our laboratory, NHDES believes that the iron result of 1.08 mg/L is valid. The Laboratory Services Unit of NHDES is certified by New Hampshire and the United States Environmental Protection Agency to conduct Iron analyses.

Please note that areas not covered in this CSI may be evaluated during a future NPDES inspection, and any area evaluated during this CSI is subject to a more thorough evaluation in the future.

I would like to thank everyone for your time and efforts during this compliance inspection. Furthermore, I am confident of a professional and timely response to the items mentioned in this report. Feel free to contact me if you have any questions.

Respectfully,



Kendall L. Perkins Jr.
Environmental Inspector,
Surface Water Quality Bureau

cc.

Douglas H. Starr, SWQB, NHDES

Joy Palmer, Compliance Section, USEPA

Ronald Chevalier, Vice President, Northeast Utilities System

Bruce Evans, Chemistry Supervisor, PSNH-MS

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

[illegible]

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) PSNH - Merrimack Station 97 River Rd Bow NH 03304	Entry Time/Date 9:00 a.m. 10-31-97	Permit Effective Date 7/25/92
	Exit Time/Date 11:00 a.m. 11/03/97	Permit Expiration Date 7/25/97
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Allan Palmer, Engineer 669-4000 Bruce Evans, Supervisor 224-4081	Other Facility Data <div style="text-align: center;"> </div>	
Name, Address of Responsible Official/Title/Phone and Fax Number Ronald Chevalier, VP, Northeast Utilities PO Box 270, Hartford, CT 06142, 203-665-5000 <div style="text-align: right;"> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No </div>		

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/>	Permit	<input checked="" type="checkbox"/>	Flow Measurement	<input checked="" type="checkbox"/>	Operations & Maintenance	<input type="checkbox"/>	CSO/SSO (Sewer Overflow)
<input checked="" type="checkbox"/>	Records/Reports	<input checked="" type="checkbox"/>	Self-Monitoring Program	<input type="checkbox"/>	Sludge Handling/Disposal	<input type="checkbox"/>	Pollution Prevention
<input checked="" type="checkbox"/>	Facility Site Review	<input type="checkbox"/>	Compliance Schedules	<input type="checkbox"/>	Pretreatment	<input type="checkbox"/>	Multimedia
<input checked="" type="checkbox"/>	Effluent/Receiving Waters	<input checked="" type="checkbox"/>	Laboratory	<input checked="" type="checkbox"/>	Storm Water	<input type="checkbox"/>	Other:

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

See attached report.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Kendall Perkins, Jr.	NHDES/WD/271-2457	
Signature of Management Q.A. Reviewer	Agency/Office/Phone and Fax Numbers	Date
Douglas Starr <i>DJ Starr</i>	NHDES/WD/271-2457	12/15/97