



**Public Service
of New Hampshire**

September 3, 2008

SEP 09 2008

D27234

State of New Hampshire
Department of Environmental Services
Water Division
P.O. Box 95, 29 Hazen Drive
Concord, N. H. 03302-0095
Attn: Mr Thomas Croteau

RE: PSNH Merrimack Station NPDES Permit No. NH0001465 Environmental
Monitoring Program pH and DO data outages at S0 station July/August 2008.

Dear Tom,

During a four week period beginning approximately the last week of July and the following three weeks in August 2008, PSNH Merrimack Station, station S0 pH and dissolved oxygen instrumentation, suffered multiple data outages resulting from multiple lightning strikes due to electrical storms passing through the area.

Multiple layers of instrumentation isolation devices, surge protection devices, pH and DO analyzers and probes were damaged beyond repair and were replaced with backup units from the stocked inventory as they failed. Any backup units removed from stock are automatically reordered electronically from Rosemount Analytical in Irvine California, through their local distributor Pond Technical Sales, in Portland, Maine.

To increase data gathering flexibility we employed a Rosemount 1056 dual input analyzer and wired the pH and DO probes to this analyzer. The analyzer and both probes were damaged twice due to a lightning surge. The original individual analyzers were damaged beyond repair. At one point we had four 1056 analyzers in for repair at Rosemount with three out of four total losses. After numerous backup unit replacements over a number of weeks our stock inventory became depleted due to no shipments from Rosemount Analytical. They had the NEMA 4 analyzer bodies, but no control boards, which were on back order and were not available. During this period of time we employed grab sample data as much as possible to maintain continuous monitoring.

We then employed a hardened Rosemount 5081 pH analyzer at station S0 hoping that it would survive the ongoing electrical storm activity and restore continuous pH monitoring. Following the installation, a storms electrical surge damaged the new pH probe beyond repair and we lost the LCD screen on the 5081 pH analyzer.

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The Northeast Utilities System

John M. MacDonald
Vice President - Energy Delivery and Generation

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During this time additional lightning protection was added to the circuit breaker panel and the isolation device bus at S0 to further protect the installed devices. In addition, the local electrical distribution company UNITIL, was asked to replace the neutral on their AC distribution feed at the point of delivery to the Merrimack Station property on River Road. We plan to install new electrical protection equipment as it enters the plant property.

On August 20, 2008 we installed a new 3300HT pH probe and a new 5081 pH analyzer and both units have been in service since their installation. Rosemount was able to ship a new 1056 dual input analyzer along with the 5081, which allowed us to restore the DO continuous monitoring as well.

The August 2008 data reports for the pH and dissolved oxygen continuous monitoring will reflect data gathered along with replacement data used to maintain NPDES permit compliance. Temperature monitoring was not impacted, except for an AC power outage due to lightning on August 1, 2008.

We are in the process of replenishing our stocked inventory at this time.

If you have any questions, please contact Mr. Paul Basiliere, PSNH Production Operations Services at (603) 634-2684.

Very Truly Yours,

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE



John M. MacDonald, Vice President- Energy Delivery and Generation

cc: Ms. Joy Hilton, Water Technical Unit, United States Environmental Protection
P.O. Box 8127, Boston, MA 02114