# *Poughkeepsies' Water Treatment Facility*

**MEMORANDUM**

April 1, 2014

**To:** Joint Water Board

**From:** Randy J. Alstadt, P.E.
Water Plant Administrator

**Subject:** **April 2014 Status Report**

## Water Quality/Production Issues

Process data for March 2014 and April 2014 are presented in the following tables. Average Daily Flow decreased 0.22 MGD (-2.6 percent) in April 2014 compared to March 2014. Quality was excellent. Plant effluent turbidity averaged 0.04 NTU while influent turbidity averaged 69 NTU (99.8% reduction).

**Treatment Process Comparison March 2014 vs. April 2014**

| Parameter | March-14 | | | April-14 | | |
|---|---|---|---|---|---|---|
| | Average | Maximum | Minimum | Average | Maximum | Minimum |
| Raw Flow, MGD | 8.70 | 11.70 | 4.96 | 8.47 | 11.00 | 5.51 |
| Raw Turbidity, NTU | 17 | 86 | 6 | 69 | 206 | 21 |
| Effluent Turbidity, NTU | 0.03 | 0.07 | 0.02 | 0.04 | 0.15 | 0.02 |

**Sludge Process Comparison March 2014 vs. April 2014**

| Parameter | March-14 | April-14 | Change | |
|---|---|---|---|---|
| | | | Quantity | Percent |
| Residual Solids, gallons | 947,684 | 961,276 | 13,592 | 1% |
| Backwash, gallons | 2,613,000 | 1,132,000 | (1,481,000) | -57% |
| Thickener, gallons | 471,709 | 260,019 | (211,690) | -45% |
| Plate Settler, gallons | 35,698 | 20,645 | (15,053) | -42% |
| Centrifuge #1 gallons | 286,869 | 154,952 | (131,917) | -46% |
| Centrifuge #2 gallons | 231,905 | 142,727 | (89,178) | -38% |
| Centrifuge Total | 518,774 | 297,679 | (221,095) | -43% |
| Centrifuge #1 gpm | 10.3 | 6.5 | (3.8) | -37% |
| Centrifuge #2 gpm | 9.2 | 6.0 | (3.2) | -35% |
| Solids Hauled, tons | 227.69 | 266.55 | 39 | 17% |

## Plant Update

Plant operated well.

As of April 30th the solids thickener solids level was at 12.5 feet, 9 feet greater than March 31st . Level was higher than planned due to storing solids for the April 28th centrifuge testing. We continue to closely monitor levels and encourage overtime when level exceeds 10 feet.

Total production from centrifuges decreased 221,095 gallons or 43-percent.
#2 filter drain valve actuator was replaced resulting in unresolved control problem.

*telephone (845) 451-4173 x 2003* *fax (845) 451-4175*
*e-mail: ralstadt@pokwater.com*

Remaining ammonia has been removed from facility.

Powdered Activated Carbon system has been removed in preparation for upgrade. System has not been used in over 20 years. Ozone combined with Biologically Activated Filters will eliminate future need for carbon.

Pilot filters were cleaned and new media was installed to test alternatives for upgrade.

**Plant Upgrade**

Westfalia, the low bidder for the centrifuges, arrived on site to conduct their pilot test.

**Annual Water Quality Report**

The 2013 report was placed on web site and delivered to our customers. State notifications were submitted.

**Annual Sanitary Survey**

Lee Felshin of Dutchess County Department of Health conducted our survey March 31, 2014. Lee requested we update the Vulnerability Plan to include actions to reduce risk and update the Emergency Plan.

**IBM Negotiations**

IBM is finalizing changes we have agreed to.

**Jar Testing**

Three (3) jar tests were completed in April. Polyaluminum Chloride (PaCl) and Alum tests were conducted to determine optimal chemical dosage for organic removal. Alum does not remove turbidity as well as PaCl. Organic removal was similar with both coagulants.

*telephone (845) 451-4173 x2003* *fax (845) 451-4175*
*e-mail: ralstadt@pokwater.com*