Poughkeepsies' Water Treatment Facility

MEMORANDUM

February 28, 2012

To: Joint Water Board

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

Subject: **November 2011 Status Report**

Water Quality/Production Issues

Process data for October and November 2011 are presented in the following tables. Flow was down 0.23 MGD in November, which is typical as days become cooler. Quality was excellent. Plant effluent turbidity averaged 0.04 NTU while influent turbidity averaged 54 NTU (99.99% reduction).

Treatment Process Comparison November 2011 vs. October 2011

Parameter	Oct-11			Nov-11		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Flow, MGD	9.50	10.30	5.84	9.27	11.24	7.04
Raw Turbidity, NTU	74	100	45	54	164	27
Effluent Turbidity, NTU	0.05	0.07	0.04	0.04	0.07	0.03

Sludge Process Comparison September 2011 vs. August 2011

Parameter	Oct-11	Nov-11	Change	
			Gallons	Percent
Residual Solids, gallons	916,624	763,709	(152,915)	-17%
Backwash, gallons	697,000	90,000	(607,000)	-87%
Thickener, gallons	433,874	200,481	(233,393)	-54%
Plate Settler, gallons	97,387	37,306	(60,081)	-62%
Centrifuge #1 gallons	249,304	21,373	(227,931)	-91%
Centrifuge #2 gallons	244,841	172,718	(72,123)	-29%

Plant Update

Plant operated well. Centrifuge #1 failed and had to be sent out for repairs. Costs of repair will be approximately $24,000. As a result, centrifuge production was down 300,054 gallons which resulted in overflowing the thickener with solids. Fortunately, we have not had any negative impact on process. Centrifuge #1 is expected to be returned in mid December.

Low Lift Pump Rebuilds

Low Lift #4 was returned and reinstalled December 4th. Low Lift #3 was taken out for repairs December 16th and is expected to be returned before year end. Cost of Low Lift pump repairs were less than originally projected.

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Engineering Study

A meeting was held with CH2M Hill, Morris Associates City distribution representatives, Town distribution representatives and plant staff to review other options that can be taken to reduce disinfection byproducts. Recommendations include pilot testing potential of THM reduction by adding aeration into storage tanks, flushing and integrating City and Town distribution models so that we can identify ways to minimize detention prior to customer consumption.

Marist Tunnel/ Traffic Rerouting

We have not received remote access to the gate which will allow our deliveries to use the main gate.

UV Disinfection

UV units operated well. Sixteen (16) sleeves were received that will be installed in December. Installed sleeves have reached their useful life and we have observed increase power demand as sleeves dull. Sixteen (16) more sleeves will be delivered and installed in December or early January followed by sixteen (16) more in early 2012.

Thickener

Maintenance replaced the damaged tarp that covers the thickener. The tarp is necessary to contain heat in winter that is added to prevent freezing.

Intake Inspection

Divers inspected our intakes. Some debris was removed from stand pipes. Overall condition is good.

Annual Sanitary Survey

Lee Felshin of Dutchess County Department of Health conducted our Sanitary Survey on November 18th. The results were good with a requirement to develop an Action Plan to meet new DBP regulation by 1-31-2012

Raw Water Sampling

Results of Primary Organic Contaminates (POC) taken in August were received. Results identified toluene at a concentration of 10 µg/L in the raw water and 6 µg/L in plant effluent which exceeds the maximum contaminant level (MCL). Required action was to resample and if average of samples exceeded MCL a drinking water violation would occur. The Health Department was contacted and agreed to re-sampling plan. Six (6) additional raw water and plant effluent samples were taken which did not detect toluene or any other POCs, as a result we did not have an MCL violation. It was agreed that in December and every month in 2012 we would sample for POCs.