

Poughkeepsies' Water Treatment Facility

MEMORANDUM

December 3, 2018

To: Joint Water Board
From: Randy J. Alstadt, P.E.
Water Plant Administrator
Subject: December 2018 Status Report

Water Quality/Production Issues

The December average daily raw water flow was 10.54 MGD compared to 10.98 MGD in November and 10.43 MGD in November 2017. Water quality averaged 0.03 NTU which is slightly better than October 2018. The drinking water maximum contaminant level is 0.30 NTU.

Plant Update

Plant operated well. The solids thickener had 6.0 feet of solids at the end of December compared to 4.5 feet at the end of November 2018. Centrifuge average operating rate was 14.5 gpm compared to 15.2 gpm in November 2018.

Treatment Process Comparison November 2018 vs. December 2018

Parameter	November-18			December-18		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Raw Flow, MGD	10.98	12.61	8.45	10.54	12.78	9.08
Raw Turbidity, NTU	53	190	12	46	115	17
Effluent Turbidity, NTU	0.03	0.05	0.02	0.03	0.06	0.02

Sludge Process Comparison November 2018 vs. December 2018

Parameter	November-18	December-18	Change	
			Quantity	Percent
Residual Solids, gallons	1,235,162	781,636	(453,526)	-37%
Backwash, gallons	1,734,000	1,443,000	(291,000)	-17%
Thickener, gallons	776,204	461,552	776,204	100%
Plate Settler, gallons	68,924	31,728	68,464	99%
Centrifuge #1 gallons	458,506	149,608	(308,898)	-67%
Centrifuge #2 gallons	344,710	335,717	(8,993)	-3%
Centrifuge Total	803,216	485,325	(317,891)	-40%
Centrifuge #1 gpm	15	15	0.6	4%
Centrifuge #2 gpm	16	14	(2.1)	-13%
Solids Hauled, tons	451.00	423.73	(27)	-6%
Feed Solids Concentration	4.0	6.4	2.3	58%
Centrifuge #1 Cake percent	27.2	31.3	4.1	15%
Centrifuge #2 Cake percent	27.4	30.5	3.0	11%

Our ozone system ran well. Basin #2 remains out of service to reduce liquid oxygen consumption.

Filters ran well. Average filter runs have returned to preconstruction times. Average Filter Run volumes in December 2018 were 19,834 gallon/ft2 compared to 7,093 gallons /ft2 in September 2018 an increase of 280-percent.

On December 5th Central Hudson had a spill at their redemption site roughly 1,000 feet south of our facility. On December 6th a shine was observed in our solids contactors, sedimentation basins and sludge thickener. Plant effluent was tested by our laboratory, State Health Department and Central Hudson. All tests were clean, however, a sample of the sheen had a low level of pyrene.

On December 12th Low Lift Pump failed. The following week the motor was removed and the pump was taken to the manufacturers shop for analysis. The repair shop has quoted us a repair estimate of \$30,192. We will be meeting with a representative of the pump to determine where we go from here.

On December 23rd the motor on Low Lift Pump #4 failed. The motor was removed and replaced with the motor from Low Lift #1 and is currently operational. The motor is currently at a Precision Motor shop for diagnosis and repair estimate. Armani Engineering is investigating the controls to determine why overload did not protect motor.

Clark Patterson and Lee started Flow Study with kickoff meeting on December 13th.

Upgrade

Smith Controls and City Purchasing are finalizing the PLC upgrade contract. Trailer manufacturing is continuing.

RLJ Electric has agreed to process a change order for their remaining work which will complete their contract. The Change Order and final payment are being processed.

Filter and Disinfection Studies

Tighe Bond submitted final reports on the Disinfection Study and Filter Study.

Staffing

One of our Maintenance Mechanics has been off payroll since January 20, 2018 due to a non-work injury. City scheduled two (2) appointments for him to determine if he is capable to perform job duties. He failed to attend appointments. City has now advised him in writing that he will be terminated at the end of day January 20, 2019. He has not responded to the letter.