

Water Pollution Control Plant Monthly Report



JANUARY 2012

OVERVIEW AND HIGHLIGHTS

The start of a new year at the Water Pollution Control plant began quietly on the weather front with warmer temperatures and very little snow. The milder weather has allowed the plant personnel to continue focus on plant operations and maintenance vs. snow and ice removal.

Maintenance worked on the repair of raw sludge pumps that required new bearings and parts to be returned to service. We continue to work towards the completion of radio communications at the Jackson Street and Heisley Park pump stations. We have contacted the manufacturer of the radio communication software to complete the necessary programming of the equipment. The final effluent meter equipment, located in the plant effluent pipe, was serviced and re-calibrated for the new year.

The re-organization of plant files was started this month. We have taken many of the old maintenance equipment files and organized them in the file storage room in the Administration Building 3rd floor. In addition to the file organization we have moved Kevin Aiken's safety office from the tertiary building to the file storage room and added the necessary electrical outlets and computer jacks.

Chemical bidding, specifically alum, was bid this month and the new pricing is higher than we expected. The new pricing is \$50 per dry ton more than last year. This price increase will result in an annual increase of approximately \$5000.00 for alum, used to precipitate phosphorus from the plant effluent. This chemical treatment process is necessary to meet phosphorus limits in the plants NPDES permit with OEPA.

WPCP MONTHLY STAFF MEETING AND DISCUSSION

1. Operations
 - No. 1 Raw Sludge Pump Status – Repair parts are expected today to complete repair to No. 1 Moyno pump.
2. Anaerobic Digester Heater – The selection of the new digester heater is ongoing. We will be deciding on the method of designing and purchasing of the new digester in January, 2012.
3. Pump Station Radio Communication – Working towards radio communications at Jackson Street and Heisley Pump Stations. Will eliminate the copper line phone communications from ATT.
4. 2012 Capital – Mower, Doors and Windows and Industrial Pretreatment Vehicle.
5. Reviewed Department Head meeting minutes with plant staff.
6. Safety Meeting Discussion – All plant personnel need to aware of hazards during snowfall events.
7. Maintenance Truck – New maintenance truck arrived last week.

JANUARY EVENTS AND MEETINGS

1. On January 5, 2012 Mike Kovatch, North Bay Construction met with Joe Elliott, Joe Jackson and Randy Bruback to discuss the proposed sludge digester heater project.
2. Process Valve and Equipment representative met with Randy Bruback and Joe Jackson on January 5, 2012 to review 2012 maintenance projects and opportunities for new valves or maintenance equipment.
3. A representative from North Coast Instruments, valve actuator equipment, met with Joe Jackson and Randy Bruback on January 6, 2012 to discuss the replacement of the Rotork valve actuator on the Tertiary Screw Pump gate vane. The replacement of the valve actuator will allow the automated operation of the gate valve during high flow events.

4. The WPCP held its monthly safety meeting on January 11, 2012. The meeting was chaired by the plant's safety coordinator, Kevin Aiken.
5. Applied Specialties, polymer distributor, was at the WPCP on January 12, 2012 to bench test their polymer with our plant sludges.
6. An odor control specialist met with plant personnel on January 17, 2012 to discuss odor control opportunities. His company manufactures a chemical spray that when sprayed on sludge and grit reduces the odors emitting from the material. The WPCP is trial testing the chemical to determine its effectiveness on plant material.
7. Joe Elliott, James Boykin, Jim Davidson and Bud Skaggs attended the annual NESOWEA Operations Seminar in Richfield, OH on January 19, 2012. The annual event had an attendance of over 200 wastewater professionals in Northeast Ohio.

GOALS AND ACCOMPLISHMENTS

1. Zero loss time for 2011 at the Water Pollution Control Plant.
2. Plant staff is in the process of reviewing files and records, to determine the required need for future storage.
3. Evaluating the replacement of the existing spray cleaning configuration that cleans the sludge filter press belt and determine the best alternative to improve the cleaning process.
4. Meeting with CT Consultants to review the process for our NPDES permit renewal, scheduled in 2013. Specifically we are required to submit new local limit values for our industrial users within the City's sewerage system.

SAFETY MEETING MINUTES

January 11, 2012 @ 10:30am

1. Kevin shared a copy of the November/December citywide injury report he received at the city safety meeting.
2. The city has a new BWC representative for the Garfield Heights office. His name is Tom Gallagher.
3. Kevin reported that the workers compensation claims in 2011 were reduced to 35 which are down from as many as 46 in 2006.
4. The city has kept its workers compensation claims down, which allows us to be in a retrospective program. As of September 2011 the city has seen a savings of approximately \$1.5 million.
5. In 2012 Electric Distribution has 4 AMP Ohio programs scheduled that all employees are invited to attend. Kevin has a copy of the list with dates and topics if anyone is interested in attending. The committee also discussed possible monthly safety topics we could review at our plant.
6. It was determined that the hardhats at the plant need to be replaced and Kevin was to get pricing and get that information to Randy.
7. The CPR certification for the plant employees will expire in June. Randy asked Kevin to contact the American Heart Association to schedule training and recertification for all WPCP employees.
8. Joe Jackson is having the maintenance department install a new conduit and electrical box for the safety light at the end of the tunnel in the administration basement.
9. Kevin is checking on having all of the fall restraint equipment inspected and recertified.

Mission Statement

The mission of the Water Pollution Control Plant is to provide the most effective customer oriented wastewater collection and treatment to the citizens of Painesville.



**Grand River
Painesville, OH**

Results

	<u>This Month</u>	<u>Last Month</u>
Avg. Daily Flow	4.89 MGD	5.37 MGD
Flow Treated	151.58 Mill. Gal.	166.32 Mill. Gal.
Raw PO	3.38 Mg/L	2.73 Mg/L
Final PO	0.29 Mg/L	0.49 Mg/L
% Removed	91.4 %	82.1 %
PO to River	0.183 Tons	0.340 Tons
Raw C-BOD	90 Mg/L	71 Mg/L
Final C-BOD	1 Mg/L	1 Mg/L
% Removed	98.9 %	98.6 %
C-BOD to River	0.63 Tons	0.69 Tons
Raw Suspended Solids	143 Mg/L	131 Mg/L
Final Suspended Solids	3 Mg/L	2 Mg/L
% Removed	97.9 %	98.5 %
Suspended Solids to River	1.90 Tons	1.39 Tons

Meters

The Total Plant Flow meter was calibrated weekly, and found to be correct. The Lubrizol meter is checked weekly. The Total Plant Flow meter recorded 151.58 million gallons flow. The Lubrizol meter recorded 7,069,000 gallons flow.

Detritors

0.99 tons of grit was removed during the month.

Comminutors

0.71 tons of screenings was removed during the month.

Chemical Treatment

21700 pounds of alum was required at a cost of \$3,255.00 for the removal of 3906.3 pounds of phosphorus. Cost of phosphorus removal for the month was \$0.83/pound.

Primary Clarifiers

The primary clarifiers operated satisfactorily during the month, removing 393,833 gallons of raw sludge containing 4.6% solids.

Anaerobic Digesters

The primary digesters operated satisfactorily during the month, transferring 521,491 gallons of raw sludge for pressing containing 3.3 % solids.

Secondary Treatment

The secondary clarifiers operated satisfactorily during the month.

Tertiary Treatment

The tertiary filters operated satisfactorily during the month.

Liquid Sludge

The filter press processed 586,684 gallons of liquid sludge producing 252.03 tons of wet cake including 65,193 gallons of water plant sludge containing 23.7% solids or 59.37 tons of dry solids. 1045.5 pounds of polymer were used at a cost of \$1,085.23. Cost of disposal at the Lake County Landfill was \$7,611.90.

Digester and Greenhouse Heating

The anaerobic digesters consumed 17,071 cubic ft. of generated methane and 176,379 cubic ft. of purchased gas. The greenhouse used 14,292 cubic ft. of purchased gas.

Pump Stations

Erie Street pumps recorded 130.50 hours and pumped 783,000 gallons of wastewater.

Fern Drive pumps recorded 35.50 hours and pumped 468,600 gallons of wastewater.

Poplar Lane pump recorded 129.24 hours and pumped 4,264,920 gallons of wastewater.

Jackson Street pump recorded 56.04 hours and pumped 1,025,532 gallons of wastewater.

Recreation Park pump recorded 240.71 hours and pumped 4,332,780 gallons of wastewater.

Sanford Street pump recorded 131.70 hours and pumped 1,975,500 gallons of wastewater.

Valley View pumps recorded 26.05 hours and pumped 281,340 gallons of wastewater.

Brookstone flow meter recorded 1,086,301 gallons of sewer flow.

The Seven (7) pump stations pumped 13,131,672 gallons of wastewater and 36 man-hours were required in maintenance.

Respectfully Submitted,



Randy Bruback
Superintendent
Water Pollution Control Plant