

Rennaker, Joanne (DEQ)

From: Prysby, Mike (DEQ)
Sent: Tuesday, April 14, 2015 3:03 PM
To: Crooks, Jennifer (crooks.jennifer@epa.gov)
Cc: Busch, Stephen (DEQ)
Subject: March MOR, Flushing
Attachments: March 2015 MOR.pdf

Jennifer,

Attached is the Flint WTP March 2015 MOR. Upon closer review of the MOR, CFE and PTAP turbidities slightly above 0.3 NTUs were noted in and around the 20th of the month (Pages 2 and 3). As the run-off component of water flow into the Flint River watershed increased due to snow-melt, raw water hardness dropped; thus, calling for the need to adjust the softening process. Raw water turbidities also increased around this time due the increased run-off. Operators may have been slow to react to the change in hardness as it appears over-softening and lime-carry over occurred on the 20th. CFE turbidities; however, were below 0.3 NTUs in more than 98% of the samples for the month. There were also no detects for total or fecal coliform (PTAP or distribution), and adequate free chlorine residuals were maintained (PTAP & distribution). We plan to discuss plant operation in more detail with the operators and provide assistance in establishing a protocol for spring run-off conditions in order to avoid future upsets in the treatment process.

I also had the opportunity to discuss distribution system flushing with the distribution system OIC. Historically (while purchasing water from Detroit), Water Service Center (WSC) staff flushed in conjunction with winterizing hydrants; however, there was no order to flushing and their main intent was to "move water around". Given the recent TTHM issues (aggravated by stagnation) and WQ complaints, WSC staff are working at improving their flushing program by implementing unidirectional flushing. They are also targeting specific areas and work to flush from transmission mains out to the end of smaller distribution system mains. The program is still evolving as WSC continues to encounter valves that either do not function properly or are set in the wrong position.

If you have any further questions concerning the MOR, flushing, or other water related matters, please don't hesitate to contact me.

Michael Prysby, P.E.
District Engineer
Office of Drinking Water and Municipal Assistance
517 290-8817

CITY of FLINT WATER TREATMENT PLANT MONTHLY OPERATION REPORT

SUPPLY NAME: CITY of FLINT WATER PLANT
 WSSN: 2310

Michael Glasgow
 Operator-in-Charge

March 2015
 Month/Year

F-1R, F-2
 Certification of Operator-in-Charge

F-1
 Water Plant Classification

Michael Glasgow
 Signature of Operator-in-Charge

Genesee
 County

Treatment Rate and Filter Data

Maximum Treatment Rate:	<u>25.4</u>	Million Gallons per Day
Rated Plant Capacity:	<u>36</u>	Million Gallons per Day
Average Filter Run:	<u>96</u>	Hours
Average Head Loss:	<u>n/a</u>	Feet *(filter head loss meters not operational)
Average Filtration Rate:	<u>2.3</u>	Gallons Per Square Feet per Minute
Maximum Filtration Rate:	<u>3.3</u>	Gallons Per Square Feet per Minute
Average Wash Water Use:	<u>1.3%</u>	Percent of Treated Water

Chemical Data

Chlorine on hand:	<u>20,000</u>	lb.	Est. supply:	<u>19</u>	days
Primary Coagulant (Ferric Chloride) on hand:	<u>167,700</u>	lb.	Est. supply:	<u>9</u>	days
Lime (CaO) on hand:	<u>348</u>	tons	Est. supply:	<u>20</u>	days
Fluoride on Hand:	<u>23,300</u>	lb.	Est. supply:	<u>48</u>	days
Cost of All Chemicals per Million Gallons:	<u>n/a</u>	dollars			
Total Power Cost per Million Gallons:	<u>n/a</u>	dollars			

Remarks

Confluence Point # 1 (N)

Confluence Point # 2 (S)

Number of filter confluence samples > 0.3 NTU:

2

4

Number of filter confluence samples collected:

242

242

Percent of filter confluence samples > 0.3 NTU:

0.8%

1.7%

Number of filter confluence samples > 1 NTU

0

0

Did any individual filter exceed:

1.0 NTU in two consecutive measurements taken 15 minutes apart?

NO

If yes, attach specific filter(s) information and indicate required follow-up status.

0.5 NTU in two consecutive measurements taken 15 minutes apart after 4 hours of operation?

NO

If yes, attach specific filter(s) information and indicate required follow-up status.

1.0 NTU in two consecutive measurements taken 15 minutes apart for 3 consecutive months?

NO

If yes, attach specific filter(s) information and indicate required follow-up status.

2.0 NTU in two consecutive measurements taken 15 minutes apart for 2 consecutive months?

NO

If yes, attach specific filter(s) information and indicate required follow-up status.

Was continuous (every 15 minutes) filter monitoring equipment off-line during the month?

NO

If yes, indicate date(s), duration, and individual filter grab sampling frequency on a separate sheet.

Did POE disinfectant residual fall below 0.2 ppm during the month?

NO

If yes, indicate date(s) and duration on a separate sheet.

Was minimum C*T credit achieved for the entire month?

YES

If no, indicate on a separate sheet the date(s) not achieved.

Was continuous POE chlorine residual monitoring equipment off-line during the month?

NO

If yes, indicate date(s) and duration on a separate sheet.