
From: Cook, Pat (DEQ)
Sent: Monday, September 09, 2013 10:57 AM
To: Prysby, Mike (DEQ); Busch, Stephen (DEQ)
Subject: FW: Flint WTP CT
Attachments: FlintCTcalculator.xls

Steve spreadsheet is correct. If you open it up and in the flow rate box insert 18 mgd rather than 36, you'll notice the log inactivation achieved is 0.46, which is what Mike came up with this morning when he used 18 mgd. This is not a %, it's a log number. They need 0.5 logs but are getting 0.46, that's 92% of what they need.

pat

From: Busch, Stephen (DEQ)
Sent: Friday, August 30, 2013 4:28 PM
To: Prysby, Mike (DEQ)
Cc: Cook, Pat (DEQ)
Subject: RE: Flint WTP CT

They seem to meet the extra 0.5 log removal with no problem (see attached) at 0.25 intermediate CL, 1.0 PT CL and 9 pH.

Also they will not be producing 36 MGD during the interim period so the flow rate can be significantly reduced.

Stephen Busch, P.E.
Lansing and Jackson District Supervisor
Office of Drinking Water and Municipal Assistance
MDEQ
517-643-2314

From: Prysby, Mike (DEQ)
Sent: Wednesday, August 28, 2013 11:30 AM
To: Cook, Pat (DEQ); Busch, Stephen (DEQ)
Subject: Flint WTP CT

Attached is the Flint WTP CT calculation for several different operating scenarios with worst case meaning cold water – 0.5 deg C.

1. 12 MGD (0.5 C, pH 7.5, final CL 1.0 ppm)
2. 18 MGD (0.5 C, pH 7.5, final CL2 1.5 ppm)
3. 18 MGD w. softening (0.5 C, pH, final CL2 2.5 ppm)

Based on the higher pH, a minimum free residual of 2.5 mg/l from the clearwell appears necessary to meet the required CT in the third scenario.

I also ran the ET calc for the 3 MGAL clearwell at 2 deg C using the regression method. I will place a hard copy of the calc on your desk since my computer not mapped to the scanner on the printer....

Michael Prysby, P.E.

District Engineer

Office of Drinking Water and Municipal Assistance

517 290-8817