
From: Prysby, Mike (DEQ)
Sent: Thursday, October 22, 2015 5:33 PM
To: Shekter Smith, Liane (DEQ)
Subject: Preliminary and Deliberative: Action Steps Update
Attachments: Monitoring Schedule 4th Qtr - 2015.pdf

Liane,

Below is a summary of the Action Steps worked on today by Steve Busch and myself.

Action Step 19: Corrosion Control Treatment plan:

A summary of our discussion with EPA regarding Flint's corrosion control plan was provided to Darren Lytle and Michael Schock of EPA. The summary included confirmation of the actual phosphate dosage from the Detroit Lake Huron WTP. Steve's summary to EPA is included in the thread below.

Action Step 20: Act 399 permit for phosphate feed system:

Proper dosages are now confirmed based on incoming P04 residual at Flint. A product cut-sheet to confirm NSF approval and max dose is to be provided shortly. The consultant will also confirm proper sizing of the feed pumps. Anticipate receiving this info tomorrow which will facilitate issuance of the Act 399 permit.

Action Step 22: Provide Flint with an updated monitoring schedule:

An updated monitoring schedule is completed and signed. The schedule will be mailed to the city tomorrow. A copy of the updated monitoring schedule is attached.

Action Step No. 24: Work with KWA to address bottleneck issues:

An electronic communication was sent to Genesee County (John O'Brien) informing him of our concern over improper soil erosion control measures at the pipeline jobsite and what corrective measures were being taken to avoid a potential halt of construction by the Lapeer County Road Comm. Genesee County has not responded thus far.

Michael Prysby, P.E.

District Engineer
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From: Busch, Stephen (DEQ)
Sent: Thursday, October 22, 2015 12:58 PM
To: Schock, Michael; Lytle, Darren
Cc: Kempic, Jeffrey; Prysby, Mike (DEQ); kaplan.robert@epa.gov; Krisztian, George (DEQ); Sygo, Jim (DEQ)
Subject: RE: Flint WTP PH2 SEG4 - Corrosion Control

This will summarize our phone conversation of 10/19 and provide clarification regarding the previous comments.

The City of Flint converted back to purchasing of Detroit Water and Sewerage Department water on Friday October 16, 2015. No indications of upset in the distribution system have been reported to date.

Detroit Water and Sewerage Department (DWSD) has confirmed the use of Innophos "Phosphoric Acid 75% Technical" product which is NSF Standard 60 certified with a maximum allowable feed rate of 1.3 mg/L as product.

The City of Flint will need to supply a similar phosphoric acid product, NSF Standard 60 approved with allowable maximum dosage.

DWSD supplied water is currently dosed at 0.39 mg/L as P (1.2 mg/L as PO₄) slightly above DWSD's OCCT requirement to dose a minimum of 0.9 mg/L as PO₄ and have a minimum plant tap residual of 0.8 mg/L as PO₄. DWSD plant tap residuals have been shown to consistently be at 0.39 mg/L as P (1.2 mg/L as PO₄). In addition water supply entering Flint has been tested and so far shown to contain approximately 0.39 mg/L as P (1.2 mg/L as PO₄) as well.

To achieve pipe passivation Flint will boost orthophosphate dosage to establish a minimum distribution residual of 1.0 mg/L as P (3.1 mg/L as PO₄). The chemical feed system will be sized to achieve a dose up to 2.0 mg/L as P (6.1 mg/L as PO₄) in case orthophosphate loss is observed.

Flint will continue Water Quality Parameter Monitoring in accordance with the LCR at the same 25 distribution locations used under the Flint River. In addition 10 of these locations also serve as total coliform monitoring sites, including disinfectant residual, and Flint will be told to, for the purpose of assessing water stability, conduct water quality parameter monitoring along with turbidity and iron sampling will be at these 10 locations on a weekly basis as suggested. This will also ensure that a minimum recommended pH levels are being maintained throughout the system.

EPA ORD staff will provide instructions to the City of Flint for creating test loops to help confirm effectiveness of the corrosion control treatment. This data will help in rebuilding public trust.

The County Health Department and MI Department of Health and Human Services will be conducting blood lead level testing of children in Flint. Children with elevated blood lead levels will be offered exposure assessments of their homes. These assessments should include the contribution of lead from service line and interior plumbing sources. Such diagnostic testing should help further substantiate the effectiveness of corrosion control treatment. Procedures recommended by EPA should be shared with the Michigan Department of Health and Human Services.

The University of Michigan in Ann Arbor had previously expressed interest in assisting the City of Flint. Both the Department of Civil and Environmental Engineering, and School of Public Health should be contacted to determine if that interest still exists with potential to assist in both test loop construction and monitoring, and exposure assessment monitoring in homes. Any water analysis should occur at a certified laboratory.