Technical Expert Working Group Conference Call

Friday June 4, 2010
10:00 – 11:00 a.m.

CALL SUMMARY

Attendees:

EPA and contractors: Jennie Saxe, George Rizzo, Bill Arguto, Jeff Kempic, Darren Lytle, David Wahman, Laura Dufresne, Ken Klewicki

The Washington Aqueduct: Tom Jacobus, Lloyd Stowe, Anne Spiesman, Shabir Choudhary, Vanessa Speight

DCWASA: Rich Giani, Chuck Sweeney, John Civardi, Steve Reiber,

DC Department of the Environment: Harrison Newton, William Slade, Monir Chowdhury

Centers for Disease Control and Prevention: Tiffany Turner

Arlington County: Dave Hundelt

Virginia Tech: Marc Edwards

Parents for Nontoxic Alternatives: Ralph Scott

Clean Water Action: Paul Schwartz

Agenda and Housekeeping Issues

There were no changes or additions to the agenda. The meeting agenda is included as Attachment A to this call summary.

Summary of Discussions by Topic Area

1. Pipe Loop Updates

Lloyd Stowe discussed the results from the Washington Aqueduct pipe loops. Mike Chicoine distributed graphs prior to the call showing the data for the pipe loop through May 2010. Lloyd indicated the Aqueduct continues to see a decrease in both dissolved and particulate lead with nothing unusual to report.

Rich Giani distributed total lead data from two of DCWASA's pipe loops to the TEWG prior to the conference call. Loop 1 is essentially a control loop and is always fed distributed water. It continued to show fairly stable lead levels with a slight decrease when the Aqueduct changed from chloramines from free chlorine. Lead levels increased

slightly (2 – 3 ppb) when the system switched from free chlorine back to chloramines in May.

Loop 3 most often uses distribution system water; however, DCWASA occasionally changes water chemistry for experimental purposes. Rich explained that his team converted back to chloramines one month early in Loop 3 to help predict distribution system behavior. Results were similar to Loop 1: DCWASA observed a 2 -3 ppb increase upon the switch to chloramines. The lead concentration stabilized after the initial increase and has remained steady at between 5 and 10 ppb.

2. LCR Update

Rich Giani reported on results from DCWASA's current round of LCR sampling as of May 31, 2010 (results were distributed to the group via e-mail prior to the call). The 90th percentile value is currently 7 ppb for 91 first draw samples. DCWASA also calculated with 90th percentile value for 87 second draw sample results, which was also 7 ppb.

Rich provided additional information on the four samples in the data set that exceeded 15 ppb. High iron levels in two of the samples indicated that galvanized piping could have contributed to the increased lead concentration. DCWASA believes that the third sample may be due to lead in a faucet or aerator. Increased lead concentrations in the fourth sample may be due to an extended stagnation period.

Ralph Scott asked if the faucet contributing to the high lead was a brass faucet. Rich did not believe that the faucet was brass but indicated that DCWASA recommended that the homeowner purchase a "no lead" faucet. Ralph also asked what percent of pipes in the DCWASA system had galvanized piping. Rich indicated that out of the pool of houses with lead service lines, approximately 5 percent had galvanized pipe. He did not know if that figure was representative of the entire system.

4. Post-partial Replacement Protocols[1]

Rich Giani reported on the current DCWASA practice for lead service line replacements, although he noted that this program is managed by the DCWASA engineering division. When DCWASA does major pipe replacements, their standard practice is to replace lead service lines (public portions) at the same time. They notify residents, recommend that the residents also replace their portion of the lead service line, and provide information on funding mechanisms. Regardless of the homeowner's decision, DCWASA provides them with filters for up to 6 months following the replacement. Approximately 4 ½ months after the replacement, DCWASA drops off sample bottles and instructions on how to collect first and second draw samples to the residents. If results are more than 15 ppb, DCWASA follows up and requests access to perform lead profile sampling. The resident is provided with results.

[1] This topic was discussed near the end of the call but addressed here to be consistent with the original agenda

Ralph Scott asked if a single sample was enough if the concern is particulate lead. Rich clarified that that at least first and second draw samples are collected and noted that DCWASA does a substantial amount of flushing immediately after replacement work is finished. DCWASA also recommends 15 minutes of flushing every day for 30 days following a replacement. He believes that they are very conservative about the duration of time that DCWASA suggests residents should use the filter.

Paul Schwartz asked if there was any data on how well people followed recommendations for behavior changes such as flushing their faucets before use. Rich indicated they had no information on follow through. Jennie Saxe encouraged people to use word of mouth to inform people of necessary actions to reduce lead exposure. Paul indicated that he at a later date, he would like to discuss social science tools that could potentially be used to assess behavioral change related to reducing lead exposure.

4. Observations from 2010 Free Chlorine Period

Jennie Saxe asked DCWASA, Falls Church and Arlington County to report on customer complaints and observed water quality from the free chlorine period. Dave Hundelt indicated that although they had increased complaints early in the free chlorine period when residuals were high, Arlington County had seen nothing unusual during the period of free chlorine usage. He indicated the length of the free chlorine period was helpful in allowing the County to complete its flushing of the distribution system. Dave mentioned that Arlington County had been deep cycling their tanks over the past few weeks to complete the process of breakthrough chlorination and conversion to chloramines. That process appears to be complete in all of their tanks.

DCWASA had received some increased complaints of discolored water, but were able to track 95 percent of those complaints to hydrant testing by the fire department. Rich Giani indicated that chloramines residuals were now holding steady and that HPCs throughout the system have been low.

No one from Falls Church was on the call to provide an update for that system.

5. Update on Washington Aqueduct Treatment Changes (Addition of Caustic Soda and Disinfectant Change from Chlorine Gas to Sodium Hypochlorite)

Tom Jacobus discussed the progress of the conversion to hypochlorite at the McMillan plant. Construction is complete and the system is currently being tested. The Aqueduct plans to begin using sodium hypochlorite instead of gaseous chlorine by July 1st. Lloyd Stowe indicated that the Aqueduct had not observed any water quality changes associated with the conversion.

6. Recap of April 20th Ft. Reno Elevated Chlorine Incident.

Chuck Sweeney provided a detailed explanation of the events that led to the elevated chlorine incident at DCWASA's Fort Reno reservoir on April 20th. The reservoir had been taken out of service for cleaning and maintenance earlier that month. The maintenance was completed and DCWASA added chlorine to disinfect the reservoir prior to putting it back in service on April 19th. Because of a miscommunication between DCWASA and Aqueduct operators, the reservoir level began to drop at approximately 4 a.m. on April 20th. Although the error was caught and corrected at approximately 7:30 a.m., the reservoir level dropped approximately 1 foot between 4 and 7:30. DCWASA estimated that this level drop resulted in 300,000 gallons of highly chlorinated water entering the distribution system's 4th high pressure zone.

Prior to field sampling, DCWASA estimated that chlorine concentrations in the reservoir could have been as high as 12 ppm. Crews were dispatched through the 4th high pressure zone to take samples and flush if necessary. EPA was notified at 7:45 a.m. The highest level recorded in the system was 4.9 ppm chlorine. The levels were lower than calculated because the water had been diluted by 1.2 million gallons released from the Washington Aqueduct reservoir at the same time. The DCWASA crews were able to flush the affected areas and testing confirmed that the situation was resolved by 2:30 p.m. on April 20th.

Jennie Saxe indicated that upon receiving the notification from DCWASA, EPA brought in a toxicologist who recommended that DCWASA issue a "do not use" advisory. DCWASA sent out messages via traditional news organizations as well as new media such as facebook and twitter.

Paul Schwartz noted that although he appreciated the information provided by DCWASA, he was concerned about communication to elderly residents and others without access to electronic media. Rich noted that DCWASA tried to address this by hand delivering notifications to 2,000 residents in the immediately affected area. Paul appreciated the magnitude of this step but indicated that customers outside of the affected area were still confused. Paul suggested considering homeland security networks, to which Rich Giani replied that that there is a list of designated people that do get texted through a homeland security service for events ranging from terrorist threats, to traffic incidents and natural disasters. Jennie Saxe noted that that perhaps ANC Commissioners and TEWG members themselves could help get the word out. Paul ended the discussion by stating that although he recognized the issue of limited resources and that perfect notification is not possible, the topic is an important one and he would like to have further discussions.

7. Aluminum Residuals in Hydrant Samples

Rich Giani reported on observed spikes in aluminum concentrations from DCWASA hydrant samples. They observed a spike in February 2010 which generated some cloudy water complaints. The aluminum levels decreased since February and have now returned

to normal. DCWASA flushed lines to reduce the levels, but had not been able to determine their cause.

8. Web Site Update

Jennie Saxe discussed changes to the EPA website on lead in DC drinking water (www.epa.gov/dclead). She mentioned that because of the large amount of narrative on the main page, she had moved many of the reports to another page with a link on the main page. Two new reports were also added to the reports page. A news item on the treatment changes at the Washington Aqueduct and some additional CDC links were also added.

Ralph Scott asked how EPA determines what goes on the main page versus linked pages. Jennie Saxe responded that the primary consideration was age of the material so that the main page accurately reflected the current situation.

Marc Edwards reported on a letter he had sent commenting on the CDC statements regarding their 2004 MMWR report. He provided a copy of this letter to the TEWG. Jennie Saxe noted that EPA could add a link to the letter if it is posted somewhere else.

9. Bills Regarding Lead in Drinking Water

Paul Schwartz discussed legislation being considered in Congress that deals with lead in drinking water. The Drinking Water SRF has passed the House committee and the Clean Water SRF has passed the House and is currently in the Senate. The current version of the Drinking Water SRF sets aside funds for lead line replacement, although it appears to be for partial lead line replacement. Paul said that he would like the group to consider writing a letter supporting only full lead line replacement. A bill currently in the House revises the definition of “lead-free” to the more stringent California standard.

The next TEWG call will be held on August 27th unless an earlier meeting is requested.

Attachment A: Call Agenda

- Pipe loop updates (WA, DCWASA)
- LCR update (DCWASA)
- Post-partial replacement protocols (DCWASA)
- Observations from 2010 free chlorine period (DCWASA, Arlington Co., Falls
- Church)
- Update on Washington Aqueduct hypochlorite & caustic treatment changes (WA)
- Recap of April 20th Ft. Reno elevated chlorine incident (DCWASA)
- Update on aluminum residuals in hydrant samples (DCWASA)
- Website updates (EPA)
- Bills regarding lead in DW (Paul S.)