DEPARTMENT OF THE ARMY
WASHINGTON AQUEDUCT
U.S. ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT
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WASHINGTON, D.C. 20016-2514

October 3, 2005

Office of the General Manager

Mr. Jon M. Capacasa, Director
Water Protection Division
US EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Mr. ~~Capacasa~~ Jon:

This letter follows up on your August 4, 2005 letter to Washington Aqueduct in which EPA Region III asked for a more detailed schedule of implementing treatment changes affecting pH control at both the Dalecarlia and McMillan water treatment plants. In an e-mail last week, Ms. Jennie Saxe noted that the October 1, 2005 deadline in your letter was a Saturday, and she asked us to have the response to you by Monday, October 3, 2005.

We are pleased to report good progress with corrosion control treatment and pH control in general. The improvements anticipated by the installation of a large pump that helps mix the lime slurry to better establish the pH of the water entering the clearwell (and decreasing finished water turbidity) at the Dalecarlia water treatment plant have been realized.

The operations branch managers have emphasized the need for steady pH in the finished water, and the operators at both treatment plants have responded very well. We have established a threshold notification (i.e., if this value exceeded, the operator immediately reports to a supervisor at any time of the day or night) of 0.2 pH units measured from the 7.7 target.

Our performance at both plants with regard to the Interim Water Quality Parameter of +/- 0.3 pH units measured from 7.7 is excellent. Moreover, the performance at the goal of +/- 0.1 pH unit measured from 7.7 is very good. This has been done with both attention to detail and vigilant monitoring of this process. However, Washington Aqueduct is committed to chemically assisting its pH control by the addition of caustic soda after the lime to be able to achieve an even more stable chemistry around 7.7 pH units.

As we know from reports to the Technical Expert Working Group, the samples taken from customer taps in compliance with the Lead and Copper Rule in the District of Columbia show that lead levels have decreased due to the combination of the properly dosed orthophosphate and the tighter pH controls.

The Technical Committee of the Washington Aqueduct Wholesale Customer Board has been meeting to discuss the fiscal year 2007 capital program. As you know, to meet our requirements under the Federal Facilities Compliance Agreement to comply with the NPDES permit for water treatment solids, the construction funding must be approved as part of the FY2007 capital budget. In addition to the major funding for that requirement, Washington Aqueduct has added an additional $5.4 million for caustic soda facilities at both treatment plants. The plan is still to integrate the caustic soda storage and pumping into a new sodium hypochlorite facility at Dalecarlia. No new buildings need to be constructed at McMillan, but the caustic soda storage and pumping has to be retrofitted into existing structures.

When we met in January 2005, at the Dalecarlia water treatment plant, Washington Aqueduct staff briefed your staff that we would attempt to accelerate a caustic soda system at the McMillan water treatment plant using operating funds otherwise available to us. As it has turned out, we did not have sufficient funds in fiscal year 2005 to begin that work. The cost of the mixing pump in the Dalecarlia water treatment plant's 30 million clearwell and the ongoing work with the pipe loops consumed the balance of discretionary operating funds.

The fiscal year 2006 operating budget was approved before the January 2005 meeting. As we now look at our operating costs in fiscal year 2006, it is problematic that we will be able to fund the McMillan caustic soda storage, feed and control system using the operating budget. The increase in the cost of energy that occurred after the approval of the budget and that January 2005 meeting is a major factor in removing discretion in the fiscal year 2006 budget.

We do expect the Wholesale Customer Board to approve the FY2007 capital budget during October 2005, and that budget does fund caustic soda trimming at both treatment plants.

Given where we are with improved pH control at the treatment plants and good results in the establishment of a chemical film in the service lines to protect against lead leaching, I believe an effective and prudent course is to continue to emphasize our operating procedures and install caustic soda trimming facilities at both treatment plants using funding in the fiscal year 2007 capital program.

I may be reached at 202-764-0031. We look forward to continue working with your staff as we perform our important Optimum Corrosion Control Treatment responsibilities.

Sincerely,

Thomas P. Jacobus
General Manager