



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Mail Code 401-04Q

Division of Water Supply & Geoscience  
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Commissioner

November 30, 2018

Kareem Adeem – Acting Director  
Newark Water Department  
920 Broad St, Rm B31-F  
Newark, NJ 07102

**RE: Newark Water Department - PWSID: NJ0714001  
Pequannock WTP - Draft Corrosion Control Review and Recommendation  
Letter No. LCR180001**

Dear Mr. Adeem:

The Bureau of Water System Engineering (Bureau) has reviewed Newark Water Department's (Newark) letter dated November 8, 2018 in response to the Bureau's letter dated October 26, 2018. Based on our review, the Bureau acknowledges and requires the following be addressed by Newark:

1. Newark will submit a Corrosion Control Treatment Recommendation (CCTR) report for the Wanaque gradient by January 15, 2019. Newark proposed to conduct sequential sampling and pipe scale analysis from one location within each of the three identified distribution zones likely blending, potential blending, and no blending. One sample location in the "likely blending" zone and one sample location in the "no blending zone" is adequate. However, the information supplied to the Bureau shows that there are two distinct areas of "potential blending" that are not contiguous. Thus, Newark should sample one location from each of the "potential blending" areas. Each sample location must be representative of each area to further determine if CCT is effective due to potential blending. If the results of the sampling and pipe scale analysis require additional optimization in the Wanaque gradient, a plan of action will need to be developed.
2. Based on the representations in the Response, the fluctuation in pH values associated with operational issues at the Pequannock Treatment plant are in the process of being addressed. If pH results do not satisfactorily stabilize in the optimum range for the selected orthophosphate inhibitor, Newark will need to implement appropriate treatment changes to ensure stabilization.
3. The actions and evaluation to be implemented within the consecutive systems must be included in the final CCT report and address the following:
  - how Newark will effectively transition from silicate to orthophosphate, including whether special water quality parameter sampling will be conducted by Newark in the consecutive system and what the optimum values would be.

- how Newark will assist the consecutive systems in implementing an effective flushing program for their distribution system to ensure that the silicate is flushed out.
  - whether special lead /copper sampling should be conducted by Newark in the consecutive system.
  - acknowledgement that the silicate feed at the Pequannock plant shall not be discontinued until Newark and the Pequannock Township Water Department have agreed, obtained approval from the Bureau and implemented an alternate corrosion control treatment for the Pequannock Township Water Department.
  - how Newark will implement additional requirements as outlined in the Department's Source Water Changes and Treatment Modifications Guidance available at <https://www.state.nj.us/dep/watersupply/pdf/change-source-treatment-guidance.pdf>.
  - acknowledgment that Newark will provide written notification to the consecutive systems thirty days before and again five days before implementing the orthophosphate treatment.
4. Filter performance analyses were evaluated under the Comprehensive Technical Assistance report in 2016; a report on implementation and the remaining issues from the CTA report is due to the Bureau by December 1, 2018 as agreed upon during our October 24, 2018 meeting.
  5. Newark must submit a plan, for Bureau review and approval, of the proposed comprehensive flushing program of its distribution system prior to implementing the flushing program.
  6. Newark's response indicates that "The use of orthophosphate will be tested in a proposed pipe loop study in advance of a full-scale implementation." In this instance, the Department will not require a pipe loop study prior to full-scale implementation. However, a final CCTR approval must be submitted prior to the issuance of a treatment approval to add orthophosphate into the distribution system of the Pequannock Gradient at the Valley Road Rechlorination Station. Therefore, to expedite the implementation of the CCT, the Bureau strongly recommends that the full temporary treatment approval /permit application for "adding orthophosphate into the distribution system of the Pequannock Gradient at the Valley Road Rechlorination Station" be submitted concurrent with the final CCTR report.

Finally, the Bureau reiterates the importance of and the requirement that Newark ensure simultaneous compliance with all other applicable rules including but not necessarily limited to the EPA's Stage 1 and Stage 2 Disinfectants and Disinfection Byproducts Rules and the Surface Water Treatment Rules.

When contacting the Department please reference the PWSID No. NJ0714001 and Letter No. LCR180001.

Sincerely,



Joseph Mattle, Supervisor  
Bureau of Water System Engineering

cc: Don Hirsch, Northern Bureau of Water Compliance and Enforcement  
Rich Paull, Land Use and Water Compliance and Enforcement