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May 15, 2024

Mr. Vojin Janjic
Manager, Permit Section
Division of Water Resources
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243-1102

Subject: Bisulfite Addition at the Knob Creek WWTP

Dear Mr. Janjic:

The City of Johnson City Knob Creek WWTP currently utilizes Sodium Hypochlorite for effluent disinfection. A quench chemical, such as Sodium Bisulfite, is not currently used due to the length of the WWTP's outfall being sufficient for meeting the NPDES monthly average effluent Chlorine residual of 1.35 mg/L. However, beginning October 1, 2024, the monthly average effluent Chlorine residual is scheduled to decrease to 0.31 mg/L. In order to reliably quench the Chlorine residual in the WWTP effluent, CDM Smith has recommended the addition of a permanent Sodium Bisulfite feed system.

CDM Smith has completed a preliminary engineering report that outlines several capital investment costs for the Knob Creek WWTP. The report includes recommendations to implement a new permanent bisulfite feed system at the Knob Creek WWTP. While existing calculations indicate that all residual chlorine will be dissipated prior to plant effluent reaching the river, the project will ensure compliance with the NDPEs TRC limit by adding a compliance point within the plant site. Due to the nature of the project, the permanent feed system will not be in place prior to the TDEC deadline. A temporary bisulfite feed system will be installed and in operation prior to the deadline.

The City will be installing the temporary system with CDM Smith's design assistance. A standalone PER detailing the design of the permanent and temporary system is forthcoming.

Should you have any questions or need any additional information, please do not hesitate to contact me.

Sincerely,

Daniel Unger, PE, PMP
CDM Smith Inc.

