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October 1, 2015

Robert Stevenson, General Manager City of Hannibal 3 Industrial Loop Drive P.O. Box 1589 Hannibal, MO 63401

RE: Administrative Order on Consent PDWB-2012-031 Hannibal MO2010344

Dear Mr. Stevenson:

This letter is in response to the letter sent by the city of Hannibal on September 23, 2015, which proposed that the city utilize an alternate option to meet the October 1, 2015, deadline for compliance with Long Term 2 Enhanced Surface Water Treatment Rule (LT2) until the UV system can be constructed and placed into service. The city is proposing to use the Combined Filter Effluent (CFE) and Individual Filter Effluent (IFE) Performance option, as defined in the EPA's LT2 Microbial Toolbox, as a temporary solution to comply with LT2 until the UV system is operational.

The two-year extension granted on May 2, 2013 was to allow the city time for capital improvements consisting of the installation of a UV reactor to enhance treatment requirements to provide one additional log removal of Cryptosporidium (Crypto), for a total 4-log crypto removal inactivation as required by LT2. Utilizing CFE and IFE performance is an operation and monitoring solution in the Microbial Toolbox that does not meet the definition of a capital improvement and therefore the department would not have granted an extension and the compliance date would have remained October 1, 2013. Therefore, in order to have utilized this solution, the city should have selected this Microbial Toolbox option prior to October 1, 2013 and have been submitting monthly CFE and IFE performance monitoring data to the Missouri Department of Natural Resources for the past 24 months.

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The use of CFE and IFE Performance monitoring is no longer an option for the city. We would like to point out that several major surface water systems in Missouri conducted studies, early on, to determine if CFE and IFE performance monitoring would be a workable solution for them, and none of these systems selected this option due to the inability to meet the stringent requirements in LT2.

Your letter also proposes that the city install a temporary ammonia feed system prior to the point where the treated water enters the clearwell to try and lower disinfection byproduct formation. Adding an ammonia feed is a change in the treatment process. Please submit a request to conduct a pilot study that includes the feed rates, injection point locations and time needed to conduct the study.

If you have questions you may contact Ms. Sarah Hearne of my staff by phone at (573) 751-4414 or contact me at (573) 751-6982 or via mail at Missouri Department of Natural Resources, Water Protection Program, Public Drinking Water Branch, P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM

Lance Dorsey, Chief

Compliance and Enforcement

LD/sha

c: Ms. Irene Crawford, Northeast Regional Office Ms. Darleen Groner, Financial Assistance Center