



**MISSOURI**  
DEPARTMENT OF  
NATURAL RESOURCES

Michael L. Parson  
Governor

Dru Buntin  
Director

January 19, 2023

**OFFICIAL COPY VIA EMAIL**

Erin Keys, Engineering and Operations Manager  
Columbia WWTP  
P.O. Box 6015  
Columbia, 65205

RE: Columbia, Missouri Local Limit Evaluation Acceptance– Columbia Missouri Wastewater Treatment Facility, MO-0097837

Dear Erin Keys:

Thank you for the document, *Detailed Technical Local Limits Reevaluation Report for the Columbia Wastewater Treatment Plant*, received on July 14, 2022, pursuant to the requirements in the Missouri State Operating Permit Number No. MO-0097837 for your facility. Geosyntec Consultants created the document on behalf of the city of Columbia. The State of Missouri has a U.S. Environmental Protection Agency (EPA) approved state pretreatment program and is the approval authority for your submittal.

Pursuant to 40 CFR 122.44(j)(2)(ii), all Publicly Owned Treatment Works with approved pretreatment programs are to provide a written technical evaluation of the need to revise local limits under 40 CFR 403.5(c)(1), following permit issuance or reissuance. This written technical evaluation shall be submitted to the Department within 180 days after the effective date of the renewed permit. The city submitted Columbia Wastewater Treatment Plant (WWTP) Industrial Pretreatment Local Limit Review Report on October 28, 2020. This report was reviewed by the Department and required further evaluation with EPA guidance document.

The city completed a detailed technical reevaluation of local limits in 2012. The city conducted extensive domestic background sampling at two pump stations for the 2011 local limits report. Due to limited changes in the domestic catchment areas of both pump stations, the city conducted a resampling event in 2021 at the Cascades pump station during dry weather to determine if pollutant concentrations had changed meaningfully since the 2011 local limits derivation. Results from the 24-hr composite sampling event conducted on July 27, 2021, indicated domestic contributions were equal to or less than the samples collected for the 2011 local limits report. As a result, the larger 2011 domestic background dataset was used for the updated local limits calculations. The city compared the 2011 and 2021 actual loading to the maximum allowable headworks loading (MAHL). The current calculated loadings as a percentage of MAHLs for all pollutants of concern (POC) were generally less than 30 percent, with the with exception of copper and molybdenum which were 58 and 55 percent respectfully. Due to a decrease in WWTP actual flow rate, reduction in sludge production, removal of WWTP final effluent limits (silver, cadmium, cyanide, chromium, copper, lead and mercury), and other factors, the city recommends local limits reduction for nine pollutants of concern (silver, arsenic, chromium, copper, nickel, lead, zinc, molybdenum and selenium) and a limit increase for three POC's (cadmium, cyanide and mercury).



The modifications to the city's pretreatment program was determined to be a substantial modification as defined in 40 CFR 403.18(b). As a result, the city's pretreatment modification from the "Detailed Technical Local Limits Revaluation Report for the Columbia Wastewater Treatment Plant" was placed on Public notice is hereby accepted on the condition that the city issued a public notice for the request for approval under 40 CFR 403(b)(1). No substantial comments were received during the public notice period, the city may proceed and make the pretreatment modifications effective.

After review of the local limit review, I have the following recommendations:

- Consider sample methods conforming to EPA 40 CFR Part 136 Methods that improve detection of metal samples; for instance, consider the low-level trace metal methods.
  - Method 1669 [Clean Sampling] and Method 1631 [Trace Metal Analysis]
  - Can be used for Mercury
- Oil and grease. Please sample for nonpolar and polar oil and grease using approved EPA methods. The oil and grease included in the local limits analysis for all WWTPs is not the nonpolar oil and grease coming from industry. Future sampling analysis planning should consider this fact, as under the National Pollutant Discharge Elimination System permit the sampling is EPA method 1664A-HEM, which is for polar and nonpolar, total oil and grease. The test method for nonpolar oil and grease coming from industry is EPA Method 1664 SGT-HEM. Consider EPA Method 1664B:  
[https://www.epa.gov/sites/production/files/2015-08/documents/method\\_1664b\\_2010.pdf](https://www.epa.gov/sites/production/files/2015-08/documents/method_1664b_2010.pdf)
- Conduct an annual internal review of the headworks loading and compare those values with the MAHL.

I accept this detailed technical evaluation of local limits as required under 40 CFR 403.5(c)(1). If you have questions concerning this package or the National Pretreatment Program, please contact me at 573-522-3454, by email at [pretreatment@dnr.mo.gov](mailto:pretreatment@dnr.mo.gov), or by mail at Department of Natural Resources, Water Protection Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. Thank you.

Sincerely,



Brad Allen  
State of Missouri Pretreatment Coordinator

BA:cmd

c: David Pratt, U.S. Environmental Protection Agency, Region 7  
John Heisterberg, Northeast Regional Office  
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