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July 21, 2010

Fred Washburn
Superintendent, City of Hoxie
PO Box 898
Hoxie, Kansas 67740

Dear Fred,

As discussed during our visit on June 30, the city should begin running both conventional and inhibited BODs on the plant effluent for the next 4-6 months. The city should continue to report only the conventional BOD results in the Discharge Monitoring Reports you submit to KDHE monthly. The inhibited BOD test results should be kept on file so we can review later to see if the city might benefit from reporting inhibited BOD results in the future. KDHE will not allow the city to run both and then decide later which one to report. So, for now continue with the conventional results until we have enough data to make a decision on which method to report. Your NPDES permit allows you to run either, just that the city cannot switch all the time. If you eventually end up reporting inhibited BOD results, your BOD limit will be reduced to 30 mg/L (as opposed to the present limit of 35 mg/L).

BOD typically includes both carbon and nitrogenous compounds which contribute to oxygen demand. However when an inhibited BOD is run, a special chemical is added to kill the nitrogenous bacteria so that only oxidation of carbon compounds occur. In some plants where the breakdown of ammonia is incomplete or where high levels of ammonia are present, false conventional BOD readings may occur. In such cases it is often recommended that inhibited BOD should be used in place of the conventional 5-day BOD test. Hopefully making the switch to inhibited BOD will benefit the city.

I believe Alan told me that your recirculation rate on the trickling filter is now up to 29% based on meter readings (and not the position of the valves). He also thought this was about the maximum recirculation rate that could be obtained. At this point we just continue to monitor the plant effluent to see if the increase improves effluent quality.

Funding for the above assistance was provided through a contractual arrangement between the Kansas Department of Health and Environment and the Kansas Rural Water Association (KRWA). Please visit the KRWA website at www.krwa.net for news and information concerning water and wastewater utilities, training opportunities, and other KRWA programs. If I can be of further assistance, please feel free to contact me 913-850-8822 or jeff@krwa.net.

Sincerely,

Jeff Lamfers
Consultant

c: Mayor Lori Horesky
Alan Ackerman, Operator
Norb Windholz, KDHE, Hays