KANSAS RURAL WATER association
Quality water, quality life

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June 8, 2009

Marty Fredrickson
City of Marion
208 East Santa Fe Street
Marion, Kansas 66861-1636

Re: Water Treatment Plant Operations

Dear Marty;

I wish to thank David, Ben, and you for the opportunity to visit and discuss the plant operations on May 22 and June 1. The main topic of discussion was the discoloration of water in a small area in the south part of town.

The discoloration of water in the small area of town is accompanied by very low combined chlorine residuals and a pH drop from the plant to the affected area. The city has raised the pH leaving the plant but the discoloration in this area still persists. Continual flushing seems to help somewhat.

The city has gone to a free chlorine "burnout". It is hoped that the free chlorine will eliminate the water discoloration that could be caused by possible bacterial growths in the lines in the affected area. You should continue to monitor the area for discoloration during and after the "burnout".

It is important to be sure that a free chlorine residual is obtained throughout the distribution lines and in completely in the elevated water storage tanks before going back to combined chlorine. It is important to overflow the storage tanks until a free chlorine residual is measured. A "burnout" usually takes 2-4 weeks depending on the amount and frequency of flushing of lines and overflowing of storage tanks.

The distribution systems must be put back completely to combined chlorine before compliance sampling for disinfection byproducts. Free chlorine will cause the trihalomethanes and haloacetic acids to be much higher that the required maximum contaminant levels (MCLs). You may have to coordinate the sampling dates with KDHE to ensure that samples are taken at time when free chlorine residuals are not present in the distribution system.

Funding for the above assistance was provided through a contractual arrangement between the Kansas Dept. of Health & Environment (State Revolving Loan Program set-aside) and KRWA. Also, visit the KRWA website www.krwa.net for news and information concerning water and wastewater utilities, training opportunities and other KRWA programs.

If you, David, or Ben wish to discuss any matters pertaining to the water supply system, please contact me.

Again, thanks for opportunity to meet with you all.

Sincerely,

S. Patrick McCool, P.E.
KRWA Consultant

C: David Mayfield
Marsha Carpenter, KDHE