



MISSISSIPPI STATE DEPARTMENT OF HEALTH

December 29, 2017

Mr. Terry Williamson, Legal Counsel
Department of Public Works
City of Jackson
200 S. President Street
Jackson, MS 39201

RE: Optimal Corrosion Control Treatment Report, OB Curtis and JH Fewell Water Treatment Plants, City of Jackson, PWS ID 0250008

Dear Mr. Williamson:

We have completed our final review of the above referenced report and concur with the report's recommendations outlined therein. The report's recommendations included the establishment of both a minimum target pH of 8.6 for the distribution system and a minimum target pH of 9.3-9.4 leaving the treatment facilities. The report also outlined the City's intent of treatment modifications at both the OB Curtis and JH Fewell treatment facilities which involve changing the pH adjustment chemical from lime to soda ash.

At this time, it is our understanding that the primary system for pH adjustment at the OB Curtis Plant has been completed and is in service. The remaining treatment modifications including the installation of the backup pH adjustment system has a set completion deadline of May 31, 2019. Construction of similar facilities at JH Fewell is in progress and also has a scheduled deadline of May 31, 2019. I would stress that completing the modifications at both treatment facilities ahead of the deadline would be very beneficial to the City and its customers.

Moving Forward:

As the modifications are not yet fully complete, continued monthly monitoring of water quality parameters (WQP) will still be necessary. However, with the corrosion control study complete, new water quality parameter goals or optimized water quality parameters (OWQP) will be assigned beginning January 2018. Based on the Optimal Corrosion Control Treatment Report, the following OWQPs will be the standard by which optimize treatment will be measured:

pH:

Study results noted that the recommended range for water leaving the treatment facilities should be a minimum of 9.1 and a maximum of 9.5. Furthermore, the study noted that because of water age and corrosivity, pH should not fall below 8.6 for the added protection of distribution plumbing. For the purpose of OWQP, finished water pH leaving the treatment facilities should not fall below **9.0**. Finished water pH in the distribution should not fall below **8.6**.

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Alkalinity:

Study results indicated that at expected pH range and raw water alkalinity, levels would vary between 30 and 45 mg/L. For the purpose of OWQPs, Alkalinity levels leaving the treatment facilities should be **greater than or equal to 25 mg/L**.


DIC:

With the added benefit of recent guidance provided by the Environmental Protection Agency, Dissolved Inorganic Carbon (DIC) was noted a key parameter to monitor in determining the success of corrosion control treatment. Study results noted that at the recommended pH, DIC values between 7 and 10 mg/L were realized based on the raw water DIC level. For the purpose of OWQPs, a DIC range of **5 to 10 mg/L** will be required leaving the treatment facilities.

Using these aforementioned parameters, the City will be monitoring the effectiveness of the installed treatment even as some of the elements of the new treatment process have to be installed at all locations. The City must identify a minimum of 25 locations where the WQPs can be monitored monthly. It is our understanding that many customers of the current locations are now requesting to "opt out" of the monitoring process. If the City wishes to submit new locations for WQP monitoring, the Bureau will be willing to review them for consistency with the City's lead and copper site plan. Please submit the proposed list of locations to this office by January 31, 2018. Note that when selecting the new locations, the City should choose sites based on their tier classification (Tier 1) and the presence or suspected presence of lead service lines (LSL). This monitoring of WQP will continue monthly for the next two years.

If you have any questions, please contact me at 601-576-7518.

Sincerely,



William F. Moody, P.E., Director
Bureau of Public Water Supply

pc: Water Works Operator
Jim Craig, Director, Office of Health Protection
Leslie Royals, P.E., Director, Office of Environmental Health
Karen Walters, Deputy Director, Bureau of Public Water Supply
Amy McLeod, Regional Engineer, Bureau of Public Water Supply