PUBLIC HEALTH DIVISION
Drinking Water Services
Kate Brown, Governor

Oregon Health Authority

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28 September 2018

Mike Walker
City of Sandy
39250 Pioneer Boulevard
Sandy, OR 97055

Re: **Disinfection Byproduct Control – Soda Ash Treatment – PR# 104-2018**
City of Sandy – WS ID# 00789
Conditional Approval

Dear Mr. Walker:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) via your consultant, Curran-McLeod, of plans for the City of Sandy's treatment of disinfection byproducts (DBPs). Our office has received a set of engineer-stamped plans of improvements to the Hudson Road Pump Station where water is purchased from wholesaler, Portland Water Bureau, and a review fee of $825. The project includes a 300-gallon chemical mixing tank with an agitator, a chemical injection pump, pH sensor and controller, and appropriate appurtenances for dosing of soda ash.

Using soda ash to increase alkalinity and thereby the buffering capacity of the water, as well as reduce the acidity is an uncommon but acceptable method of DBP treatment and is approved by DWS. A target minimum pH was not proposed, but is presumed to be 7.5 to match the pH leaving the Alder Creek WTP on the other side of town. DWS recommends water systems treat water from different sources in order to match water quality parameters, alkalinity and pH.

The plans are approved with the following conditions:

- The soda ash and all items in contact with the water meets NSF Standards 60 and 61, respectively

- Assurance the chemical feed system doses proportional to flow

Until we receive verification that the project was completed with the conditions listed above and we have granted Final Approval for the project, the DBP treatment and related improvements are not approved for use. Documentation demonstrating how the above conditions were met should reference Plan Review #104-2018 and can be e-mailed or mailed to the addresses above.

After installation of chemical DBP reduction treatment, Sandy should begin regularly monitoring alkalinity and pH at the point-of-entry immediately after treatment and keep reports on hand for triennial water system surveys. Alkalinity and pH should also be regularly monitored at representative distribution sites. A calibratable, temperature-compensating, electrode type meter must be used for these pH measurements.

This new treatment is not anticipated to affect lead and copper sampling results. However, while Sandy is eligible for a reduction in lead and copper sampling, this change in treatment directly affects the water quality parameters that impact corrosivity of the water and the chemistry on distribution pipe walls. Therefore, Sandy must take one more annual round of lead and copper sampling next summer in 2019. Upon receiving those favorable results, Sandy will then become eligible for a sampling reduction to triennial lead and copper sampling.

Please contact me if you have any questions. I can be reached at the contact info above.

Sincerely,

Pete Farrelly, PE
Regional Engineer
Drinking Water Services

cc: Ralph Funk
Curran-McLeod Engineering Services
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