



PUBLIC HEALTH DIVISION
Center for Health Protection, Drinking Water Services

Tina Kotek, Governor

Oregon
Health
Authority

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June 15, 2023

Mike Bollweg
City of Gold Hill
PO Box 308
Gold Hill, OR 97525

**Re: New Disinfection (PR#68-2023)
City of Gold Hill (PWS ID#00333)
Conditional Approval**

Dear Mike Bollweg:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the new disinfection for the City of Gold Hill's public water system. On May 22nd, 2023, DWS received a project description, calculations, drawings, and a plan review fee of \$825.

The project includes upgrading the City's water treatment plant chlorine disinfection system and perform a new tracer study. The City will remove the existing Accu-Tab calcium hypochlorite erosion chlorinator and install an injection pump system and utilize 12.5 % sodium hypochlorite as the disinfectant at the treatment plant. The work will take place at the water treatment plant located in Gold Hill, Oregon.

The project shall adhere to all applicable DWS Oregon Administrative Rules (OAR). The submitted plan review material has been reviewed and the following items were noted as specific conditions of final approval:

Facilities for disinfection and disinfectant residual maintenance-

- Per OAR 333-061-0050(5)(e), provisions shall be made to alert the water supplier before the chlorine supply is exhausted. Provide information on how the City plans ensure new sodium hypochlorite supply does not get exhausted.
- Per OAR 333-061-0050(5)(i), the disinfectant must be applied in proportion to water flow. Provide information on the control system that turns the chemical feed

pumps on and off and allows them to pump disinfectant proportional to the water flow to the clearwell.

- Per OAR 333-061-0050(5)(d)(B), the City shall ensure there is sufficient contact time provided to achieve disinfection under all flow conditions between the point of disinfectant application and the point of first water use. Per the submitted theoretical CT calculations, it appears the City will need both Clearwell volume and the 8-inch distribution line volume for the contact time chamber. An “entry point” sample tap will need to be installed at the end of the 8-inch distribution line leading up to the reservoirs to sample the daily chlorine residual to the distribution system. Install the sample tap prior to the tee connection between reservoir number two and three.

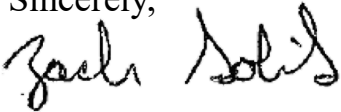
Tracer study-

- Per OAR 333-061-0050(6)(a)(R), reservoirs and clearwells that are to be used for disinfection contact time to treat surface water shall use a tracer study to determine the actual contact time. The Authority must approve procedures and protocols for the tracer study prior to the initiation of the study. The Authority recommends the US EPA Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources for a tracer study procedure and protocol. Please provide a better description of how the tracer study will be performed. Provide answers to the enclosed “Preparing a Tracer Study Plan” questionnaire to OHA prior to starting the tracer study.
- Per OAR 333-061-0050(6)(a)(S), reservoirs and clearwells that are to be used for disinfection contact time to treat surface water shall have a means to adequately determine the flow rate on the effluent line. Ensure the flow meter on the effluent side of clearwell operates and provides peak hour flow in Gallons-Per-Minute (GPM). Ensure this meter and its location (after clearwell and before 8-inch distribution line) can accurately represent the flow during the tracer study and after the tracer study for daily peak hour flow.

Until we receive verification that the conditions have been met and final approval has been issued, the new disinfection is not approved for use. Documentation demonstrating how the above conditions are met should reference Plan Review #68-2023 and can be emailed to me at zachariah.cunningham-golik@oha.oregon.gov.

If you have any questions, please feel free call me at 541-231-9077.

Sincerely,

A handwritten signature in black ink, appearing to read "Zach Golik".

Zach Golik, PE
Regional Engineer
Drinking Water Services

CC: Julie Wray, DWS Portland

ENCL: "Preparing a Tracer Study Plan" document