



February 1, 2024

Michael Klobes (m.klobes@always-pure.com)
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Sent by email only.

Re: Residual Maintenance Chlorination (PR#10-2024)
Clackamas River RV Park – PWS #94761
Conditional Approval

Dear Michael:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the Residual Maintenance Chlorination for Clackamas River RV Park. On January 30, 2024, our office received plans and a plan review fee of \$248.

The project includes the installation of a meter driven proportional feed chlorine injection system connecting to two 15.0 gpm flow control units and two 2,500 gallon holding tanks in parallel that join back together before feeding into the distribution system. Hasa Multi-Chlor 12.5% sodium hypochlorite, stored in a 50 gallon polyethylene tank will be used to supply the disinfectant.

The plans are approved with the following conditions:

- Please submit information that demonstrates how the water system meets OAR 333-061-0050(5)(e): "Provisions shall be made to alert the water supplier before the chlorine supply is exhausted." This requirement can be satisfied by either installing a low-level alarm or by creating a written procedure to check the tank daily.
- Chlorinator piping must be designed to prevent the contamination of the potable water system by backflow of untreated water or water having excessive concentrations of chlorine (i.e. air gap, backflow prevention...).
- Testing equipment must be provided to determine the chlorine residual. The equipment must be a DPD-test kit or other EPA approved method of testing.

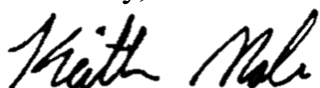
In addition, I have the following comments:

- Addition of residual maintenance to a water system requires the system to monitor the chlorine residual in the distribution system at least twice per week. The residual should be recorded, with the records made available to the County Health Department during their inspections.
- Note that increased lead and copper sampling will be required once final approval is issued. The water system will be required to conduct two 6-month rounds at 5 sample sites, with residual maintenance in use. Joel Ferguson at Clackamas County Public Health can assist you in locating the 5 sites.
- With the addition of chlorine, sampling for disinfection byproducts (DBPs) will be required. Joel can help you with setting up the initial sampling requirements once final approval is issued.

Until we receive verification that the conditions have been met and final approval has been issued, the residual maintenance chlorination is not approved for use. Upon completion of the project, the engineer must verify in writing that construction was completed according to the submitted plans. If substantial changes are made, a set of as-built drawings must be submitted. Documentation demonstrating how the above conditions were met should reference Plan Review #10-2024 and can be emailed to me at keith.male@oha.oregon.gov.

If you have any questions, please feel free to call me at 503-939-1322 or email me at keith.male@oha.oregon.gov.

Sincerely,



Keith Male, PE
Regional Engineer
Drinking Water Services

cc: Julie Wray, DWS
Joel Ferguson, REHS, Clackamas County Health Department name