

December 20, 2024

Nancy Horning
Assistant Manager
Horning's Hideout
Via email: events@horningshideout.com

**Re: New Storage and Pressure Tanks (PR#170-2024)
Horning's Hideout (PWS ID#94700)
Conditional Approval**

Dear Nancy:

Thank you for your submittal to the Oregon Health Authority's Drinking Water Services (DWS) of plan review information for the storage and pressure tanks that were installed at Horning's Hideout. On November 22, 2024, our office received details and photos of the tanks that were installed. A plan review fee of \$248 was received on December 17, 2024.

The project includes two Norwesco polyethylene storage tanks (1,700 gallons each), two Well-x-trol pressure tanks (81 gallons each) and a booster pump. These items were already installed, and the County's recent water system survey pointed out the need for these items to go through the plan review process.

Under OAR 333-061-0060(1)(b), submittals must be prepared by a Professional Engineer registered in Oregon, unless exempted by DWS. An exemption was approved for this submittal. Note that by utilizing this exemption, the water system takes full responsibility for the design of the project.

The plans are approved with the following conditions:

- All items in contact with potable water must meet NSF Standard 61 or equivalent. Please submit information that demonstrates that the booster pump installed meets this standard. An NSF symbol may be found on the pump itself, or you might find the information on the manufacturer's cut sheet.
- A fence or other vandal deterrence must be provided for the two buried Norwesco tanks. If the lids can be locked, that may be the best way of securing them, and would also meet the construction standard listed below.
- Please provide information on the inlet and outlet piping for the Norwesco tanks. Is

there a single pipe to each tank, or is there a separate inlet and outlet? Do the tanks link together so that they both fill and empty at the same time? Is there a drain to daylight and an overflow pipe for each tank?

- The following construction standards apply to the two buried Norwesco tanks, and I could not determine compliance with these standards from the photos.
 - Screened vents must be provided above the highest water level to permit circulation of air above the water in finished water storage facilities. Typically, Norwesco tanks do not have screened vents in the top hatch and this would need to be retrofitted in such a way as to not be flush with the ground surface.
 - The roof cover must have a lockable watertight cover that overlaps the curbing.
 - A slit stop must be provided at the outlet piping. Typically, this standard is met by having the outlet pipe slightly off the bottom of the tank.
- All pressure tanks must be provided with a drain, a pressure gauge, an air blow-off valve, and a means for adding air. It is likely that these pressure tanks meet this requirement but check with the business that you purchased the tanks from and ask them to provide details.
- Bypass piping around the pressure tanks must be provided to permit operation of the system while a tank is being maintained or repaired (schematic or photo showing how this requirement is met would be acceptable).

Until we receive verification that the conditions have been met and final approval has been issued, the facility is not approved for use. Documentation demonstrating how the above conditions were met should reference Plan Review #170-2024 and can be emailed to me at Carrie.L.Gentry@oha.oregon.gov.

If you have any questions, please feel free to call me at (971) 201-9794.

Sincerely,



Carrie Gentry, PE
Regional Engineer
OHA-Drinking Water Services
Carrie.L.Gentry@oha.oregon.gov

cc: Nicole Alfafara, REHS, OHA/DWS
Larry Fenster, REHS, Washington County Environmental Health