

July 30, 2025

Joe Hitz, PE  
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158 E Main Street  
John Day, Oregon 97845

**Re: New Filtration Plant, Disinfection, Reservoir, and Transmission Line, PR #131-2024  
Canyon City Water Dept., PWS ID#4100165  
Conditional Approval**

Dear Joe:

Thank you for your submittal of plan review information to the Oregon Health Authority's Drinking Water Services (DWS). Plan drawings, a Land Use Compatibility Statement, and the review fee of \$4125 were received on September 23, 2024. Additional requested information was received on July 15, 2025. The project consists of constructing a 150-gpm cartridge filtration plant with Yardney multi-media pre-filters, three Harmsco HC/170-0.35 and three HC/170-LT2 filters in parallel using MUNI-170-MP housings, a De Nora Miox 4 lb./day mixed oxidant generation system, in-line turbidimeter and chlorine analyzers, a 600,000-gallon bolted steel storage reservoir, a new transmission line from the springs to the filtration plant, installing new AMR meters, and related valves, piping and appurtenances.

Approval is granted for the project based on meeting the following conditions:

Filtration system:

- Provisions for restricting the flow through each LT2 filter train to less than 100 gpm must be in place.
- Pressure gages must be installed both upstream and downstream of every cartridge filter. Single pressure gages may be installed on the inlet and outlet manifolds for the multi-media prefilters.

- Bypass piping around the filters is not allowed unless there is a physical separation in the piping, such as a removable spool.
- Sample taps must be provided before and after the filters.

Miox Disinfection system:

- Sample taps must be provided before and after the point of disinfectant application.

Reservoir:

- The outlet piping in the floor of the reservoir must be configured in a manner that will prevent the flow of sediment into the distribution system. A removable silt stop that extends the outlet piping above the reservoir floor will satisfy this requirement.

Transmission Line:

- The pipe must be manufactured in conformance with the latest standards of the American Water Works Association, NSF, or other equivalent standard acceptable to the Authority.
- Tracer wire must be installed on the new pipe. The distance between the tracer wire lead access points must not be more than 1000 feet per [OAR 333-061-0050\(8\)\(k\)](#).
- The new pipe must be disinfected, flushed, and coliform samples collected before being placing into service.

I also have the following comments:

- The total flow out of the reservoir must be metered. It is my understanding that two flow meters will be installed on the reservoir outlet piping downstream of where it tees to accomplish this.
- I note that regular inspections will be conducted in lieu of a low level alarm in the Miox solution tank.
- I note that the drawing on Sheet 3.8 shows two 30" manways in the reservoir shell, but the note on Sheet 3.9 and the specifications say there is to be one shell manway.
- I note that the drawing on Sheet 3.8 shows one 30" access hatch on the reservoir roof, but the note on Sheet 3.9 says there are to be two roof hatches. In addition, page 29 of the specifications calls for one 24" roof hatch.
- Note that the daily turbidity measurements must be taken immediately downstream of the final LT2 filters before the water enters the reservoir. The daily chlorine residual, pH, and temperature measurements for the CT calculations must be taken downstream of the reservoir after the disinfection process has taken place.
- A tracer study must be conducted after the installation is complete to determine the available disinfectant contact time to be used in the daily CT calculations. A plan for the study must be submitted for review before it is conducted.

- The *Giardia lamblia* disinfection/inactivation requirement will be reduced from the current 1-log to 0.5-log after the filter installation is complete.
- I note that the water system requires an operator certified at both the Distribution-1 and Treatment-1 levels.

Until it is verified that the project meets the construction standards in OAR 333-061-0050 and Final Approval is granted for the project, the new facilities are not approved for use. If you have any questions or would like this in an alternate format, please feel free to call me at (541) 966-0900 or email at [william.h.goss@oha.oregon.gov](mailto:william.h.goss@oha.oregon.gov) .

Sincerely,



William Goss, PE  
Regional Engineer

c: Julie Wray, OHA-DWS

Tim Madden, Canyon City (pdf copy only)

Tami Kowing, Canyon City (pdf copy only)

Shanna Bailey, Business Oregon (pdf copy only)

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