



PUBLIC HEALTH DIVISION
Drinking Water Services
Tina Kotek, Governor

Oregon
Health
Authority

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March 18, 2024

John McAllister, PE
Port of Morrow
PO Box 200
Boardman, Oregon 97818

**Re: New Well #6 (Silo Location), Plan Review #37-2022, Port of Morrow, PWS ID #4101328
Conditional Approval**

Dear John:

Thank you for your submittal of plan review information to the Oregon Health Authority's Drinking Water Services (DWS). The plan review fee of \$825 and a Land Use Compatibility Statement were received on March 15, 2022. On June 23, 2022, our office received a revised site plan and proposed well drilling specifications. A copy of the driller's well log was obtained on February 1, 2024. Plans for the well head piping, appurtenances, and chlorination system were received on February 2, 2024.

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

Well:

1. The top of the well casing must extend at least 12 inches above the concrete slab.
2. The concrete slab must be sloped to drain away from the casing.
3. The top of the casing must be sealed into the pump motor.
4. A screened, downward facing casing vent must be provided.
5. Provisions must be made for determining the depth to water surface in the well under pumping and static conditions.
6. Sample taps must be provided both upstream and downstream of the chlorine injection point.
7. Piping arrangements must include the ability to pump the total flow from the well to waste.
8. The well building must be constructed to allow removal of the well pump.
9. The well building must have a heat source, lighting, and the ability to be locked.

Chlorination:

1. The chlorine application must be proportional to the flow of water.
2. There must be provisions for restraining the chlorine cylinders with chains.
3. The room housing the chlorine must be ventilated by mechanical means at floor level and must have an air intake located higher than the exhaust ventilation.
4. Corrosion resistant lighting and ventilation switches must be located outside the enclosure adjacent to the door.
5. A platform or hydraulic scale must be provided for measuring the weight of the chlorine cylinders.
6. A gas mask or self-contained breathing apparatus approved by the National Institute of Occupational Safety and Health (NIOSH) for protection against chlorine gas must be provided and kept in good working condition. Storage of such equipment shall be in an area adjoining the chlorine room and shall be readily available. (Also see the Oregon Occupational Health and Safety regulations contained in OAR chapter 437.)

The construction of well MORR 52764/L14931 was reviewed by our staff hydrogeologist who provided the following comments:

The well is drilled to a depth of 702 feet below ground surface (bgs). The casing and split seal extend from land surface to a depth of 467 feet bgs. Calculations using the OWRD Well Sealing Requirement #3 calculator indicate that in the cement sealed sections more than an adequate amount of sealant was used. For more information on the Special Constructions for the well that were granted as a result of a caved and void zone in the Selah formation that required the use of a split seal, see the Final Order that was approved by OWRD after completion of the well on December 19, 2022. Also, for more information on the construction see the June 29, 2023 technical memorandum from GSI Water Solutions regarding Summary of Drilling, Construction and Testing of Port Well 6 – Municipal Water Supply Well. The well log indicates that the Columbia River Basalt aquifer is confined since the depth to the water bearing zone below the bottom of the casing seal was encountered at a depth of 510 feet bgs, and after completion the static water level rose to 274 feet bgs. The rise in static water level is an indication that the aquifer is under hydrostatic pressure and is confined.

I also have the following comments:

1. It is my understanding that the Port is working with the local OWRD watermaster regarding a water rights transfer for the new well.
2. It is my understanding the chlorination system will have regular inspections in lieu of a low-level alarm.

When it becomes available, please submit the following:

1. The make/model of the well pump and the depth the pump bowls are set.

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.

Sincerely,



William Goss, PE
Regional Engineer

- c: Julie Wray, OHA–DWS, Portland, OR
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