



# Oregon

Tina Kotek, Governor

Department of Environmental Quality  
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June 24, 2025

Jake Lowe  
Lowridge Onsite Technologies  
PO Box 1179  
Lake Stevens, WA 98258

RE: XO2-in-a-box® XO2-B Treatment Standard 1

You applied to Oregon Department of Environmental Quality to list the above-referenced product as an approved alternative treatment technology. DEQ has reviewed your application, plans, specifications, and other required exhibits for the XO2-in-a-box® system. The system's design flow rating is 500 gallons per day and your application was submitted requesting treatment standard 1 designation.

You provided third party NSF/ANSI testing data from an organization whose accreditation is specific to onsite wastewater treatment products certifying the product complies with all applicable DEQ rules. DEQ has reviewed these materials for compatibility with the standards and criteria found in Oregon Administrative Rules 340-071-0345. I am pleased to advise you that DEQ has found the following ATT system manufactured by Lowridge Onsite Technologies to meet the approval criteria for **Treatment Standard 1** when used as part of an onsite wastewater treatment system in Oregon:

XO2-in-a-box® XO2-B - Design Flow 500 gallons per day

Lowridge Onsite Technologies is authorized to manufacture, market, and distribute these ATTs for use in single family dwellings and commercial facilities in Oregon so long as the following conditions are met:

1. You must manufacture the ATT in compliance with DEQ's rules, approved plans and design specifications. Alteration of the ATT system design that might affect system performance must be approved by an ANSI accredited, third-party testing and certification organization and DEQ.
2. The approved version of the plans are labeled XO2-in-a-box® and are dated June 20, 2025.
3. Septic tanks and other tanks. Tanks must be approved for use in Oregon and refer to DEQ-approved drawing for specific configuration. The ATT system must include an Oregon-approved 1,500-gallon partitioned flow-through septic tank.

4. Per OAR 340-071-0345(6)(a), the system must be designed to prevent untreated waste passing into the absorption field if the plant malfunctions. The manufacturer has stated that the system is designed that if a malfunction occurs, sewage will surface before passing untreated or partially treated effluent to the soil absorption system.
5. An audible and visual alarm must activate in the event of electrical, mechanical equipment or hydraulic malfunction of the system.
6. A permit application must include a sieve analysis for the proposed sand media showing it meets the specifications outlined in the installation manual. The analysis must be conducted within 90 days of the permit application, unless the agent allows an older analysis.
7. You must train and certify maintenance providers on system maintenance for these ATTs. Individuals installing your system, and regulators in the county of installation, must be trained prior to installation of your products in Oregon, in accordance with the approved plan included in your application.
8. All tanks must be tested for watertight tested per OAR 340-073-0025.
9. Service contracts and inspection / service visits must meet or exceed the requirements of OAR 340-071-0345(14).
10. Unless otherwise authorized by DEQ, Lowridge Onsite Technologies must submit an annual manufacturer report. The report must include, but is not limited to:
  - a. A current list of each ATT sold in the State of Oregon for the reporting period, including the model number, serial number, and the property address where the ATT is located;
  - b. A current list of all maintenance providers certified by Lowridge Onsite Technologies and;
  - c. The material plan review fee in OAR 340-071-0140(5).
11. All other applicable rules and requirements within OAR 340-071 and 073 must be followed.

Pursuant to OAR 340-071-0345(2)(e), DEQ has the authority to remove ATTs from the approved list if DEQ determines that the requirements for approval are no longer satisfied, or if any of the following conditions have occurred:

- Ten percent or more of system under 10 years of age fail;
- The ATT does not produce effluent quality equal to or better than Treatment Standard 1 requirements, respectively, under normal operating conditions;
- The manufacturer fails to submit the annual report and annual compliance determination fee by the date specified by DEQ; or
- The manufacturer goes out of business.

DEQ's decision to list this ATT as approved does not constitute an endorsement of the product. Moreover, DEQ is not responsible for any situation that may result from improper use or misapplication of your product.

If you have any questions regarding this letter, I may be reached at [sean.rochette@deq.oregon.gov](mailto:sean.rochette@deq.oregon.gov).

Sincerely,

A handwritten signature in black ink that reads "Sean Rochette". The signature is fluid and cursive, with the first name "Sean" and last name "Rochette" clearly distinguishable.

Sean Rochette  
Onsite Manager

Enclosures – approved plans

EC: All Contract County Offices  
All DEQ Direct Service Offices