

Engineering Design Review Exemption Process

Background

Proper design, construction and operation of municipal sewer and wastewater treatment systems are vital to protecting our environment for healthy use and enjoyment. Without consistent design criteria and oversight, even a good idea can lead to operational and environmental compliance headaches.



Currently, the Oregon Department of Environmental Quality requires all sewerage and wastewater treatment system owners to obtain written approval prior to any construction, installation or modification project. Owners must submit for review and approval all of their system improvements from preliminary design (pre-design) to as-built drawings, including operations and maintenance plans.

However, certain municipalities (including sanitary districts and authorities) have the resources and discipline to conduct thorough design reviews on their own. Oregon law (Oregon Administrative Rule 340-052-0045) allows for municipalities to apply for exemptions to plan submittal and review.

Advantages of plan review exemptions

The main advantage of a plan review exemption is the elimination of time budgeted for plan approval after the pre-design report stage. This allows a more expedited design process, a more direct relationship with the project engineer and possibly a speedier construction schedule. Alternative delivery systems, such as Construction Manager/General Contractor (CM/GC) and Design/Build, may be more easily incorporated under an exemption.

What is an exemption from plan submittal?

Oregon rules (Oregon Revised Statute 468B.055) prohibit construction, installation or modification of disposal systems, treatment works, or sewage systems *until plans and specifications are submitted to and approved in writing by DEQ*. Plan review applies to proposed improvements to sanitary sewers, sanitary sewer pump stations, septic tank effluent/gravity systems and wastewater treatment plants.

Municipalities may request plan submittal exemption in two different categories: collection system and treatment plant. Each has different requirements. In all cases the design must adhere to DEQ's design guidelines and standards.

Expectations for exempted municipalities

1. Collection system projects

Municipalities exempted from submittal of plans for collection system projects must review all projects for compliance with DEQ and local standards, including a collection system master plan. The municipality may either keep an Oregon-registered professional engineer on staff or hire a consulting Oregon-registered PE not associated with the project to review the plans. This individual must have the authority to approve or deny the plans based on these standards. While DEQ would be available for technical assistance, exempted municipalities must perform these reviews without DEQ assistance.

DEQ classifies collection system exemptions in three categories: gravity sewer systems, alternative sewer systems (including septic tank effluent pump/gravity, vacuum and grinder pump), and pumping stations. Exempted municipalities do not submit plans, but submit operations and maintenance manuals for pumping stations, and administrative requirements for alternative systems (e.g. owner contracts) for DEQ review.

2. Wastewater treatment facilities

Municipalities exempted from submittal of plans for sewage treatment plant projects must have professional staff, including an Oregon registered PE, who have adequate technical and managerial experience. These municipalities must also submit all facilities plans and



State of Oregon
Department of
Environmental
Quality

Water Quality Division Regional Engineers

Eastern Region:

- Heidi Williams, PE, Pendleton, 541-278-4608

Northwest Region:

- Michael Pinney, MS, PE, Portland, 503-229-5310

Western Region:

- Jon Gasik, MS, PE, Medford, 541-776-6010
- Tim McFetridge, PE, Salem, 503-378-8240

www.oregon.gov/DEQ/

Guidance documents may be found at:
www.deq.state.or.us/WQ/Rules/Div-52/Guidance

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preliminary design reports for DEQ review and approval.

Exempted municipalities must also submit a predesign report for DEQ approval for any proposed modification that would affect the permit, such as a new or modified outfall, treatment capacity expansion, a new or modified disinfection system, and/or new treatment units. Also, predesign reports are required for any projects receiving Clean Water State Revolving Fund Program (SRF) monies. Additionally, an operation and maintenance manual must be submitted to and approved by DEQ *prior* to system startup and as-built plans must be submitted upon project completion.

Process for seeking an exemption from plan submittal

For collection systems, the owner must:

- a. Be a municipality.
- b. Make a written request for an exemption. The request must state the type of plan submittal exemption requested (such as sanitary sewer, sanitary sewer pump station, septic tank effluent pump/gravity). The request must also include a statement that the owner agrees to approve and construct sewerage systems in conformance with DEQ rules, the owner's standards and operating permit.
- c. Submit documentation of adequate, responsible, professional staff including an Oregon registered professional engineer, or that the project will be reviewed by an Oregon-registered professional engineer not associated with the project.
- d. Review local standards for consistency with applicable DEQ rules, standards and guidance documents. These local standards must be modified as necessary.
- e. Submit a copy of the local standards, including all specifications, by which sewerage system construction will comply.
- f. Submit a current collection system master plan.

For wastewater treatment plants, the owner must:

- a. Be a *major* municipality [also defined as a "Tier 1 domestic facility" by Oregon law/OAR 340-045-0075(3)(b).]
- b. Make a written request for an exemption. The request must include a statement that the owner agrees to:
 - Submit all facilities plans and pre-design reports for DEQ approval.
 - Ensure that the final design and construction comply with DEQ rules, the approved facilities plan, applicable

redesign reports and terms of the permit.

- Submit a copy of the operations and maintenance manual for DEQ approval.
 - Submit copies of the *as-built* plans.
- c. Submit documentation that it has adequate, responsible, professional staff including an Oregon-registered professional engineer.
 - d. Submit, for major facilities less than 30,000 in population, a written report demonstrating technical and managerial expertise in planning and constructing wastewater treatment and disposal facilities, including:
 - Demonstration of adequate, professional staff experienced in the design and inspection of complex sanitary engineering projects, including a registered professional engineer with review authority binding upon the design engineer;
 - History of compliance with permit conditions;
 - Demonstration of project technical support capability.

Report writing and technical design assistance and guidelines:

Technical design criteria documents are available either from your local DEQ engineer or on the DEQ's website:

www.deq.state.or.us/WQ/Rules/Div-52/Guidance.

For more information

Contact the nearest DEQ regional engineer (listed on page one of this fact sheet in the far right-hand column).

Alternative formats

Alternative formats of this document can be made available. Contact DEQ's Office of Communications and Outreach, Portland, at (503) 229-5696, or call toll-free in Oregon at 1-800-452-4011, ext. 5696.