



Fact Sheet

Fuel Tank Seismic Stability

Overview

The Fuel Tank Seismic Stability Program at the Oregon Department of Environmental Quality was created by Senate Bill 1567 in 2022. DEQ manages this spill prevention program, which aims to evaluate and improve the earthquake safety of large oil and fuel storage facilities. The law requires facilities with more than two million gallons of storage capacity in Columbia, Lane, and Multnomah counties, mainly in the City of Portland, to assess their seismic vulnerability and plan for risk reduction. The purpose of the program is to minimize the risk of major oil and fuel spills, fires, and environmental contamination that could result from a significant earthquake such as the Cascadia Subduction Zone.

Benefits

A large earthquake could cause widespread ground shaking, soil liquefaction, and structural failures, endangering fuel tanks, pipelines, containment systems, and safety equipment. Without proactive mitigation, this could result in catastrophic fuel spills, fires, explosions, and environmental contamination. The program intends to minimize these risks before an earthquake occurs to protect public health, life safety, and the environment. When implemented, the risk mitigation measures aim to prevent large fuel spills that could contaminate soil, groundwater, and rivers. Additionally, improved resilience to a major earthquake event reduces the risks posed to critical infrastructure and the burden on emergency response services.

The program promotes transparency and community dialogue, allowing residents to support or raise concerns about facility plans in their neighborhoods.

DEQ program staffing

As of 2025, the program includes four staff: an engineer, an inspector, a program analyst and an administrative coordinator. Additionally, a manager shares responsibilities between DEQ's Seismic Stability and Hazardous Waste programs. In addition to DEQ staff, the program contracts with Moffatt and Nichol engineers, Portland State University scientists, the Oregon Department of Geology and Mineral Industries, and Washington Ecology to assist with engineering reviews and program implementation.

Translation or other formats

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Funding

General Fund and fee revenues support the Fuel Tank Seismic Stability program. The program charges the following fees:

- Seismic Vulnerability Assessment Submittal Fee: \$39,000
- Risk Mitigation Implementation Plan Submittal Fee: \$36,000
- Annual Compliance Fee: required each year by June 1 until the facility has completed and obtained DEQ approval of all implemented risk mitigation measures:
 - Year 1: \$23,000
 - Year 2 and subsequent years: up to \$50,000/year
- RMIP Modification Fee: \$5,000 applies when the facility requests changes to a previously submitted mitigation plan or if DEQ modifies a plan under certain rule provisions.

Seismic Risk Mitigation Fund

Established under statute ORS 468B.525, this dedicated fund is separate from the state General Fund and provides a mechanism for potential financial assistance or grants to facilities aimed at mitigation efforts, contingent upon the availability of federal or other funds to DEQ. As of December 2025, no funds are available.

Seismic Vulnerability Assessments

Must evaluate geotechnical, structural, and safety aspects

- Geotechnical: Soil and subsurface conditions (e.g., liquefaction risk).
- Structural: Integrity of above-ground/underground storage tanks, pipelines, foundations, containment structures, loading racks, buildings, and any other site structures that could fail or leak.
- Safety: Assessment of fire suppression systems, spill-containment systems, emergency response equipment and procedures, potential impacts of a quake on these systems, and operational/readiness considerations.

Risk Mitigation Implementation Plans

The Risk Mitigation Implementation Plan is due six months after DEQ approves the Seismic Vulnerability Assessment. The RMIP must propose strategies to address the vulnerabilities identified in the SVA and to minimize risks associated with a potential earthquake.

The RMIP must describe any remaining risks after the proposed plans are implemented, as well as outline their emergency response measures. All risk reduction work must be completed within 10 years of plan approval. As of December 2025, two Risk Mitigation Implementation Plans have been approved: one for PDX Fuel, LLC and another for Portland General Electric.

Technical assistance

DEQ issued the "Road to Compliance," which includes 10 checklists for geotechnical, structural, piping, containment, control equipment, etc., along with a "Supplemental document" to help regulated facilities

develop and organize SVAs. These technical assistance documents clarify the required analyses and documentation, give a clear “template” for assessments and streamline the review process.

DEQ holds meetings with facilities and their consultants to discuss the application of rules, expectations, and industry standards. The team also conducts site visits to identify specific vulnerabilities.

Shared learning/peer support

DEQ, in collaboration with Portland State University, convenes workshops and community-of-practice gatherings. These events bring together seismic, geotechnical and structural experts, facility operators, regulators, community, and other interested parties to discuss best practices, share lessons learned, and identify ongoing needs. This collaboration helps facilities learn from each other, from technical experts and local, state and federal agencies.

Reporting requirements

Regulated facilities must comply with several status reporting and record retention obligations.

- When mitigation is underway, facilities must submit annual risk mitigation implementation status reports until DEQ approves the completion of implementation.
- After implementing all mitigation measures, facilities must submit a final post-implementation report (or series of reports) within 180 calendar days of completion. The report(s) must include: (a) actual engineering specifications of the work performed, and (b) an updated description of any remaining residual risk.
- Facilities must retain all records related to their RMIP, including assessments, designs, modifications, and supporting documentation, for 10 years from the date of submission to DEQ.
- For structural modifications, risk mitigation implementation, and any changes or updates (including reactivating idle equipment, changes to facility operations, or major modifications), facilities must submit amendments or updated plans to DEQ for approval before implementing changes.
- If facilities make changes to a previously approved mitigation plan (or respond to new scientific or technical data), they must submit a modified RMIP or revised information, subject to DEQ approval.

Review and approval process

- DEQ reviews and must approve the submitted SVA before facilities proceed with RMIPs.
- RMIPs must meet program requirements and show that, when implemented, they will effectively minimize risks to human health, safety, and the environment in the event of a damaging earthquake or related secondary effects.
- DEQ may share proposed mitigation plans with other agencies (e.g., the Oregon Department of Geology and Mineral Industries, Office of the State Fire Marshal, Oregon Department of Energy, and relevant local governments) for their review before final approval.

Community involvement

- Keep informed of DEQ announcements by signing up for the [GovDelivery mailing list](#).
- Review proposed Risk Mitigation Implementation Plans when posted.
- Submit comments during the 30-day public comment period before RMIP approval.

- Watch for progress reports. DEQ publishes annual program status updates in July. Facilities with approved RMIPs must submit annual status updates until mitigation is complete.

Enforcement

The program includes enforcement provisions in Oregon Administrative Rules Chapter 340 Division 12, which covers violations of the FTSS rules. DEQ groups violations into two classes depending on severity:

Class I Violations (most serious), including:

- Failing to submit a required SVA.
- Failing to submit a required RMIP.
- Operating a bulk-fuel terminal or storage facility without an approved (or conditionally approved) SVA or RMIP.
- Failing to implement an approved RMIP.
- Failing to maintain equipment, personnel, and training as described in the approved RMIP.

Class II Violations, including:

- Denying DEQ (or its contractors) access for inspection when requested.
- Failing to submit or implement required changes to an SVA or RMIP after DEQ approval/conditional approval.

What's been accomplished so far:

- As of the statutory SVA deadline of June 1, 2024, 16 facilities submitted their initial SVA to DEQ.
- In early 2025, the first FTSS-regulated facility, PDX Fuel Company, LLC began implementing its mitigation work. That facility submitted its SVA and RMIP, received DEQ's approval after public comment, and on June 6, 2025, submitted its first annual implementation status report, showing they are on track to meet one, three and five year 1-, 3-, and 5-year mitigation milestones.
- A second facility, Portland General Electric's Beaver Plant, submitted its RMIP in April 2025. The facility intends to end oil storage at the site. DEQ approved the RMIP on Nov. 24, 2025, following modifications requested after a 30-day public comment period.
- Vigor Industrial signed an enforceable Mutual Agreement and Final Order (MAO) with DEQ. Under that MAO, Vigor committed to eliminating four million gallons of oil storage capacity by 2028, rather than proceeding through the complete SVA and RMIP process. Under the agreement, Vigor must submit progress reports to DEQ every other month between July 2024 and July 2028, to track the capacity reduction. On June 4, 2025, DEQ conducted its first inspection of Vigor's facility to confirm compliance with the MAO.
- DEQ reviewed all submitted SVAs, and in most cases, requested additional information in the iterative review phase before the assessments could be considered complete under program requirements.
- All facilities submitted and DEQ approved timelines for a final SVA submittal complete with check-ins and milestones schedule.

Regulated facilities

Columbia County

- Cascade Pacific Bio-Refinery
- Portland General Electric, Beaver Plant & Port Westward

Lane County

- Kinder Morgan Liquids, Eugene SFPP LP

Multnomah County

- Chevron Fuels, Willbridge
- Kinder Morgan Liquids, Linnton
- Kinder Morgan Liquids, Willbridge
- McCall Oil & Chemical Corporation
- NW Natural
- Owens Corning Roofing and Asphalt
- Pacific Terminal Services
- PDX Fuel Co., LLC
- Phillips 66 Co.
- Seaport Midstream Partners, LLC
- Sunoco NuStar Energy LP, Portland Terminal Shell Triton West, LLC
- Vigor Industrial
- Zenith Energy Terminals

More information

[Fuel Tank Seismic Stability Program web page](#)

For more information

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