



Oregon Department of Environmental Quality

Frequently Asked Questions

Zenith Oil Terminal and DEQ Regulations

The following questions is a comprehensive list from the public information session the Oregon Department of Environmental Quality held on April 17, 2024, and recorded by Columbia Riverkeeper. DEQ grouped the questions by topic, and the table of contents below provides jump links to those sections.

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Key links and resources:

- [DEQ's web page for Zenith](#)
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- [DEQ's Emergency Response Program](#)
- [DEQ's Fuel Tank Seismic Stability Program](#)
- [DEQ's Office of Compliance and Enforcement](#)
- [DEQ's ambient air quality monitoring](#)
- [DEQ's Cumulative Health Risk Pilot](#)
- [DEQ's Clean Fuels Program](#)
- [City of Portland – Zenith Land Use Compatibility Statement](#)

Air Quality Program and emissions

Accountability and enforcement questions

DEQ received several questions around Zenith's history of non-compliance:

- **How do you justify trusting a company that has repeatedly misled and lied to regulators and has a history of violations?**
- **Given that Zenith has a history of misleading regulators (including DEQ), and they violated City lobbying policies to obtain the LUCS, how do you justify allowing Zenith to expand?**
- **What is the threshold for the quantity of violations before an air permit is revoked? For example, DMV will revoke a license for five years if someone is convicted of three or more serious offenses within a five-year period. Are there such accountability mechanisms in place for Zenith Energy?**
- **With Zenith's history of misleading various public entities, including DEQ, how can you trust Zenith to reliably report for any inventories/regulatory measures discussed today?**

DEQ will continue to hold Zenith accountable to its permits. The self-monitoring and reporting requirements in the current and draft permits are representative of most requirements for all air, water, and land permits issued by DEQ and the U.S. Environmental Protection Agency. DEQ will also perform on-site inspections to ensure that Zenith is complying with all applicable permit requirements. Periodic source testing (which tests air emissions at the source) is performed by an independent third-party company, and DEQ staff can witness this testing on site.

DEQ does not have a specific threshold for revoking an air quality permit. However, compliance history is a consideration for permitting and enforcement decisions.

DEQ does not base permitting decisions on how much they trust a person or facility. DEQ must use its authority to regulate facilities according to state law and hold them accountable to their permits.

What accountability mechanisms are in place for violations to the permit?

DEQ will evaluate compliance with the air quality permit by performing site inspections and reviewing submissions required under the permit. DEQ will pursue enforcement as appropriate according to its enforcement policies and rules. Depending on the violation, this may include civil penalties or an order to comply. Learn more about [DEQ enforcement](#).

What safeguards will be in place to continually monitor Zenith's changes in types of fuel? They've only committed to stopping the handling of crude oil. What about aviation fuel? Tar sands? Diesel?

The air quality permit will require notification for when Zenith no longer handles crude oil and will require Zenith to provide the type and quantity of all products handled in an annual report. Zenith will continue to handle aviation fuel and conventional diesel but must do so in accordance with their LUCS. Tar sands is a type of crude oil and Zenith will no longer be allowed to handle it come October 2027.

How do you monitor exactly what materials Zenith is transporting? Does DEQ require monitoring and onsite observation? If they are carrying multiple different substances in the year, how does that get addressed?

Zenith is required to report the type and quantity of all products handled through their facility as part of their air quality annual report. During inspections, DEQ staff review records to ensure that they are consistent with reported data.

Inspections and self-reporting questions

What is DEQ's plan to protect the community and ensure that this company is abiding by the agreements in their permits?

DEQ will continue to review all reports Zenith submits and inspect the facility to determine its compliance with applicable regulations. If Zenith violates its permit, DEQ will hold the facility accountable.

It sounds as though much of DEQ's oversight of Zenith's operation depends on self-reported data. Could someone from DEQ speak to their sense of the risk of the agency falling prey to "regulatory capture"?

DEQ, like all other states, relies on self-reporting from facilities and is charged with reviewing all reports and notifications those facilities submit. The self-monitoring and reporting requirements in the draft permit are representative of most requirements for all air, water and land permits issued by DEQ and EPA. DEQ staff will also perform on-site inspections to ensure that Zenith is complying with all applicable permit requirements. Periodic source testing (which tests air emissions at the source) is performed by an independent third-party company, and DEQ staff can witness this testing on site.

Will the LDAR summaries, inspection reports, or final emissions calculations be publicly available?

All reports submitted by Zenith, inspection reports, correspondence, and applications are available via public records request at: orideq.org/publicrecords.

It sounds like you are depending on Zenith to report about their emissions, true? How can you trust Zenith to be truthful when they have not been truthful in the past?

DEQ will hold Zenith accountable to its permit. Emissions reporting procedures are specifically stated in the facility's permit and reporting using unauthorized methodologies would be considered a violation of the permit. DEQ reviews all reports and notifications submitted by Zenith, including the annual emission calculations. The self-monitoring and reporting requirements in the permit are representative of most requirements for all air, water, and land permits issued by DEQ and EPA. DEQ will also perform on-site inspections to ensure that Zenith is complying with all applicable permit requirements and to ensure that records on site are consistent with reported data. DEQ has the authority to require source testing for any stationary source and included periodic testing of the vapor combustion unit in the draft air quality permit.

Monitoring questions

How can these new numbers be trusted without any actual on-site monitoring to confirm that the new calculations are accurate and reflective of what is really happening on site?

The updated emission calculations are considered the best available data for the applicable emissions units. In addition, Zenith is required to perform emission testing on the vapor combustion unit to ensure that the

emissions data provided by the manufacturer is accurate and to verify compliance with the applicable volatile organic compound reasonably available control technology emission limit.

What kind of air quality monitoring goes on now? How will this be expanded as new products and modified products may impact air quality?

DEQ does statewide ambient air quality monitoring to ensure that the state is in compliance with federal air quality standards. DEQ has four nearby ambient air monitors that measure small particulate matter, or PM_{2.5}, in Portland: Portland Roosevelt High School, Portland Humbolt (near Jefferson High School), Portland Lincoln High School, and Portland SE 12th and Salmon. DEQ also has a rotating air toxics monitor that moves throughout the state. Additional information on DEQ's monitoring activities is available on our [air monitoring web page](#). To install additional monitors, DEQ would need additional funding.

Will Zenith do emissions monitoring? Will Zenith be audited to reveal its process for self-reported emissions monitoring?

Yes, Zenith is required to monitor multiple operational parameters (e.g., product type, throughput, fuel use, etc.) and perform stack testing on the vapor combustion unit.

In their application Zenith notes they won't be doing any air quality monitoring. Is this true? How can this be allowed?

It's rare that facilities are required to perform their own ambient air quality monitoring for [criteria pollutants](#), meaning the six common pollutants covered under federal air quality standards. DEQ does not have any evidence of a federal air quality violation in the area and Zenith is a minor source of criteria pollutants, so DEQ does not have justification to require monitoring of criteria pollutants based on the current regulations.

However, Zenith received an information request from the EPA requiring the facility to install, use, and maintain air monitoring equipment and sample for benzene, toluene, ethylbenzene, xylenes, and n-hexane at its fence line. This is a completely separate action outside of DEQ's air quality permitting program and is managed by EPA. For more information or questions about this, you can contact Suzanne Skadowski at EPA at skadowski.suzanne@epa.gov.

Does DEQ require that Zenith monitor heavy metals (lead, cadmium, etc.), hydrogen sulfide, dioxin, and polyaromatic hydrocarbons?

The draft air quality permit does not require ambient monitoring or testing for these pollutants. Aside from lead, none of the listed pollutants are [criteria pollutants](#) nor do they have applicable ambient air quality standards. However, these pollutants are covered under [DEQ's Cleaner Air Oregon program](#). Zenith is in Group 3 of this program and has not yet been called in.

Which emissions are required to be continuously monitored at the source?

None. The draft air quality permit does not require the use of a continuous emissions monitor.

What emissions will be required to be spot-checked?

The draft air quality permit requires emissions testing of volatile organic compounds, carbon monoxide, and nitrogen oxides from the vapor combustion unit. This tests how efficiently the pollution control is working.

Can you say how many times the DEQ has actually monitored the emissions coming out of Zenith's trains and tanks? What dates? Is it weekly? Monthly? Yearly? What were the results? What is the role of DEQ if it is not to actually monitor and not just to read Zenith's words?

DEQ is provided notification prior to Zenith performing emissions testing and tank inspections to allow a DEQ observer to be present. Emissions reporting procedures are specifically stated in the facility's permit and reporting using unauthorized methodologies would be considered a violation of the permit. DEQ reviews all reports and notifications submitted by Zenith, including the annual emission calculations. DEQ also performs full compliance inspections of the facility once every two years to ensure compliance and verify that records on site are consistent with reported data.

Public health questions

Why is it that air quality impact measurements on humans were based on a healthy middle-aged adult? What about the specific aspects of children, the elderly, or those with existing medical complications?

The [National Ambient Air Quality Standards](#), created by EPA, include both primary and secondary standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as people with asthma, children, and older adults. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

What are the public health benefits when comparing crude oil to "renewable" naphtha?

The main difference is that renewable naphtha contains lower quantities of hazardous air pollutants and hydrogen sulfide.

What data is available to support that this transition will result in a real-world reduction of harm for public health outcomes?

To formally quantify risk, a risk assessment must be performed, which is required under DEQ's Cleaner Air Oregon Program. Zenith is currently in Group 3 for call-in under the CAO program. "Group 3" is defined in the [CAO Facility Call-in Prioritization Protocol](#). However, the proposed emission limits in the draft air quality permit represent significant decreases in the potential for Zenith to emit pollutants.

Considering cumulative impacts questions

Zenith operates in an environment next to a slew of other toxin-emitting entities. How do these emissions interact and is DEQ taking this into account?

At this time, DEQ does not have the authority to regulate cumulative risk from multiple sources. However, as part of Cleaner Air Oregon, DEQ is allowed to conduct a single pilot program to examine how cumulative emissions regulation could work. Learn more on [DEQ's Cumulative Health Risk Pilot web page](#).

Safe levels of airborne toxins are determined based on exposure to a single toxin, but exposure to airborne toxins is nearly always to a host of toxins that interact in various ways that can potentiate their harm to human health. Does DEQ take this into account?

DEQ's Cleaner Air Oregon Program does consider the cumulative risk to individuals exposed to multiple toxic air contaminant emissions from a single facility, but this is only done in an additive manner. For example, all the cancer and noncancer risk values are added together to get the final risk. The program does not consider more complex toxicological effects that could occur when someone is exposed to multiple chemicals, which could include increases or decreases to risk beyond simply adding up the risk.

Renewable naphtha questions

"Renewable" diesel was mentioned over 30 times in Zenith's LUCS application, but there was no mention of "renewable" naphtha. What concerns do you see over the omission of "renewable" naphtha in the LUCS?

The land use compatibility statement specifies that fossil fuels and renewable fuels are synonymous with the definitions of "fossil fuel" and "renewable fuel" in PCC 33.910.030 that was recently adopted in Ordinance 190978, with the understanding that renewable feedstocks (as defined by EPA) is considered a "renewable fuel." Specific questions regarding omission of "renewable naphtha" from the LUCS application should be directed to the City of Portland. [See the section below on land use compatibility statement questions.](#)

DEQ received several questions comparing renewable naphtha to crude oil. The answer to these questions is combined below.

Questions:

- **How does "renewable" naphtha compare to crude oil and "renewable" diesel in terms of VOC's, greenhouse gas emissions, etc.?**
- **How does "renewable" naphtha compare to crude oil and "renewable" diesel in terms of volatility, flammability, environmental and habitat risk?**
- **What is the vapor PSI for "renewable" naphtha?**
- **Given the known and documented high toxicity for aquatic life and ecosystems and the explosive nature of "renewable" naphtha, how is this transition being justified as safer for our communities?**
- **Can you provide data to help us understand how "renewable" naphtha is an improvement to the risks (explosions, harm to aquatic life, pollution emissions, etc.) from crude oil?**

Volatile organic compound (VOC) emissions from the products handled at Zenith are primarily based on the vapor pressure of the material. Renewable naphtha is included as a higher volatility (e.g., higher vapor pressure) material handled by Zenith. The calculation sheets, accessible on [DEQ's Zenith project web page](#), detail the specific calculations for VOC emissions from storage and handling of multiple products. The vapor pressures used in the loadout calculations are included below:

- Crude oil: 7.00 psia
- Renewable Naphtha: 2.68 psia
- Ethanol: 1.80 psia
- Renewable Diesel: 0.011 psia

As described in the [emergency response section below](#), when spilled, renewable naphtha behaves similarly to gasoline.

The transition from crude oil is part of the LUCS requirements. DEQ's air quality program regulates sources based on their potential to emit using plant site emission limits. The proposed emission limits represent significant decreases in the potential for Zenith to emit pollutants.

Marine vapor combustion unit questions

Has the DEQ monitored the air around the "marine vapor combustion unit" for toxins?

Zenith performed stack testing in December 2022, to determine outlet VOC, CO, and SO₂ emissions from the marine vapor combustion unit. The resulting emissions were: 0.02 lb VOC/10³bbl, 1.10E-04 (0.00011) lb CO/10³gal, and 1.72E-04 (0.000172) lb SO₂/10³gal. The VOC result of 0.02 lb VOC per 1,000 barrels is 1% of the applicable emission limitation, 2 lb VOC/ 1,000 barrels, in Oregon's Reasonably Achievable Control Technology regulations for marine loading [OAR 340-232-0110(4)].

The resulting CO emission rate corresponded to 0.07 lb/hr, which is significantly less than the predicted emissions of 16.17 lb/hr and the resulting SO₂ emission rate corresponded to 0.11 lb/hr, which is less than the predicted emissions of 0.56 lb/hr.

Did Zenith do an initial source test for the existing marine vapor combustion unit to ensure compliance before initiating use?

No. The marine vapor combustion unit installation was approved as part of a Type 2 Notice of Intent to Construct application in 2017 and was installed in 2018. The first source test on the unit occurred in December 2022.

How often have tests of the marine vapor combustion unit occurred? And, are these test results, if they happen, available to the public?

There has been one emissions test for the marine vapor combustion unit, which occurred in December 2022. A brief summary of the test results is included in the [permit review report](#). All test results are public and can be requested through a public records request at: ordeq.org/publicrecords.

Volatile organic compound emissions questions

Please explain how Zenith can accomplish such a significant decrease in fugitive volatile organic compound (VOC) emissions, given the use of the same infrastructure.

VOC emissions will decrease because Zenith will handle products with a lower vapor pressure. The same infrastructure can be utilized to handle various type of products, so new construction or reconstruction of infrastructure is not necessary.

Will you share the calculation sheets for VOC emissions?

Yes, the calculation sheets are uploaded to the [Zenith project page](#).

Are the emission calculations for this application the same algorithms that Zenith has previously used to calculate emissions, specifically VOCs?

The tank emission calculations algorithms used in the air quality permit are similar to what Zenith has previously used, but this permit specifies that the most current version of the algorithms must be used. The leak detection and repair emission factors in the permit being drafted are significantly different than those in Zenith's current air quality permit. The [permit review report](#) includes a discussion as to why these emission factors are being revised.

Does using a new algorithm to calculate fugitive VOC emissions create a scenario where you see a big deduction of emissions on paper, but it is largely the result of changing the math rather than improving equipment, materials handled, or on the ground practices that actually reduce emissions?

In a separate facility, the updated tank emission algorithms resulted in slightly lower VOC emissions than the emissions obtained from the (outdated) Tanks 4.09d. The main “on the ground practice” that results in VOC emission decreases is the switch from handling crude oil to products with a lower vapor pressure.

Given that Zenith’s annual VOC emissions are projected to nearly double compared to 2019 numbers, how would this fit into Oregon’s goals to reduce harmful emissions?

DEQ’s air quality program regulates sources based on their potential to emit through the plant site emission limits program. The proposed emission limits represent significant decreases in the potential for Zenith to emit pollutants. For example, the VOC plant site emission limit will decrease from 189 to 39 tons per year. A full discussion of proposed changes is available in the [permit review report](#) and a table of proposed changes is available in the [public notice](#).

Miscellaneous questions related to air quality permit

Are there any best available control technology (BACT) requirements for Zenith?

No. BACT is a requirement for facilities that must go through state or federal new source review. Zenith is applying for an air quality permit with [synthetic minor source](#) limits and is therefore not subject to federal or state new source review provisions

Has DEQ reviewed or conducted Life Cycle Cost Analysis for “renewable” naphtha—analyses that consider all impacts including extraction, use, end of life? If so, is this information available to the public?

No. DEQ’s stationary source permitting program looks at emissions generated from a stationary source. This includes emissions from handling and storage of materials but does not include production, travel to/from the Zenith facility, or the end use. For this type of analysis to be required, a change in DEQ’s rules would be necessary.

Will you share publicly a breakdown of the types and quantities of throughput included in the distillates category?

The proposed air quality permit requires Zenith to provide type and throughput of each liquid handled. Recent annual reports under the current permit are available on [DEQ’s Air Quality Permit database](#).

How are people warned if there is an accident affecting air quality or other issues relevant to the public?

The draft air quality permit includes a condition which requires Zenith to notify DEQ of excess emissions events when they are of a nature that could endanger public health. If these excess emissions events occur during non-business hours, weekends, or holidays then Zenith must immediately notify DEQ by calling the Oregon Emergency Response System. DEQ has duty officers responding to these calls 24 hours a day, every day of the year. DEQ can coordinate with local emergency responders who can utilize tools like reverse 911 or other communication methods to notify residents of any necessary steps they should take.

Given that “renewable” naphtha is highly flammable and vapors can travel at ground level to an ignition source, how will Zenith and DEQ ensure flashback explosions and fires will not occur?

Fire prevention and worker safety issues would be regulated by [Oregon State Fire Marshal](#) and Oregon Occupational Safety and Health Administration.

Since the renewable fuel standard does not apply to Zenith’s operations, can you identify regulatory enforcement language that would be applicable to Zenith’s storage and transport operations in terms of renewable fuels standards for Oregon.

Oregon’s renewable fuel standard is implemented by the Department of Agriculture and applies to fuels being dispensed for sale at gas stations or being sold to fleets. The City of Portland’s renewable fuel standards also apply to fuels being sold at retail within the city. The federal renewable fuel standards are implemented by EPA and apply to all applicable fuel being sold in the U.S. and does cover fuels at the wholesale level, generally by making the owner of the fuel responsible for achieving the standards.

[DEQ’s Clean Fuels Program](#) applies to all regulated fuels imported or produced for use in-state and makes the owner of that fuel responsible for compliance with the program’s declining carbon intensity standards. It does not apply directly to the owner of a facility that stores, transports, or transloads fuel unless that owner of the facility also owns the fuel.

Emergency Response Program and spills

General questions

Can you identify the regulatory language that exists to hold a Zenith—a storage and transport facility that does not own the products it is handling—accountable for accidents, spills, and explosions that occur with trains, trucks, or marine vessels bound for or having departed the Zenith facility?

[Oregon Revised Statute 468b.300](#) defines “Responsible Party” the same as under the Oil Spill Prevention Act of 1990: “Whoever owns or has control over the oil”, which would be Zenith if the spill happened there.

The specific language in Oil Spill Prevention Act of 1990 is: “In the case of an onshore facility (other than a pipeline), any person owning or operating the facility, except a Federal agency, State, municipality, commission, or political subdivision of a State, or any interstate body, that as the owner transfers possession and right to use the property to another person by lease, assignment, or permit.”

Who is there [at a drill] from DEQ to see what Zenith is doing?

DEQ’s Spill Response Coordinator attends all worst-case drills, oversees many of the other drills and reviews all drill reports. Additional DEQ staff attend as many drills as scheduling allows. These can be several types of drills or exercises such as equipment deployment drills, tabletop or functional exercises, worse-case scenarios, mutual aid deployment exercises, and a competition around boom deployment.

Who pays for the emergency response drills and personnel? Specifically, is Zenith paying for this protection?

Yes. DEQ receives funding from petroleum facilities, pipelines, and commercial vessels. The fees are established in [ORS 468b.405](#), and for a facility such as Zenith this is \$20,000 annually.

In the past, Zenith misrepresented the products they were moving and did a spill drill with diesel when they were actually moving the thicker tar sands oil, which would have required different equipment. Does DEQ have a protocol now to be sure that the spill response drills are done for the actual substances which could be spilled?

Yes, planning for spill drills has been improved to ensure that we are exercising using a product the facility actually has on site, and we rotate the product spilled (in drill scenarios) regularly to ensure that facilities maintain proficiency in responding to any type of petroleum product found at their facility.

In the event of a spill at Zenith, what is the DEQ's spill response plan?

The tactics for a spill response are always highly dependent on a variety of factors such as weather, type of oil, location, etc. DEQ staff are trained to identify the risks to public health and environment. Most responses start by identifying the type of oil, its physical and chemical properties, and predicting how the spill will interact with the environment. This helps inform the fastest and most effective cleanup options, which can vary widely. For this reason, we use the [Northwest Area Contingency Plan](#) to help identify the best response options, and many of them are further identified in Zenith's Oil Spill Contingency Plan which details the equipment, personnel, and response options which may be employed during a response.

What is the spill response plan for "renewable" naphtha? How does it differ from the spill response plan for oil?

While each spill is unique and requires a response tailored to the situation at hand, a renewable naphtha response would be very similar to a gasoline spill response, which DEQ practices regularly in drills and real-world spills. This would be similar to most petroleum cleanups, with an emphasis on collaboration with other responding agencies, community air monitoring, a robust health and safety plan, and increased soil sampling and screening. DEQ has also worked with partner agencies and Tribes to develop geographic response plans, which identify sensitive environmental and cultural areas.

What happens if Zenith fails a spill drill exercise?

If a company fails an oil spill drill or exercise, they are required to conduct another drill within six months. If they also fail that exercise, DEQ can take away their authorization to conduct transfers of petroleum over waters of the state, which would mean their ability to use their dock.

Worst-case scenario spill drill questions

Who sets the standard that the worst-case scenario is only the single largest tank?

The worst-case scenario and how much oil is spilled is set by federal law in [CFR 40 112.20](#).

Spill emergency response worst case drills are done every three years, is the Portland Fire Department included?

Yes, Portland Fire & Rescue comes to our spill drills as the local emergency responder. The drills also include other state, local, and federal agency representatives.

What about a scenario involving multiple failures? Not just practice, but is necessary equipment actually available?

Part of the spill drills is identifying where equipment and other resources would come from and if they're available on short notice. The necessary equipment for oil spill response is available in several ways and DEQ requires facilities to prove they can procure equipment from a variety of sources during an exercise. All equipment available in the Pacific Northwest is listed in the [Worldwide Response Resource List](#).

What are the standards that a company must meet in a worst case drill in order to pass it successfully?

Over a three-year period, each facility must prove they can accomplish [National Preparedness for Response Exercise Program](#), a national standard administered by the U.S. Coast Guard and EPA, with assistance from DEQ. Additionally, DEQ requires facilities to prove they are complying with their Oil Spill Contingency Plan, that they can follow the [Northwest Area Contingency Plan](#), and can successfully integrate their company into the Incident Command System under the National Incident Management System.

Liability questions

DEQ received the following questions about Zenith's insurance:

- **Are earthquakes excluded because it is an "Act of God"?**
An "Act of God" does not exclude a responsible party from being responsible for paying for cleanup activities if a spill were to occur.
- **Does the company's insurance have "Act of God" escape clauses? We have all seen this done in other disasters.**
- **Is Zenith's insurance for a single tank event?**

Any question about Zenith's insurance coverage and related policies is a question for Zenith and the issuer of their insurance policy. However, Zenith would be financially responsible for cleanup activities if a spill were to occur regardless of the cause.

Who would be responsible for the costs if there was a spill or accident of the RR cars that we have seen a huge increase in stored on the tracks, including ones stored adjacent to the LNG tank at GASCO, where an accident of a tanker truck carrying diesel burned to the ground? Luckily, the RR car between the tanker truck and the LNG tank was not very volatile, which is not the case with the Zenith trains stored on the track, which are volatile. Would that be Zenith or the RR liability issue? Does DEQ have any control of such an accident should it occur?

Exactly who is liable could depend on where the spill happens and whether it comes from a train or a tank. No matter who the responsible party is, DEQ would be engaged in response to the spill.

Much of the regulatory language is specific to fuels that are purchased and sold. Zenith is in the business of storage and transport and does not own the fuels. What regulatory language is in place to create safeguards in the case of accidents, spills, and explosions for fuels that are being transported (off site) or stored (on site)?

[Oregon Revised Statute 468b.300](#) defines "Responsible Party" the same as under the Oil Spill Prevention Act of 1990: "Whoever owns or has control over the oil" which would be Zenith if the spill happened there.

The specific language in Oil Spill Prevention Act of 1990 is: "In the case of an onshore facility (other than a pipeline), any person owning or operating the facility, except a Federal agency, State, municipality, commission, or political subdivision of a State, or any interstate body, that as the owner transfers possession and right to use the property to another person by lease, assignment, or permit."

Spills and earthquakes questions

What assessments will be required to ensure that the aging above-ground storage tanks will meet safety standards for storing "renewable" naphtha?

Zenith must comply with the VOC Liquid Storage Reasonably Available Control Technology (RACT) requirements in [OAR 340-232-0150](#) when storing liquids with true vapor pressure greater than 1.52 psia, which includes renewable naphtha. The RACT requirements include tank monitoring and inspections to ensure that the tanks are adequately controlling VOC emissions.

Since the same aging tanks will be used to store “renewable” naphtha on a liquefaction zone, what measures is DEQ taking to prevent catastrophic impacts from Zenith’s operations in the impending earthquake?

The tanks will still be required to conduct safety in service inspections as per API 650. Zenith like all other facilities under the rule will submit identified seismic vulnerabilities and those vulnerabilities will have to be mitigated according to their submitted Risk Mitigation Implementation Plan, which must be submitted to DEQ for evaluation and approval.

Are there requirements for spill plans in the event of an earthquake that encompass the entire Zenith facility or are plans for single event disasters?

Spill plans are in the event of a spill regardless of the cause or extent.

What is Zenith’s responsibility for the Cascadia earthquake spill regarding the so-called renewable fuels they are theoretically switching to?

Their responsibility does not change due to a change to renewable fuels.

How do you mitigate after a major seismic event?

Mitigations are in accordance with the identified spill plan, and anything further will fall under the [National Contingency Plan](#). A more focused approach will be outlined in the [Area Contingency Plan](#) as well as the Facility Response Plan.

If the seismic spill is too big or Zenith is unable to contain it, who is responsible for paying for the environmental damage caused if Zenith doesn't have the resources to pay for the damage or clean up?

In the event that any responsible party cannot commit the resources for cleanup, the [Oil Spill Liability Trust Fund](#) will be activated to ensure cleanup is conducted and completed.

Please describe "mitigation," particularly after a catastrophic event?

Within the context of the [Fuel Tank Seismic Stability program](#), mitigation means steps you take to minimize risk.

Can you outline some of the likely mitigations that would be required after the report? Some examples of examples of possible mitigations?

DEQ’s Fuel Tank Seismic Stability Program requires all facilities to submit seismic vulnerability assessments and then plans to mitigate risk. [See Zenith’s status in this program and read their seismic vulnerability assessment.](#)

DEQ cannot speculate about what mitigation will be necessary for Zenith. Mitigation for oil storage facilities in general can include a variety of options ranging from supporting containment of oil that spills from the tank, to retrofitting existing tanks, to potentially demolishing and rebuilding tanks.

Tanks questions

Can you tell us how many tanks in use are built after 1990? How many are before 1970? 1950?

All tank construction dates are included in the air quality application. A summary specific to the tanks authorized in the air quality permit is below.

- Total Tanks: 59
- Built After 1990: 4
- Built 1970-1990: 12
- Built 1950-1970: 18
- Built Before 1950: 25

There are 30 additional tanks not included in the air quality permit application that must be removed in accordance with the LUCS. The air quality permit prohibits use of those tanks.

Is there anything in place to protect us from Zenith vulnerable, aging tanks, including those built as far back as the 1940s, to store highly volatile products such as “renewable” naphtha?

Zenith must comply with the volatile organic compound liquid storage Reasonably Available Control Technology (RACT) requirements in OAR 340-232-0150 when storing liquids with true vapor pressure greater than 1.52 psia, which includes renewable naphtha. The RACT requirements include tank monitoring and inspections to ensure that the tanks are adequately controlling VOC emissions.

Zenith is also a part of DEQ’s new Fuel Tank Seismic Stability Program, which is designed to minimize seismic risk of these facilities, which could include decommissioning, upgrading and replacing tanks.

The air quality permit application meets the state’s environmental requirements. DEQ will continue to review Zenith’s reports, inspect the facility, and hold them accountable to their permit. Whether or not a specific type of facility can be located somewhere is up to the local land use agency.

Climate change

General questions

What data is available to show that this transition will result in a real-world reduction of harm in terms of a reduction in harmful emissions (actual not allowable) and threats from increased associated traffic?

A majority of VOC emissions from Zenith are based on the vapor pressure of the liquid being handled. The crude oil handled by Zenith has a relatively high vapor pressure that ranges from approximately 5.9 to 8.3 psia based on the temperature. As a reference, DEQ RACT rules require a control device to reduce VOC emissions from marine loading when the material handled has a vapor pressure equal to or greater than 4 psia. Zenith plans to increase handling of renewable diesel, which has a vapor pressure less than 0.011 psia. Zenith proposes to begin handling renewable naphtha with a vapor pressure ranging from approximately 1.6 to 2.7. The handling of lower vapor pressure products results in less volatilization of the products which results in lower level of VOC emissions.

DEQ’s air quality program regulates sources based on their potential to emit through the plant site emission limits program. The proposed emission limits represent significant decreases in the potential for Zenith to emit pollutants.

Given the state’s goals for decreasing greenhouse gas emissions, what is the obligation of DEQ as a state agency to ensure permits do not result in an increase in those emissions? (In terms of real-world, not allowable emissions).

The state's goal does not override statute. DEQ's air quality rules (OAR 340-200 through 272) do not require mandatory GHG reductions unless the applicable facility is subject to federal new source review for greenhouse gases and a separate criteria pollutant. Zenith is obtaining an air quality permit for a [synthetic minor source](#) and is therefore not subject to federal (or state) new source review provisions.

However, the companies responsible for bringing fuels into the state, would be subject to the Climate Protection Program if the [2024 rulemaking](#) is adopted by the Environmental Quality Commission, DEQ's governing body. Zenith is not directly regulated by this program because it stores the fuel, it isn't the actual supplier. The suppliers of the fuels Zenith holds and transloads for would be responsible for complying with the Climate Protection Program.

How is DEQ addressing the fact, as documented by many scientists, that fossil fuels, and many other emissions have caused an irreversible collapse of the earth's ability to sustain itself?

DEQ may only regulate within its existing authority. DEQ regulates air quality more comprehensively than many other states that do not have programs similar to Cleaner Air Oregon or the Climate Protection Program. Additional authority to regulate emissions would come from the legislature.

Environmental justice

General questions

Leah Feldon, director of DEQ, stated, "Tribes are obviously sovereign nations and so the work that we do to better Oregon's environment is done in partnership. It's a government-to-government partnership." What consultation has DEQ done about Zenith with local Tribes? If none, why not?

DEQ connects with the federally recognized Tribes that have interest in the area the Zenith facility is located on topics of interest. DEQ will share the updated information with the Tribes when the draft permit is ready for review.

According to DEQ director Leah Feldon, "environmental conditions have the potential to determine a person's quality of life through their health and development and day-to-day living experience." What data do you have to support that an increase in rail traffic will not disproportionately affect communities living near the CEI Hub and near rail lines?

Director Feldon's point is exactly why it's so important to implement the most up-to-date regulations. Zenith's air quality permit needs to be updated to include more protective regulations that are now on DEQ's books to protect human health and the environment. DEQ does not have authority to decide where rail cars or facilities go. DEQ's role is to regulate those facilities within our authority to protect human health and the environment. Any expansion of DEQ's authority would need to be provided by the state legislature.

According to DEQ director Leah Feldon, environmental justice is "protecting communities that have been underserved and overburdened with pollution." What precautionary measures will the DEQ take to prepare and inform communities living near the rail lines?

DEQ understands the concerns communities living near rail lines may have about the contents of Zenith's rail traffic and from other sources. DEQ is committed to protecting underserved and overburdened communities. DEQ recently received a \$200 million Climate Pollution Reduction Grant for this type of work. However, all of

this work must be within our regulatory authority and, as stated above, DEQ does not have regulatory authority over rail traffic.

As you attempt to address community outreach, what measures are you taking to conduct outreach to individuals and communities that do not have access to digital forums like this one (i.e. community forums in person)?

DEQ works with community and advocacy organizations to get recommendations for how to best run our public processes. We are happy to host meetings in person or virtual according to what is most accessible to different communities throughout the state. We also welcome and appreciate feedback from interested community members and organizations to improve our public outreach practices.

Traffic and train regulations

Considering emissions questions

Are the emissions generated by the traffic to and from the facility (trains, trucks, barges) taken into account for the air contaminant discharge permit?

No. DEQ's stationary source permitting program looks at emissions generated from a stationary source. This includes emissions from handling and storage of materials but does not include production, travel to/from Zenith, or the end use. DEQ's ambient air monitoring network collects samples from the air to evaluate whether the area is in compliance with federal air quality standards.

Is it true that the emissions generated by traffic to and from the facility (trucks, trains, barges) at Zenith are not regulated by the DEQ permit? If so, how are these discharge air contaminants regulated? Why are they not taken into account when issuing this permit?

DEQ's stationary source permitting program looks at emissions generated from a stationary source. This includes emissions from handling and storage of materials but does not include production, travel to/from Zenith, or the end use. Mobile source emissions (e.g., on-road vehicles, barges, trains, etc.) are generally regulated at the manufacturer level by EPA.

Trains and spills questions

What is the mechanism for Zenith's liability in the event of an accident, spill, or explosion of a train bound for their facility?

An oil or hazardous materials spill would still be addressed by DEQ's Emergency Response Program. As the fuel carrier, the railroad would be responsible for this spill.

Is "renewable" naphtha going to be transported by train? If so, what increased risks are there given its volatility?

The off-site production, transport to and from Zenith, and end use of materials are not factored into air quality permit determinations. This is a question for Zenith.

What considerations have been given to the effects of increased train traffic on things like first responder access?

In general, DEQ does not have authority to regulate trains or railroad activities. Trains are regulated by the United States Department of Transportation Federal Railroad Administration and the Oregon Department of

Transportation Rail Safety Division. Planning for local first responders would be a local land use consideration in coordination with those first responder agencies.

What is the plan to ensure there's not a repeat of East Palestine, Ohio in Oregon?

DEQ does not have regulatory authority over rail traffic. DEQ has its Emergency Response Program that can respond to oil and hazardous material spills. Under the Emergency Response Program, DEQ also has a [High Hazard Rail program](#) in which DEQ can require certain railroads to create spill response plan. This program started in 2021 and is working with the two applicable railroads, BNSF and UPRR, to develop their spill response plans. These railroads will also have to do regular drills.

Land use

Land use compatibility statement questions

Given that Zenith obtained a LUCS in part due to illegal lobbying, will DEQ use its authority to evaluate the validity of the LUCS?

The [City of Portland issued the Land Use Compatibility Statement](#) on Oct. 22, 2023. The LUCS the City of Portland issued is both a final decision and describes the activity that DEQ is reviewing in the air permit application, thus was accepted by DEQ. DEQ's role in evaluating the LUCS is to ensure what is proposed to the local land use agency matches what is in our permit applications. DEQ will not do a separate review of a LUCS.

The following are questions the City of Portland would need to answer about the LUCS:

- **Is DEQ aware of whether the LUCS findings were made with or without the knowledge of "renewable" naphtha, given there is no mention of "renewable" naphtha in the LUCS?**
- **Can DEQ answer whether the findings in the LUCS were made with or without the knowledge of "renewable" naphtha?**
- **Please explain why Zenith has two separate LUCS agreements for the same property address.**
- **Is Zenith allowed to comingle infrastructure that is permitted under two separate LUCS agreements?**
- **When are we going to talk about Zenith's illegal negotiations with Portland City Council to get approval for continued operations?**

Questions about the LUCS associated with the Zenith facility should be directed to the City of Portland. More information about the LUCS timeline is available on DEQ's [Zenith web page](#).

Many tanks are very old. Will Zenith have to decommission them? Or replace them?

The City of Portland LUCS requires Zenith to take 30 tanks out of service, and the air quality permit prohibits using of those tanks. Zenith may decommission, upgrade, or replace tanks as part of its compliance with the Fuel Tank Seismic Stability Program. Old tanks must either be upgraded or replaced for continued use; however, no net new tanks are allowed.

Can you tell us how many tanks are taken out of service?

The City of Portland LUCS requires Zenith to take 30 tanks out of service.

Does the ACDP application prohibit Zenith from handling tar sands or could Zenith potentially handle tar sands under the proposed air permit?

Zenith can continue to handle crude oil until Oct. 3, 2027. As of that date, the LUCS and current draft of the air quality permit prohibit the handling and storage of crude oil. This includes tar sands.

Infrastructure and expansion questions

Last January the city approved Zenith expansion with three new pipelines under Front Ave. Zenith said it will strictly use these new pipelines to transport renewable fuels. Zenith plans to phase out crude oil storage by 2027. How is DEQ tracking this transition?

The air quality permit will require notification for when Zenith no longer handles crude oil and will require Zenith to provide the type and quantity of all products handled in an annual report that must be submitted to DEQ. Additionally, the air quality permit limits the products allowed to be handled by these pipes to renewable fuels and non-fuel products.

If Zenith is still going to be handling fossil fuels, will increase the throughput significantly, and is adding the use of an additional dock, new pipelines, and other infrastructure, can you explain how this is not an expansion of a fossil fuel facility?

The changes at the Zenith facility, including physical changes and increased intensity of the fuel terminal use, were the reasons that DEQ required a new LUCS in 2020. The City of Portland ultimately issued that LUCS in October 2022. DEQ's air quality program regulates sources based on their potential to emit through the plant site emissions limits program. The proposed emissions limits represent significant decreases in the potential for Zenith to emit pollutants.

Does it make sense to have this expansion in an area that's already been identified as having a grave risk for petroleum spills in the event of an earthquake?

Whether or not a facility is suited to be in a particular location is up to the local land use agency. In this case, that is the City of Portland.

DEQ's [Fuel Tank Seismic Stability program](#) requires Zenith to identify seismic vulnerabilities, submit a plan to address those vulnerabilities, and minimize risk of a spill during a catastrophic event. These plans are subject to DEQ's evaluation and approval.

DEQ received the following questions about the use of the McCall dock:

- **Is Zenith currently utilizing MLOAD-M (McCall dock) or is that something that is being proposed as an additional future use?**
- **If Zenith is currently using the McCall dock, is this a violation since it is not covered in the expired Title V permit?**
- **How is Zenith transporting the throughput to the McCall dock? Zenith has pipelines to connect to the McCall Dock that have existed since the 1940s.**
- **Is Zenith using any pipes under Front Ave.? If so, are those pipes permitted and safe to use for the products being transported, or has Zenith started using old pipes under Front Ave. without a permit?**
- **In terms of load-out docks, is the McCall dock a new use under the new ACDP permit?**
- **Which products (and in what quantity) are Zenith handling through the McCall dock?**
- **Did DEQ authorize Zenith's use of the McCall dock prior to Zenith initiating use of the dock?**

Zenith has used the McCall dock since April 2021 to handle diesel and renewable diesel. Zenith installed a flanged valve and a small amount of welded pipe so that it could start using the pipes and the McCall dock. Zenith uses pipes under Front Ave. to transfer products between marine vessels at the McCall and Chevron docks and the storage tanks. Actual volatile organic compound emissions from loading activities at the McCall Dock from April 2021 through December 2023 were approximately 0.06 tons (127 lbs).

DEQ issued a Warning Letter with Opportunity to Correct on March 5, 2024 for failure to notify DEQ and obtain approval prior to modifying the facility by connecting the pipes to enable marine loading at the McCall dock in April 2021.

DEQ's draft air quality permit is the first permit to include the McCall dock as an emissions unit. While this is considered a new emissions unit in the air quality permit, use of the McCall dock began in 2021 and was a known activity when the City issued the LUCS in 2022.

Deciding location of a facility questions

How is DEQ weighing the significant increase in threats of accidents, spills, explosions, and harmful emissions to communities all along the transportation routes that will be associated with the significant increase in throughput that Zenith is proposing?

Whether or not a facility is suited to be in a particular location is up to the local land use agency, which in this case is the City of Portland. DEQ's air quality rules consider emissions coming from this facility. Zenith provided an application and DEQ has proposed a permit that meets the state's environmental regulations.

What habitat protection measures are in place for the area?

DEQ does not have regulatory authority over habitat protection. Any regulations would likely be part of land use code under the City of Portland.

Proximity to a Superfund site

General questions

Are there any regulations regarding construction on a Superfund site? Extra inspections?

The [Portland Harbor Superfund Site](#) is the sediment in the Willamette River. Construction at Zenith would not be considered in the Superfund site unless that construction was in the water.

Are there any regulations regarding moving highly volatile materials into a Superfund site?

The work happening at the Zenith facility is not in the Superfund site since it does not include any in-water construction.

Does this project include any in-water activities for construction or upgrades?

No part of the air quality permit application includes in-water construction. Loading and unloading of product from marine vessels are the only processes that occur near the water.

Are there any regulations about the quantity of industrial tankers that can travel through the superfund sites and the Columbia Estuary? Monthly limitations or regulations regarding this?

No. The Army Corps of Engineers projects these capacities for an adequate control depth to safely traverse waterways in the U.S.

What limitations exist in terms of the quantity of marine vessels allowed to travel through sensitive marine ecosystems (Superfund site, estuary)?

DEQ does not have the authority to regulate marine vessel transportation.

Oil market and use of oil

Future or suitability of the market questions

DEQ director, Leah Feldon, recently stated that DEQ is "very focused on our internal processes for permitting excellence and enforcement excellence." What evidence do you have that Zenith has any contractual agreements to support this proposal?

This question is best directed to Zenith as it pertains to Zenith's procedures to ensure compliance. DEQ will continue to hold Zenith accountable to the environmental regulations it's subject to in our permitting, inspection, and enforcement processes.

What evidence do you have that the market will support this proposal?

DEQ does not evaluate a source's business decisions as part of air quality permitting. This question is for Zenith as it pertains to Zenith's business decision making.

Given that the market will likely dictate the materials Zenith handles in the future, what safeguards are in place to ensure that Zenith will not increase fossil fuel handling (other than crude oil)?

Air quality permits regulate pollutant emissions from a source, and the proposed emission limits in this draft permit represents significant decreases in the potential for Zenith to emit pollutants. While the LUCS prohibits new fossil fuel infrastructure, there is nothing to prevent Zenith from increasing fossil fuel throughput from existing infrastructure on site as long as Zenith complies with all permit requirements.

DEQ would become aware of increased fossil fuel (of any type) handling when reviewing annual reports. The proposed air quality permit requires Zenith to include the type and quantity of all products handled. Any change in materials going through the facility that increases emissions above the permit limit would be a violation, and DEQ would hold Zenith accountable for this violation.

Contacts

Please reach out to the following individuals if you have questions about their role in regulating Zenith:

- **Air quality permit:** [David Graiver](#), Air Quality Permit Writer
- **Fuel Tank Seismic Stability Program:** [William \(Ian\) Johnson](#), Fuel Tank Seismic Stability Inspector
- **Emergency Response Program, spill drills:** [Scott Smith](#), Emergency Response Planner
- **Media:** [Michael Loch](#), DEQ Northwest Region Communications

If you have questions about the land use compatibility statement or anything related to Zenith being allowed to operate in its current location, please contact the City of Portland's Bureau of Development Services at 503-823-7300.

Non-discrimination statement

DEQ does not discriminate on the basis of race, color, national origin, disability, age, sex, religion, sexual

orientation, gender identity, or marital status in the administration of its programs and activities. Visit DEQ's [Civil Rights and Environmental Justice page](#).