DEQ Information Meeting

Zenith Energy Terminal

Zoom Webinar | April 17, 2024

State of Oregon
DEQ Department of Environmental Quality

Using Zoom Webinar

- Hear the audio either through your computer or by calling in by phone with the phone number provided upon registration.
- Note that you will not be able to speak unless the host enables your audio and then you unmute.

Asking a question

- You should see the following along the bottom of your screen.

- To ask a question: type it into the Q&A or raise your hand and the host will un-mute you. (*9 if you're on the phone)
- Use chat if you're having technical difficulties.

Purpose of today's meeting

Why are we here

- Provide information about the ways DEQ regulates Zenith
- Answer questions
- Share next steps

As always, please speak for yourself and be respectful of others.

You will hear from these DEQ programs

- Spill Contingency Planning
- Fuel Tank Seismic Stability
- Air Quality Permitting

You will have the opportunity to ask questions after each program's presentation as well as ask questions during the overall Q&A portion of tonight's meeting after presentations conclude.

Spill Contingency Planning

Scott Smith, Emergency Response Planner

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What is Spill Contingency Planning?

- What does DEQ require from Zenith?
  - Submit an Oil Spill Contingency Plan every five years.
  - Two Equipment Deployment Drills per year.
  - One annual tabletop exercise per year.

Oil Spill Contingency Plans

- Key elements in a spill response plan
  - Immediate notifications of a spill to government agencies required.
  - Training and preparation for spills through drill program.
  - Air monitoring during emergencies for responder and community safety.
  - Deployment of boom, access to oil spill cleanup equipment.
  - Wildlife response capability.

DEQ Emergency Response Program

- What does DEQ do if there is a spill
  - Acts as State on Scene Coordinator: primary agency for oil spill response.
  - Coordinates with Zenith, plus other federal, state and local agencies.
  - Ensures Zenith follows the Northwest Area Contingency Plan.
  - “Rapid, aggressive and coordinated response.”

Spill drills

- Two exercises/year
- One tabletop/year
- One worst case every three years
  - Last done in October 2022

Questions?

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Fuel Tank Seismic Stability

William Ian Johnson, Fuel Tank Seismic Stability Inspector

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Fuel Tank Seismic Stability Program

- Established in September 2023
- Applies to large capacity bulk fuels terminals in Columbia, Lane and Multnomah counties.
- Must minimize risk of damage or spills from a Cascadia-level earthquake.

Facilities

High-Capacity Fuel Storage Facilities	County
Cascade General Inc. (Vigor Shipyard)	Multnomah
McCall Oil & Chemical Corp	Multnomah
Zenith Terminals	**Multnomah**
Phillips 66	Multnomah
Chevron USA Inc.	Multnomah
Shell Portland Distribution Terminal	Multnomah
Kinder Morgan Liquids Term LLC	Multnomah
Northwest Natural Gas Co	Multnomah
Pacific Terminal Services Inc.	Multnomah
Nu-star Portland Terminal	Multnomah
Sea-Port Midstream Partners	Multnomah
Owens Corning Roofing and Asphalt LLC	Multnomah
PDX Fuel LLC	Multnomah
SFPP LP (Kinder Morgan Eugene)	Lane
PGE	Columbia
Columbia Pacific Bio-Refinery	Columbia

Seismic Vulnerability Assessment and Risk Mitigation Implementation Plan

- Seismic Vulnerability Assessment:
  - Includes geotechnical, structural and safety assessments.
  - Due **June 1, 2024**.
- Risk Mitigation Implementation Plan:
  - Due **180 days** after DEQ approves the Seismic Vulnerability Assessment.
  - Propose risk mitigation measures to address vulnerabilities.
  - Outline one-, three-, and five-year mitigation actions.
- All actions must be implemented within 10 years of approval.

Questions?

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Air Quality Permit

David Graiver, Air Quality Permit Writer, Northwest Region

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Zenith Energy Terminal Location

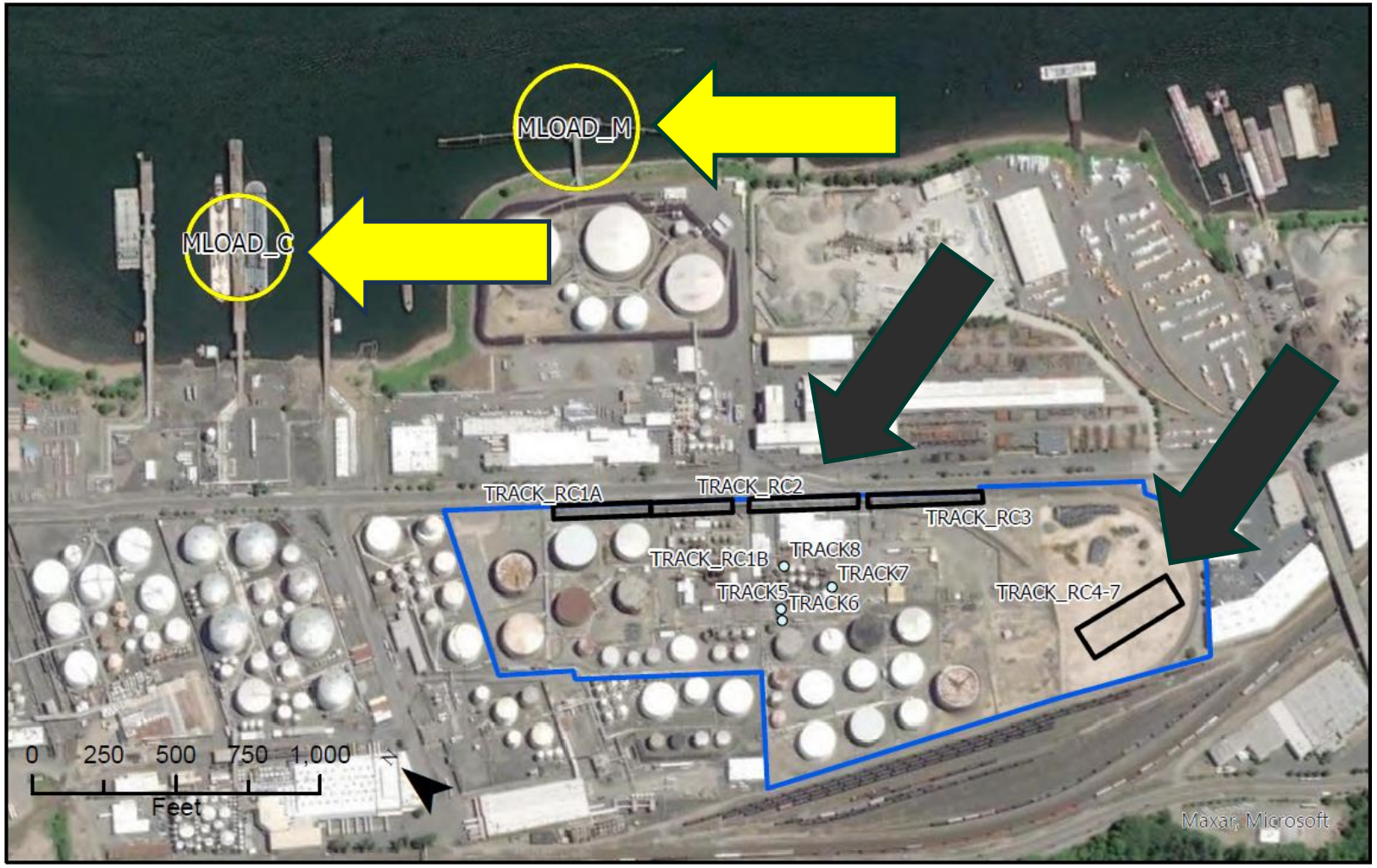
What is an Air Contaminant Discharge Permit (ACDP)?

- Regulate stationary source emissions
  - Criteria pollutants
  - Hazardous air pollutants
  - Toxic air contaminants
- Outside the scope of an ACDP
  - Mobile sources
  - Location and land use
  - Off-site production and end use of products

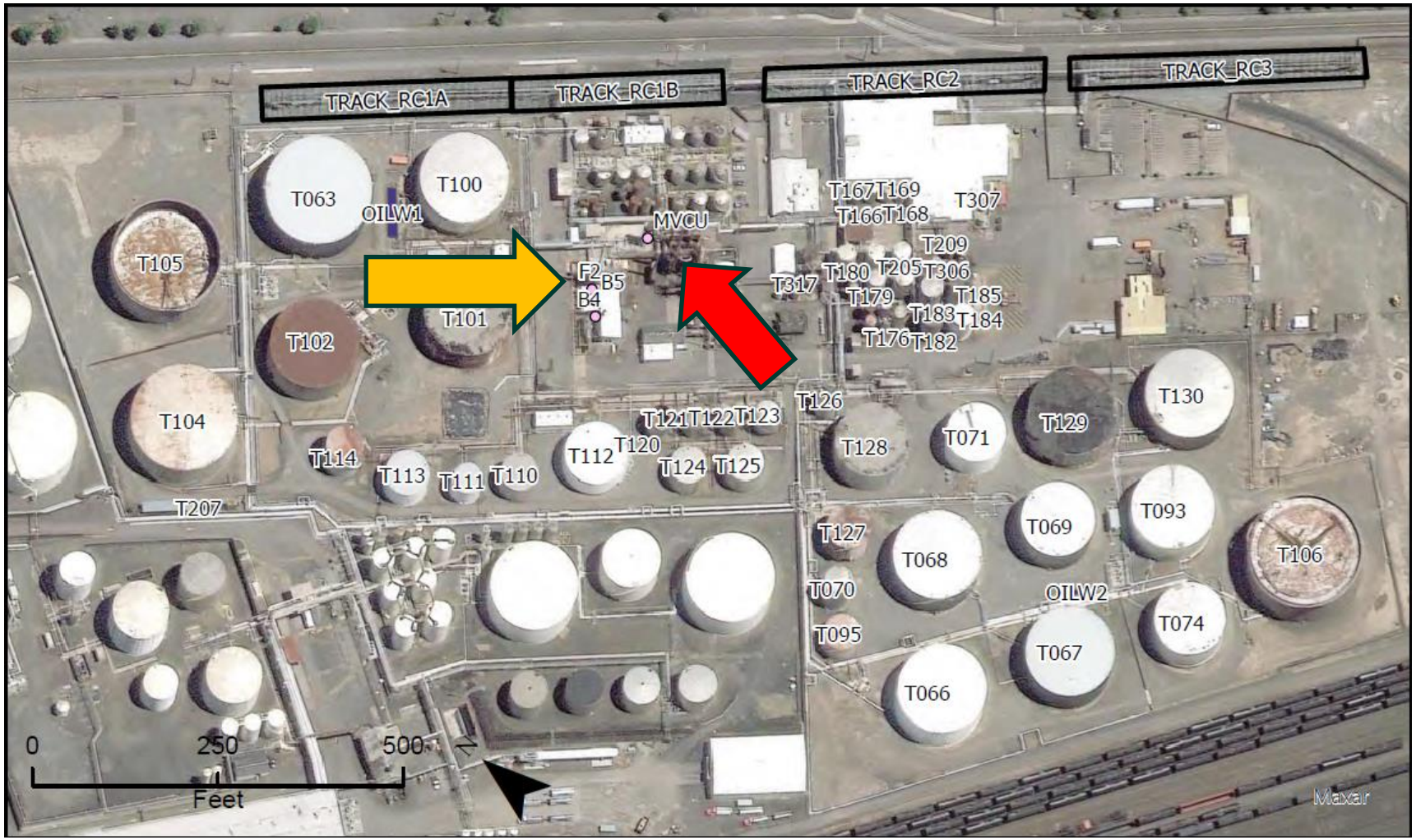
Zenith's Air Quality Permitting Process

1. Air quality permit application – **Submitted**
2. Public information meeting – **Today's meeting**
3. Public comment period begins – **Later this spring**
   - Announced via DEQ public notice
   - Draft air quality permit published
4. Public hearing – **Announced with public notice**
5. Public comment period ends – **Minimum 35 days**
6. Public comments review and response – **After comment period**
7. DEQ air quality permit decision – **Following comment review**

Zenith Emissions Units



Zenith Emissions Units



Additional Zenith Emissions Units

- Product receipt and loading
  - Pipeline
- Product storage
  - Fugitive leaks
- Combustion units
  - Boilers/heaters
  - Emergency engines

Changes to the Air Quality Permit

New equipment

- Vapor combustion unit
- Loading activities
- Emergency engines

Oregon regulation changes

- 2015: Particulate matter emissions and opacity limits
- 2022: Site specific emission limits
- Fine particulate matter ($PM_{2.5}$) and greenhouse gases as regulated pollutants

Federal regulation changes

- Engine rules: NSPS IIII & NESHAP ZZZZ
- Gasoline distribution: NESHAP BBBBBB

Air Pollutants

Organic liquid storage and loadout

- Volatile organic compounds
- Hazardous air pollutants

Combustion units

- Particulate matter
- Oxides of nitrogen
- Carbon monoxide
- Sulfur dioxide
- Volatile organic compounds
- Greenhouse gases
- Hazardous air pollutants

Air Pollution Controls

Organic liquid storage and loadout

- Leak detection and repair
- Floating roofs
- Vapor combustion unit

Fugitive emissions

- Leak detection and repair
- Best management practices

Combustion units

- Good combustion practices
- Follow applicable requirements

Changes in Emissions

Plant site emission limits

- Volatile organic compounds reduced to 39 tons per year
- Site specific limits
- New pollutants:
  - Fine particulate matter ($PM_{2.5}$)
  - Greenhouse gases

Emission calculation updates

- Updated algorithms for tank emissions
- Source test data (VCU)
- Different materials handled
- Fugitive leaks

Changes in Emissions

Pollutant	Plant Site Emission Limits (PSEL)		
	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
Total particulate matter	14	--	(14)
Coarse particulate matter	14	--	(14)
Fine particulate matter	--	--	--
Carbon monoxide	99	24	(75)
Oxides of nitrogen	77	26	(51)
Sulfur dioxide	81	--	(81)
Volatile organic compounds	179	39	(140)
Greenhouse gases	--	29,800	29,800
Hydrogen sulfide	9	--	(9)

Other Permit Conditions

- Performance testing
- Emission standards and performance standards
- Plant site emission limits
- Compliance demonstration formulas
- Monitoring and recording requirements
- Reporting and notification requirements

Cleaner Air Oregon

- Health risk-based air toxics regulatory program
- Existing facility
- Classified as a Group 3 facility
- Call in date to the program will depend on:
  - Staffing and resource logistics,
  - Updated triennial emission inventory, and/or
  - Additional new information

Questions?

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What's next

- Public notice and hearing later this spring for draft air quality permit
- Can provide comment verbally or in writing
  - Verbal and written comments hold equal weight.
- Sign up for updates through GovDelivery

Thank you!

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Zenith's Actual Emissions

	PSEL	2019	2020	2021	2022	2023
Particulate matter	14	0.05	0.05	0.08	0.09	0.10
Sulfur dioxide	81	NR	0.03	0.17	0.17	0.19
Oxides of nitrogen	77	1.90	1.94	3.39	3.44	3.89
Volatile organic compounds	179	20.5	25.2	33.0	49.5	43.1
Carbon monoxide	99	1.60	1.63	13.9	5.45	6.09
Greenhouse gases	N/A	6,000	5,747	4,445	4,515	5,103

All emissions in tons per year

PSEL = Plant Site Emission Limit

NR = Not Reported