Intel Draft Air Permit

Public Hearing

Feb. 15, 2024
Zoom meeting

Lauren Wirtis | Oregon Department of Environmental Quality

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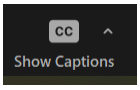

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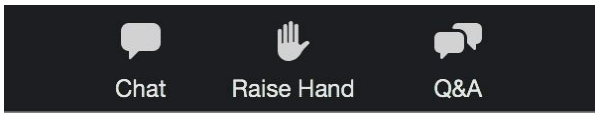

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3

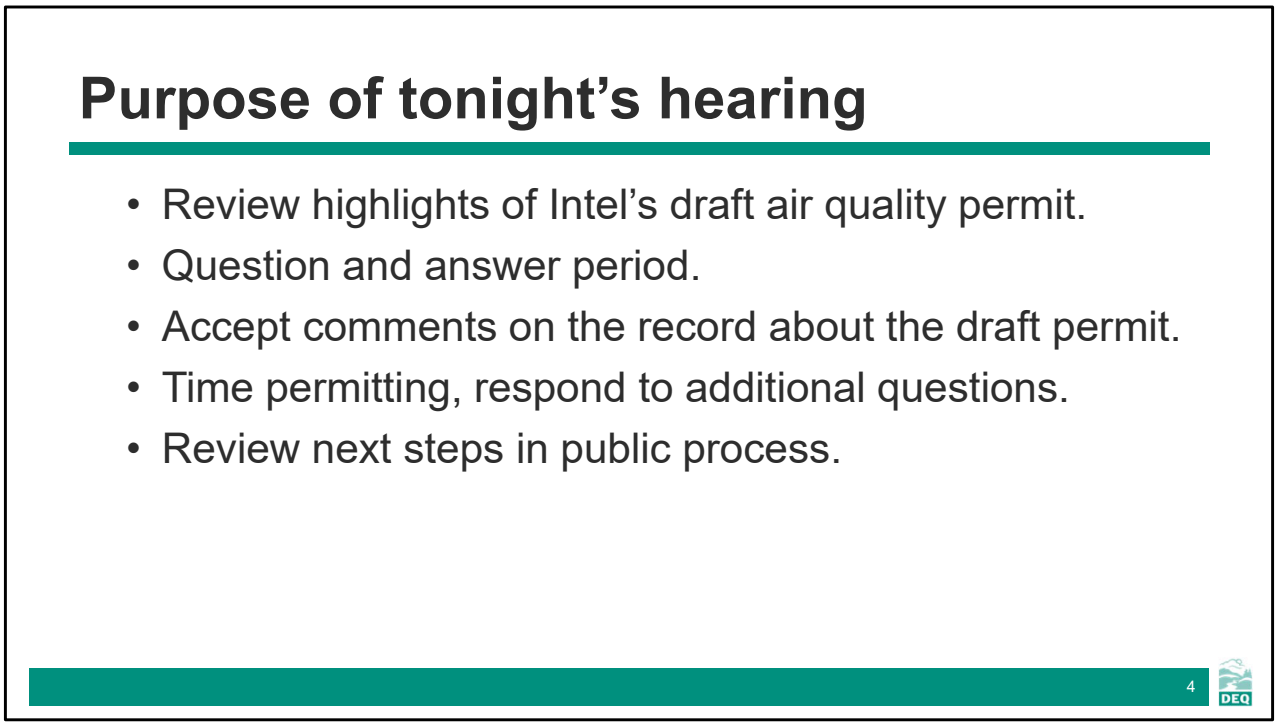
If you do have a question, you have a couple options. During the presentation, feel free to put your questions into the Q&A box at the bottom of the screen. That's the easiest way for us to keep track of questions. That way, if anyone is having technical difficulties, they can communicate about that in the chat.

You can also raise your hand at the end of the presentation, and I will un-mute you. If you are joining by phone and you have a question, please press *9 to raise your hand and I will un-mute you.

We have NUMBER of people here tonight. We know many of you are here to provide public comment. With that in mind, we may limit the time for initial questions initially, and move to public comment so as not to keep everyone too late. Today you'll hear from DEQ staff about the draft air quality permit. Intel staff are also present to hear your comments.

I'd now like to take a moment to recognize if there are any Tribal representatives here

tonight – please raise your hand and I'll unmute you so you can introduce yourself.
[PAUSE]
I'd also like to recognize any elected officials here tonight – please raise your hand and I'll unmute you so you can introduce yourself.
[PAUSE]
I'm going to now turn over the mic to Nina DeConcini, DEQ's Project Manager for this permitting action. Nina will provide an introduction of the process for tonight.



Nina

Welcome, and thank you for taking the time to be with us. As Lauren mentioned, my name is Nina DeConcini and I'm DEQ's project manager for this proposed permitting modification. It's my pleasure to be here with you.

This evening, we are conducting a formal public hearing to invite verbal comments on the Intel AQ draft permit. I will be the hearing officer.

Now, some specifics about this evening's public information meeting:

- Review highlights of Intel's draft air quality permit
- Question and answer period.
- Accept comment on the record about the draft permit
- Time permitting after public comment, respond to questions
- Review next steps in public process

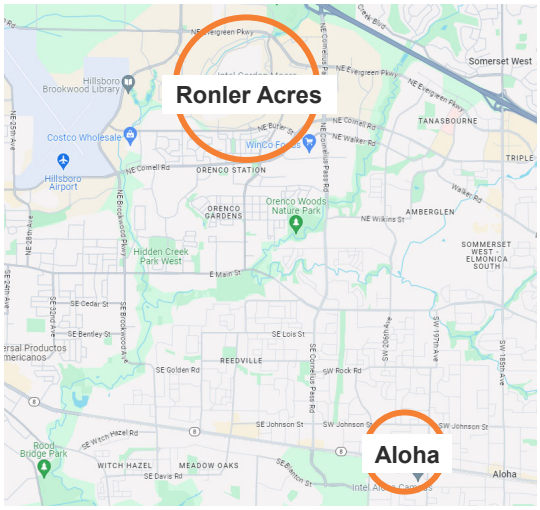
DEQ presenters

- Nina DeConcini, Project Manager
- George Davis, Air Quality Permit Writer
- Lauren Wirtis, Communications Manager

Public comment period

- Open now through 5 p.m. on March 1 nwraqpermits@deq.oregon.gov
- Go to ordeq.org/intel
- Verbal and written comments given equal weight
- DEQ can only consider comments about the air quality permit

Intel locations



7

DEQ

Nina

To provide a visual orientation of where the Intel facilities are located in Washington County, this aerial shot shows both the Ronler Acres and the Aloha campuses where this proposed permit modification would take place. In addition to electronic notifications to advertise this hearing, DEQ sent post cards to all residents and businesses within a 2-mile radius of both the Ronler and Aloha Intel sites. Over 36,000 postcards were sent on the second week of January.

Timeline recap

- July 7, 2023: Intel submits air quality permit application to DEQ
- Sept. 7, 2023: DEQ determines application to be complete
- Oct. 11, 2023: DEQ holds virtual public information meeting
- Jan. 10, 2024: DEQ issues public notice with draft air quality permit/comment period open

Here is a high-level recap of DEQ's path to tonight's hearing.

Draft Air Quality Permit Overview

George Davis, Air Quality Permit Writer

State of Oregon
DEQ Department of Environmental Quality

Now I would like to introduce George Davis, DEQ's air quality permit writer who will review key elements of the draft air quality permit for Intel.

What is the air quality permit for?

- Allows operation of pollutant-emitting facilities
- Allows construction of new/modified facilities and emissions increases
- Specifies standards and limits that must be met
- Specifies how to show compliance with standards and limits

10

George

In general, air quality permits are the way regulatory agencies like DEQ ensure that industrial and commercial facilities comply with state and national air pollution regulations.

Existing industrial and commercial facilities that emit air pollutants above certain levels are required to have a permit to operate. In addition, proposed new facilities or modifications that increase emissions at existing facilities are required to obtain a permit before the new or modified facilities can be constructed or operated.

The permit must have conditions that specify all applicable state and national air quality regulations, as well as conditions that specify how the permitted facility must show compliance with those regulations.

What is the air quality permit for? (cont'd)

- Proposed permit is required to approve Intel's proposed expansion and emissions increases.
- Will replace Intel's current air quality permit.
- Intel had to meet stringent requirements to get this permit

George

Intel is an existing industrial facility that is proposing to modify their facility and increase emissions. As noted on the previous slide, a permit is required to allow the modification and the associated emissions increases. A permit is also required to allow operation of the proposed modification. The proposed permit that we're meeting about tonight allows construction of the modified facilities and operation of both the existing and modified facilities.

Intel has an air quality permit now for operation of their existing facilities. The proposed permit will replace the current permit.

Most importantly, to qualify for this permit, Intel had to meet **stringent** requirements that are intended to protect air quality and public health, and to minimize the emissions increases. I'll talk a bit more about them in later slides.

Requested emission limits - 1

Pollutant	Requested Limit (ton/year)	Current Limit (ton/year)	New Source Review?
Total Particulate Matter (PM)	68	41	No
Coarse Particulate Matter (PM_{10})	62	35	Yes
Fine Particulate Matter ($PM_{2.5}$)	60	31	Yes
Oxides of Nitrogen (NOx)	413	197	Yes
Carbon Monoxide (CO)	598	229	Yes
Volatile Organic Compounds (VOC)	351	178	Yes
Sulfur Dioxide (SO2)	36	39	No
Greenhouse Gases (GHG, CO2e basis)	1,772,804	819,000	Yes
Fluorides	12.2	6.4	Yes

George

This slide and next show the pollutants regulated by the proposed permit. Pollutants are listed in the first column. The second column shows the new limits that are proposed, and the third column shows what the limits are in the current permit. The last column indicates whether New Source Review applies to each pollutant.

I'll explain more about New Source Review in a moment.

Requested emission limits - 2

Pollutant	Requested Limit (ton/year)	Current Limit (ton/year)	New Source Review?
Total Hazardous Air Pollutants (HAP)	24	24	No
Highest Individual HAP	9	9	No

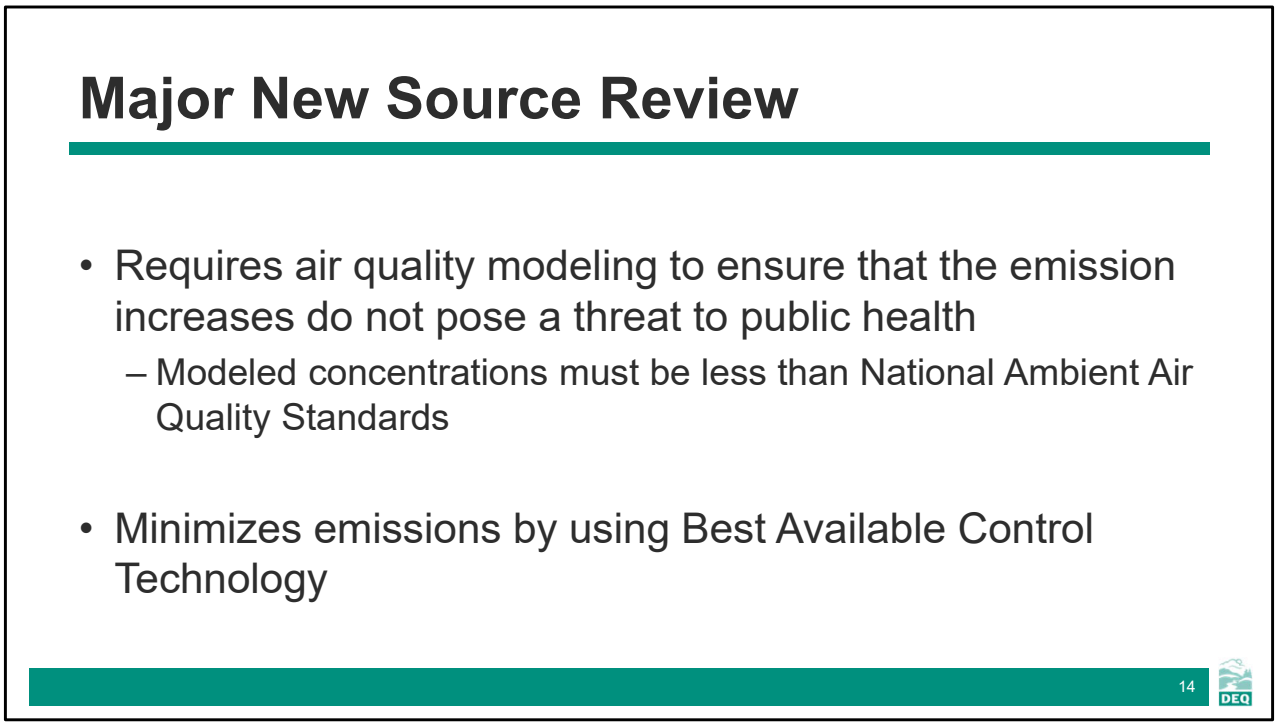
Hazardous air pollutant	Potential to Emit, ton/year
Hydrogen Fluoride	8.9
Hydrochloric Acid	7.7
Methanol	0.5
Acetonitrile	0.4
Phosphine	0.04
Carbonyl Sulfide	0.04
Chlorine	0.03

13

George

The upper table on this slide shows the remaining pollutants regulated by the proposed permit. The first item or pollutant listed refers to the sum or total emissions of Hazardous Air Pollutants (HAP) and sets a limit of 24 tons per year of all combined HAPs. The second item refers to the individual Hazardous Air Pollutant emitted at the highest levels and sets a limit of 9 tons per year on whatever HAP is emitted at the highest level. Under these limits, Intel is considered a Minor Source of Hazardous Air Pollutants.

The lower table lists the Hazardous Air Pollutants that are emitted by Intel at the highest levels, with Hydrogen Fluoride being the highest individual HAP.



George

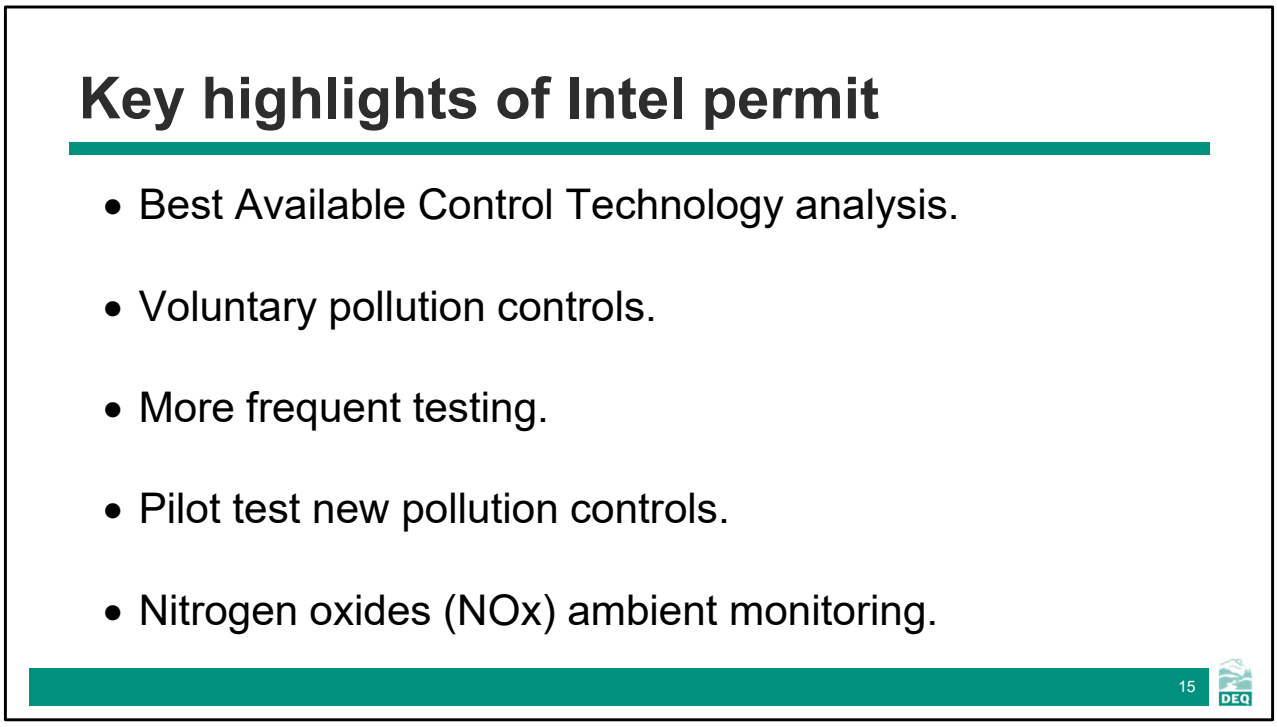
Earlier I mentioned that Intel had to meet **stringent** requirements to qualify for the permit we're discussing tonight. Those requirements are much more stringent than the requirements for the majority of air quality permits and are in a program called Major New Source Review, which is usually called Major NSR or just NSR for short.

Major New Source Review has two primary elements: the first element is an air quality modeling analysis that is intended to protect public health by ensuring that National Ambient Air Quality Standards will not be exceeded. These standards are set by the Environmental Protection Agency at levels that protect public health. Part of DEQ's job is to ensure that these standards are not exceeded when facilities increase emissions.

The second element is known as a Best Available Control Technology or BACT analysis. The purpose of this analysis is to minimize emissions by requiring the use of emissions controls or techniques that are identified in the BACT analysis.

Intel conducted the required modeling, and it was reviewed and analyzed by DEQ and

found to show that Intel's increased emissions would not exceed any air quality standards. However, the modeling shows that nitrogen oxides (NOx) emissions may result in levels that get close to the NOx standards. I'll address this in the next slide, as well as Best Available Control Technology.



George

This slide lists the key highlights of the proposed permit.

- **Best Available Control Technology analysis:** This analysis evaluated whether Intel could switch to different pollution controls to better control pollution, taking cost into account. DEQ's review of the BACT analysis found that Intel is already using pollution controls that meet BACT, and the same controls will be used on the proposed new facilities.

- **Voluntary pollution controls:** Certain emissions controls go beyond BACT requirements. Under New Source Review, DEQ can require controls that meet BACT, but can't require controls that exceed BACT requirements. However, Intel voluntarily installed two kinds of pollution controls that exceed BACT requirements on some of its equipment. First, catalytic diesel particulate filters are installed on some newer emergency generator engines and reduce the amount of particulate matter, carbon monoxide and volatile organic compounds emitted. Second, wet electrostatic precipitators are installed on some wet scrubber exhausts and reduce particulate matter emissions.

- **More frequent testing:** Intel has proposed increasing how often it tests emissions from production process emissions control devices. This includes testing of the rotor concentrator thermal oxidizers every two years instead of every five, and the wet scrubbers every year instead of every five.

- **Pilot test new pollution controls:** Intel is proposing to install and test a new NOx emissions reduction system that has not been tested before. If the test is successful, Intel may install it throughout its facilities. If unsuccessful, it will be abandoned. **Note, Intel had applied to run this test under a separate permit modification before the application for the proposed plant expansion project was submitted. For simplicity, DEQ is including the test and the expansion project in the same permitting process.**

- **Nitrogen oxides (NOx) ambient monitoring:** As I mentioned on the previous slide, the air quality modeling showed that ambient NOx concentrations might approach the ambient air quality standards for NOx. DEQ wants to be sure that Intel's emissions will not cause exceedance of these standards, so Intel will be required to install and operate an ambient monitoring system for NOx to confirm that Intel's emissions of NOx do not cause or contribute to an exceedance of an ambient air quality standard.

Ensuring Compliance

- Compliance with permit
- Compliance with National Ambient Air Quality Standards

George

The last thing I want to mention is how DEQ ensures compliance with permits and air quality standards.

Compliance with the permit

- Annual emissions reports
- Emissions testing
- Inspections, both announced and unannounced

George

There are three ways that DEQ ensures that facilities are complying with their permits.

1. Reporting. Intel is required to report emissions to DEQ on a regular basis. Intel monitors production, chemical usage and operation of emissions control systems, and calculates emissions based on that information. Intel must submit annual emissions reports, which DEQ reviews for compliance with permit limits.

In addition to reporting emissions, Intel must report proposed changes to their facilities or emissions control systems and must obtain approval from DEQ before the changes are made. These requirements will all continue in the proposed permit.

2. Testing. Intel must test various emissions sources periodically. DEQ staff attend some of these tests to ensure proper procedures are followed. Intel must submit reports with the emissions test results 45 to 60 days after each test and DEQ reviews the results. Emissions testing helps confirm that calculations do not underestimate emissions. Testing requirements have been updated and increased in the proposed

permit.

3. Inspections. DEQ conducts regular inspections of Intel's facilities. Inspections involve walking through facilities to see if there are any problems, but most importantly inspections involve reviewing the facility's recordkeeping and emissions calculations to **verify** that emissions are reported correctly. Inspections can be both announced and unannounced.

Compliance with air quality standards

- Modeling assures air quality and public health are protected.
- The permit requires approval of changes that might affect permit or modeling results.
- Inspections verify that no unapproved changes have occurred.
- This ensures modeling is valid and public health is protected.

George

As I mentioned earlier, Intel had to perform an air quality modeling analysis. This analysis showed that the proposed emissions increases would not cause the national air quality standards **(NAAQS)** to be exceeded. But the modeling is only done once; what's to prevent Intel from increasing emissions afterwards?

That's where the permit comes in. The permit has a condition that requires review and approval by DEQ of changes that might affect other permit conditions or the modeling results, such as emissions. Periodic inspections are conducted, and during inspections DEQ can verify that no unapproved changes have been made.

In effect, the requirement for review and approval of changes plus inspections ensures that the modeling results remain valid, which ensures that air quality and public health are still protected.

Compliance with air quality standards (cont'd)

- Measuring air quality
  - Ongoing: DEQ conducts area-wide monitoring of several pollutants
  - Proposed: Intel to monitor oxides of nitrogen (NOx) near Ronler Acres fence line

George

Ultimately, the purpose of air quality regulation is to protect public health by ensuring that Federal ambient air quality standards are not exceeded. The air quality permitting program is intended to help ensure that air quality standards are not exceeded, but the most direct way is to sample the ambient air and measure the levels of pollutants.

DEQ has been responsible for measuring air quality in Oregon for many years. Typically, DEQ measures area-wide air quality, in this case the air quality for the greater Portland area. This tells DEQ the status of air quality based on all sources of pollution – industrial facilities, traffic, small businesses and other sources.

For a few permits around the state, DEQ has required measuring ambient air quality near a particular industrial facility. This is done when there is concern that the facility's emissions might cause air quality to get close to a standard. As mentioned earlier, modeling shows that NOx concentrations might get close the NOx standards, so DEQ is requiring Intel to monitor for NOx levels at a location near the Ronler Acres fence line.

That ends my part of this introduction, I'll now hand it back to Nina.

Other regulatory requirements

- Cleaner Air Oregon
- Climate Protection Program

Nina

Intel is subject to requirements under the Cleaner Air Oregon program, DEQ's industrial air toxics permitting program, however, Intel was only required to submit an emissions inventory for the proposed permit modification. This provided DEQ with information on all additional emissions of toxic air contaminants. Intel will be required to complete a facility-wide risk assessment when DEQ formally “calls-in" the facility to the Cleaner Air Oregon program, which will be done according to the prioritization groupings for existing facilities. At this time DEQ anticipates Intel will be called in in early 2025.

Regarding the Climate Protection Program, DEQ will begin the process to reinstate the Climate Protection Program in the first quarter of 2024 following a December ruling from the Oregon Court of Appeals.

The court decided that DEQ did not fully comply with notice requirements during the rulemaking process for the program, thereby invalidating the final rules and the program. The court’s ruling did not impact the Environmental Quality Commission’s underlying authority to establish and enforce the Climate Protection Program. DEQ

will begin a rulemaking process shortly, which is expected to take 12 months.

Intel's facility is one of just over a dozen facilities across the state for which the "Best Available Emissions Reduction" component of the Climate Protection Program applies. Much like under the Cleaner Air Oregon process, DEQ will be working with Intel in the future to closely evaluate their facility's emissions (in this case greenhouse gas emissions, not toxics) and opportunities to reduce them after the rulemaking process is completed.

Clarifying questions

- Send through Q&A or raise hand
- Remember to press *9 to raise your hand if you're listening by phone
- We may move on to public comment to ensure everyone has time and circle back to questions.

21

Lauren to facilitate

Depending on the number of people who wish to comment on the record this evening, we will need to limit this portion of the meeting. Time permitting after the hearing portion, we may be able to respond to additional questions.

Public hearing

- Raise your hand to comment
- We'll call folks in the order their hand was raised
- Remember *9 if you're listening by phone
- State and spell your first and last name

What's next

DEQ will consider and respond to all comments received and may modify the proposed permit based on comments.

If a facility meets all legal requirements, DEQ will issue the facility's air quality permit, along with a response to comments.

Submit all comments by 5 p.m. on Friday, March 1

nwraqpermits@deq.oregon.gov

Submit comments

- **Email:** nwraqpermits@deq.oregon.gov
- **Mail:** Oregon DEQ, Northwest Region Air Quality Permit Coordinator, 700 NE Multnomah St., Ste. 600, Portland, OR 97232
- **Go to:** ordeq.org/intel
- **For questions:** nina.deconcini@deq.oregon.gov

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Thank you!

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DEQ Department of Environmental Quality