Introduction to Clean Air Act Permits (Oregon)

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Bios

David Graiver is an Environmental Engineer in DEQ's Northwest Region Air Quality Department with a main focus on permitting and inspecting complex minor and Title V sources. David has 10+ years' experience with air quality regulations in multiple states working on minor and major preconstruction and operating permits. Outside of working with air quality regulations, David enjoys spending time with his family, playing board games, and enjoying the outdoors.

Katie Eagleson is an Air Toxics Permitting Engineer working with the Cleaner Air Oregon Program. She started working at Oregon DEQ as an air quality permitter and inspector for DEQ's Western Region over a year ago and moved into her current engineering role shortly afterwards. Prior to her work with Oregon DEQ, Katie was a permit writer and source test coordinator for the Lane Regional Air Protection Agency for seven years. She is also a Returned Peace Corps Volunteer, serving as a Rural Health and Sanitation Specialist in Paraguay from 2013 to 2015.

Hillarie Sales is a Program Coordinator at Oregon DEQ for the Small Business Environmental Assistance Program and the Asbestos Program. With nearly a decade in the environmental field, Hillarie combines technical expertise with a passion for education and outreach. She supports small businesses through regulatory guidance and workshops, and her work empowers communities to better understand and advocate for their air quality.

Outline

- Commonly used vocabulary
- Reason for air permitting
- Types of air permits
- Permitting process
- Permit condition examples
- Permit compliance
- Air Quality Small Business Assistance
- Your DEQ Online

Vocabulary and Acronyms

- Emission Unit – EU
- Potential to Emit – PTE
- Significant Emission Rate – SER
- National Ambient Air Quality Standards – NAAQS
- New Source Performance Standards – NSPS
- Oregon Administrative Rule – OAR
- Pollution Control Device – PCD
- Air Contaminant Discharge Permit – ACDP
- Plant Site Emission Limit – PSEL

Why are Air Permits Important?

- **ACDP – Air Contaminant Discharge Permit**
- Protect the National Ambient Air Quality Standards
- Help sources demonstrate compliance with applicable state and federal regulations
  - Clarify applicability to state/federal regulations
  - Interpret regs and put them in easy-to-follow conditions
- Allow the public the opportunity to comment on activities that affect their environment
- Certain sources are required to obtain a permit by Oregon Rules

Air Permit – Do I need one?

Air Quality Permitting and Technical Assistance

Permitting Assistance

- Short-Term NAAQS Requirements
- Start with Your Regional Contact
- Multi-Agency Woody Biomass Utilization Permitting Guide
- Help Finding the Right Application
- Small Business Assistance
- Frequently Asked Questions

Permit Applications and Fees

- Basic and General ACDP
- Simple and Standard ACDP
- Title V
- CAO Permitting Requirements
- Getting started with Your DEQ Online

Air Permit – Do I need one (Oregon)?

- OAR 340-216-8010, Table 1
- List of Activities and Sources that require a Permit
  - Part A: Basic ACDP
  - Part B: General, Simple, or Standard ACDP
  - Part C: Standard ACDP
- Applicability based on Activity
- Part B, 84 and 85 based on air quality concerns or uncontrolled emissions

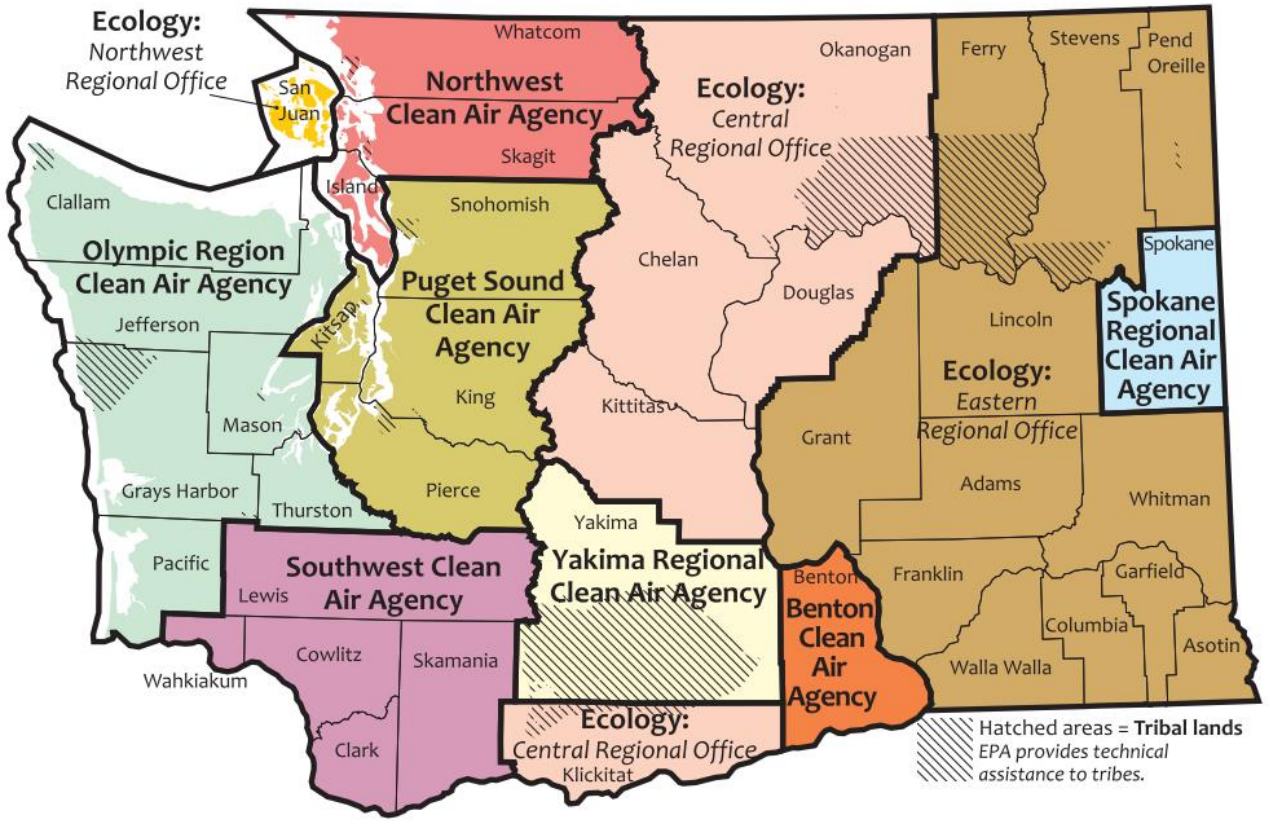
Air Permit – Do I need one?

Your DEQ Online (YDO)

- All permit applications and changes for air quality permits are now conducted in YDO. This includes:
  - Permit applications
  - Sale/transfer of a permit
  - Construction notifications
  - Permit modifications
  - Fee payments
  - Relocation notices, and
  - More!!
- Step-by-step applications in YDO walk through the applicability of your facility to current air quality permitting rules. There is a Your DEQ Online help page with tutorials and further guidance.

Air Permit – Do I need one (Washington)?

- Indian Country/Tribal Lands
  - EPA Region 10
- Benton Clean Air Agency
  - Benton County
- Olympic Region Clean Air Agency
  - Clallam, Grays Harbor, Jefferson, Mason, Pacific and Thurston Counties
- Southwest Clean Air Agency
  - Clark, Cowlitz, Lewis, Skamania and Wahkiakum Counties
- Puget Sound Clean Air Agency
  - King, Kitsap, Pierce and Snohomish Counties
- Northwest Clean Air Agency
  - Island, Skagit and Whatcom Counties
- Spokane Regional Clean Air Agency
  - Spokane County
- Yakima Regional Clean Air Agency
  - Yakima County
- Washington Department of Ecology



Who Can I Ask For Help?

- State/Local Regulatory Agency
  - Guidance Documents on Web Sites
  - Small Business Assistance
- Environmental Consultant
  - SWCAA has a listing online
  - Several at Today's Expo!
- Industry Group
  - Examples: NCASI, NEBC

Types of ACDPs

Basic ACDP

- Simplified annual reporting
- No plant emission limits
- Low fees
- Up to 10-year Permit Term

General ACDP

- Facility operations must be addressed by general permit conditions
- Plant Site Emission Limits
- Up to 10-year Permit Term

ACDP = Air Contaminant Discharge Permit

Types of ACDPs

Simple ACDP

- Minimal source complexity
- Plant Site Emission Limits
- Up to 10-year Permit Term

Standard ACDP

- Complex rule requirements
- Complex compliance determination methods
- Source wants to maintain netting basis
- Plant Site Emission Limits
- Up to 5-year Permit Term

ACDP = Air Contaminant Discharge Permit

Title V Permit

- Major source of emissions
  - Single criteria pollutant emissions >100 tons/year
  - Single HAP emissions > 10 tons/year
  - Combined HAP emissions > 25 tons/year
- Source specific (e.g., Air Curtain Incinerators)
- Can be VERY Complicated

HAP = Hazardous Air Pollutant

Who needs to get a Title V Permit?

A major source that has actual or potential emissions at or above the major source threshold for any "air pollutant."

- The major source threshold for any air pollutant is 100 tons/year (this is the "default value").
- Lower thresholds apply in non-attainment areas (but only for the pollutant(s) that are in non-attainment).
- Major source thresholds for "hazardous air pollutants" (HAP) are 10 tons/year for a single HAP or 25 tons/year for any combination of HAP.

Non-major Sources subject to National Emission Standards for Hazardous Air Pollutants (NESHAP)

- Applies to certain listed sources, such as:
  - Hazardous waste combustors
  - Portland cement manufacturers
  - Primary copper smelting

"Affected Sources" under Acid Rain Rules and Solid Waste Incineration Units under Section 129

- Regardless of Size

DEQ

Potential to Emit

- Defined in OAR 340-200-0020(123)
- Basis for PSELs
- In most cases:
  - Hourly Maximum Emission Rate (pounds per hour)
  - 8,760 hours per year (tons per year)
- Air Permit can Restrict Potential to Emit
- Can be Complicated
  - inherent process limits and restrictions
  - inherent control strategies

Air Permit - Applying

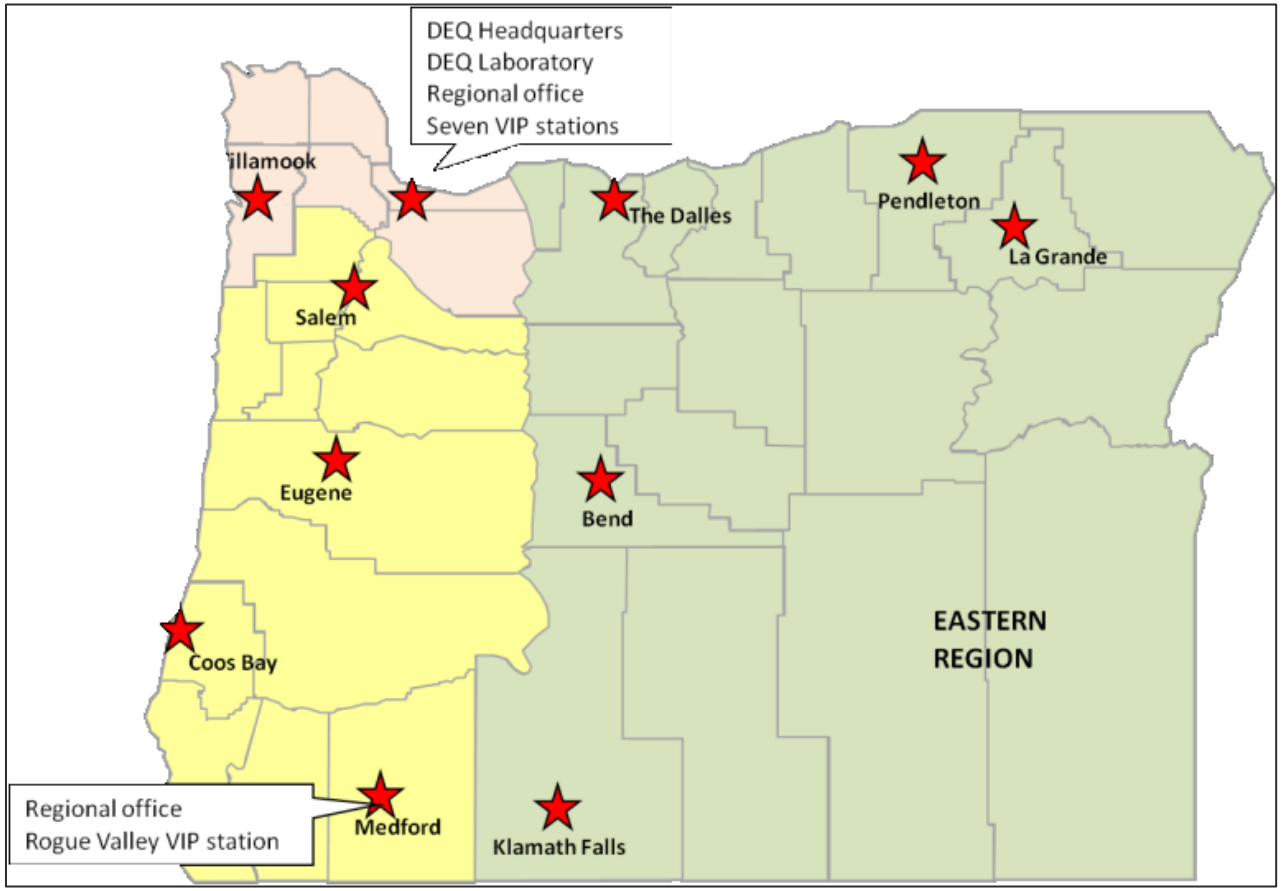
- We have an Application Guidance Document!
  - Guidance for all permit types
- Forms are available on DEQ's website
  - Title V
- YDO is Up and Running!
  - Online submittals
    - Basic and General ACDPs
    - Simple and Standard ACDPs

Air Permit - Applying

- Pre-application Meeting
  - DEQ recommends to meet prior to submitting an application
  - Discuss Project and Timelines
  - Provide Clarity in the Application Process

Who do I contact?

- Northwest Region (Portland)
  - Main Line: 503-229-5696
- Eastern Region (Bend)
  - Main Line: 541-388-6146
- Western Region (Salem)
  - Main Line: 503-378-8240
- LRAPA – Lane County
  - Main Line: 541-736-1056
  - https://www.lrapa.org/



Land Use Compatibility Statement (LUCS)

- Ensures DEQ permit or approval is consistent with local government comprehensive plans and land use regulations.
- DEQ does not make land use decisions.
- Required for new sources and some modifications.
- Contact the Planning Department in the City or County where the project is located.
- Detailed LUCS information on DEQ's website.

Cleaner Air Oregon (CAO)

- Focus: Toxic Air Contaminants
- Who does it apply to?
  - New Simple and Standard ACDPs
  - Some Modifications
  - Called-in Facilities
- CAO Website
- “Source Risk Limits” Section in Air Permit
- Visit afternoon CAO Presentation for more!

National Ambient Air Quality Standards

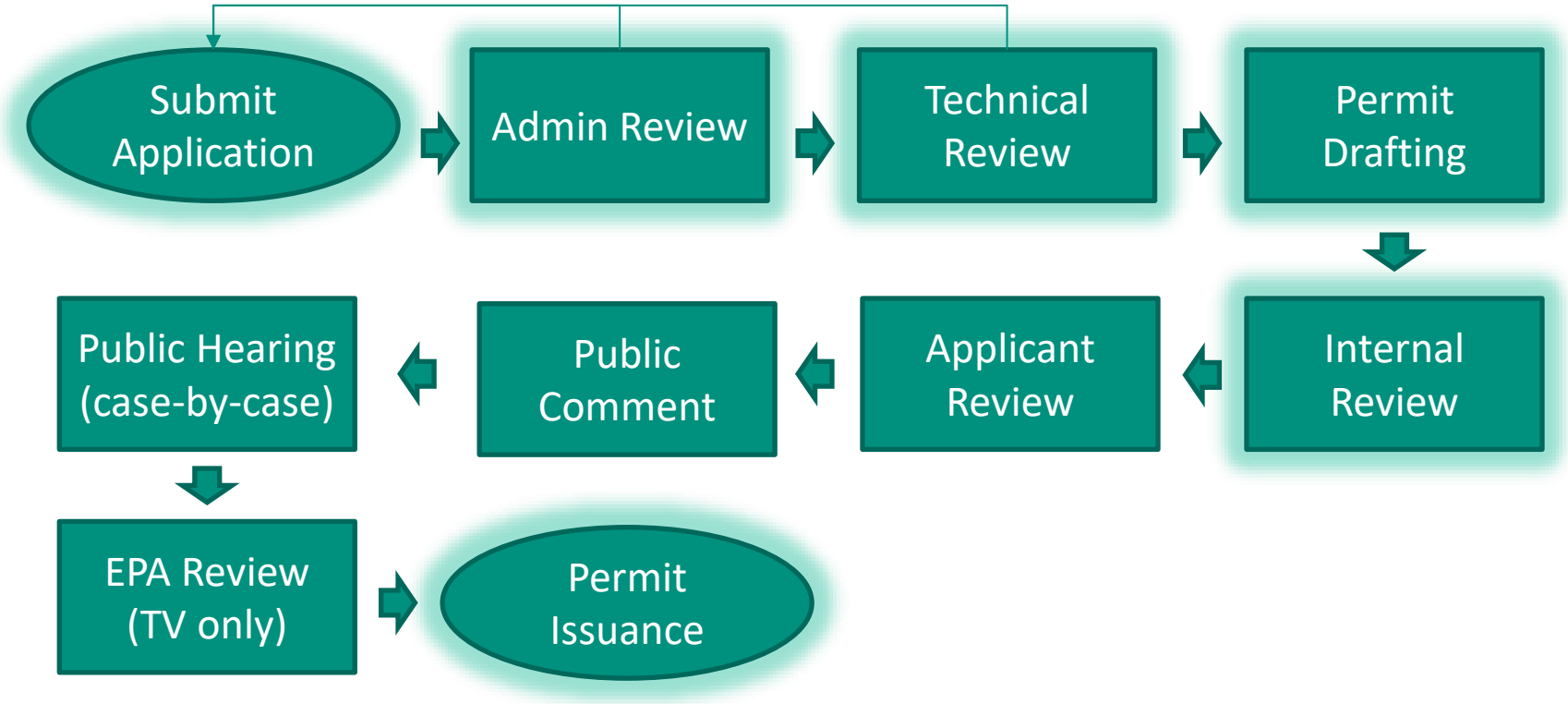
- Annual SERs Not Protective of Short-Term NAAQS
- Modeling Required
  - New Simple and Standard ACDPs
  - Existing Facilities
    - With CAO: Can do concurrently with CAO
    - Type 2 or Type 3 change for a new or replaced device
- NAAQS Website ← LOTS of Information Here!

SER = Significant Emission Rate

Fees

- OAR 340-216-8020 Table 2
- Initial permitting fees
- Annual fees
- Specific activity fees (permit modification)

Permitting Process



Applicant Pre-Public Notice Review

- DEQ Provides Source with Draft Permit Documents
- Simpler to address source comments prior to public notice
- Key Things to Look for:
  - Are Emissions Units correctly identified?
  - Verify NSPS/NESHAP applicability determinations
  - Do you understand why each requirement is in permit?
  - Do conditions need clarification?
  - Read each condition!

Public Participation

- OAR 340 Division 209
- Up to 40-day period for DEQ to receive comments
- Public Hearing(s), if requested
- Title V Permits – EPA 45-day Review
- DEQ responds to comments received
- Permit changes may require 2nd public comment period
- **If a facility has approved LUCS and meets all legal requirements, DEQ will issue the facility's air quality permit**

What goes into Air Permit?

- A permit is the “Tool for Compliance” - contains conditions demonstrating compliance with applicable regulations
  - Emission Limits (PSEL, facility-wide)
  - Performance Limits (Unit specific)
  - Source Testing
  - Monitoring
  - Recordkeeping
  - Reporting

PSEL = Enforceable limit on facility’s potential-to-emit

Emission Limits

Pollutant	Plant Site Emission Limits (PSEL)		
	Previous PSEL (tons/year)	Proposed PSEL (tons/year)	PSEL Increase (tons/year)
PM	24	3	-21
PM_{10}	14	3	-11
$PM_{2.5}$	9	3	-6
NO_x	39	39	0
CO	99	20	-79
VOC	39	5	-34
GHG (CO_2e)	74,000	3,031	-70,969

Performance Limits

2.3. Particulate Matter Emissions

The permittee must comply with the following particulate matter emission limits.

a. Particulate matter emissions from emergency generator engines and fire pump engines, and any device or process (other than fugitive emissions sources, fuel burning equipment, refuse burning equipment, or solid fuel burning devices certified under OAR 340-262-0500) that is installed, constructed or modified after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot. [OAR 340-226-0210(2)(c)]

b. Particulate matter emissions from any fuel burning equipment (except solid fuel burning devices that have been certified under OAR 340-262-0500) that is installed, constructed or modified on or after April 16, 2015 must not exceed 0.10 grains per dry standard cubic foot, corrected to 12% CO_2 or 50% excess air. [OAR 340-228-0210(2)(c) and OAR 340-228-0210(3)]

NAAQS Limits

4.3. National Ambient Air Quality Standards (NAAQS) Impact Analysis Conditions

The permittee shall comply with the following conditions limiting the non-emergency operations of the emergency engine generator sets to protect NAAQS. [ORS 468A.025(4), OAR 340-226-0140(1); OAR 340-202-0050(2)]:

a. Each emergency engine generator set is limited to 100 hours per year for readiness testing and maintenance operations.

b. Each emergency engine generator set is limited to operate up to 20 hours per day for readiness testing and maintenance operations. This requirement does not apply to hours of operation for commissioning and source testing.

c. No more than 25 emergency engine generator sets may be operated simultaneously during readiness testing and maintenance operations.

d. The following minimum emergency engine generator set exhaust stack heights must be maintained at:
   i. Data Center Building CCO3 exhaust stacks - 70.0 feet elevation above grade.
   ii. Data Center Building CCO5 exhaust stacks - 70.0 feet elevation above grade.
   iii. Data Center Building CCO6 exhaust stacks - 70.0 feet elevation above grade.

CAO Limits

6.0 SOURCE RISK LIMITS (SRL)

6.1 Chronic Source Risk Limits

The total amount of ULSD fuel used annually in all emergency engines for the purposes of all non-emergency operations as described in Condition 3.1d.iv, including commissioning, shall not exceed 294,585 gallons per year. [OAR 340-245-0110(1)(a)]

6.2 Annual Period

The annual source risk limits apply to any 12-consecutive calendar month period. [OAR 340-245-0110(1)(a)]

6.3 Acute Source Risk Limits

The total amount of ULSD fuel used daily in all emergency engines for the purposes of all non-emergency operations as described in Condition 3.1d.iv, including commissioning, shall not exceed 20,000 gallons per day. [OAR 340-245-0110(2)(a)]

6.4 Daily Period

The acute source risk limits apply to any 24-consecutive hour period. [OAR 340-245-0110(1)(b) and 340-245-0020(3)]

6.5 Emission Limits

The permittee must not exceed the toxic air contaminant (TAC) emission limits in **Condition 16.0** for all non-emergency operations as described in Condition 3.1d.iv. [OAR 340-245-0110(5)]

Source Testing (1)

6.1. Source Testing Requirements

The permittee must perform the following source tests within 180 days of the fryer FL6 initial start-up unless an extension is approved by DEQ in writing: [OAR 340-212-0120]

a. The permittee must conduct a source test of the fryer FL6 to demonstrate compliance with Condition 2.3 and verify emission factors used to determine compliance with the PSEL of Condition 4.1. During the source test, the following parameters must be monitored and recorded:

i. Emissions of PM in gr/dscf, pounds/hour and pounds/ton of finished product;
ii. Emissions of VOC in ppmvd (propane), pounds/hour and pounds/ton of finished product;
iii. Opacity readings on the exhaust stack following the procedures of EPA Method 9, for a period of at least six (6) minutes during or within thirty (30) minutes before or after each test run;
iv. The production rate, in tons of finished product/hr, and product type;
v. The natural gas combustion rate, in ft^3/hr; and
vi. Wet scrubber operating parameters, including water pressure (psi) and flow rate (gpm).

Source Testing (2)

b. All tests must be conducted in accordance with DEQ's Source Sampling Manual and the approved source test plan. The source test plan must be submitted at least 30 days in advance and approved by the Regional Source Test Coordinator. The source test report must be submitted to the Regional Source Test Coordinator within 60 days of the test unless otherwise approved in the source test plan.

Tested Pollutant	Reference Test Method*
PM	ODEQ Method 7
VOC	EPA Method 25A
Exhaust gas flow rates	EPA Methods 1-4
Opacity	EPA Method 9

*Substitution of alternative test methods must be pre-approved by the DEQ.

c. Only regular operating staff may adjust the combustion system or production processes and emission control parameters during the source test and within two hours prior to the source test. Any operating adjustments made during the source test, which are a result of consultation with source testing personnel, equipment vendors or consultants, may render the source test invalid.

d. Unless otherwise specified by permit condition or DEQ approved source test plan, all compliance source tests must be performed as follows:
   i. At least 90% of the design capacity for new or modified equipment;
   ii. At least 90% of the maximum operating rate for existing equipment; or
   iii. At 90% of the normal maximum operating rate for existing equipment. For purposes of this permit, the normal maximum operating rate is defined as the 90th percentile of the average hourly operating rates during a 12 month period immediately preceding the source test. Data supporting the normal maximum operating rate must be included with the source test report.

Monitoring

5.1. Monitoring Requirements

The permittee must monitor the operation and maintenance of the facility and associated air contaminant control devices as follows: [OAR 340-226-0120]

a. Amount of natural gas combusted in boilers and fryers (ft^3); and
b. Weight of finished product processed in the fryers (tons).

Recordkeeping

8.1. Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the facility and associated air contaminant control devices: [OAR 340-214-0114]

a. Amount of natural gas combusted in boilers and fryers (MMft^3/month);
b. Weight of finished product processed in the fryers (tons/month);
c. Records of operation and maintenance requirements for wet scrubbers described in Condition 3.1; and
d. Records of maintenance requirements for boilers described in Condition 3.2.

Reporting

9.2. Annual Report

For each year this permit is in effect, the permittee must submit to DEQ by **February 15** two (2) paper copies and one (1) electronic copy of the following information for the previous calendar year. If February 15 falls on a weekend or Monday holiday, the permittee must submit their annual report on the next business day. **[OAR 340-214-0114(2)]**

a. Operating parameters:
   i. Amount of natural gas combusted in boilers and fryers, in MMft^3, monthly and 12-month rolling;
   ii. Weight of finished product processed in the fryers, in tons, monthly and 12-month rolling.
b. Calculations of pollutant emissions for 12-consecutive calendar month period determined each month in accordance with Conditions 5.2, 5.4 and 5.5.
c. A brief summary listing the date, time, and the affected device/process for each excess emission that occurred during the reporting period.
d. Summary of complaints relating to air quality received by permittee during the year in accordance with Condition 8.2.
e. List permanent changes made in facility process, production levels, and pollution control equipment which affected air contaminant emissions.
f. List major maintenance performed on pollution control equipment.

Permit Review Reports

- Review reports, sometimes referred to as a “statement of basis”, are used to discuss the decision-making that went into developing the permit
- Historical information about the facility such as modifications or construction during the previous permitting period, and compliance history regarding inspections or violations
- Emissions detail sheets are included to show all the calculations that went into establishing PSELs and setting emissions limits

Permit Review Reports

- Example Emissions Calculations:

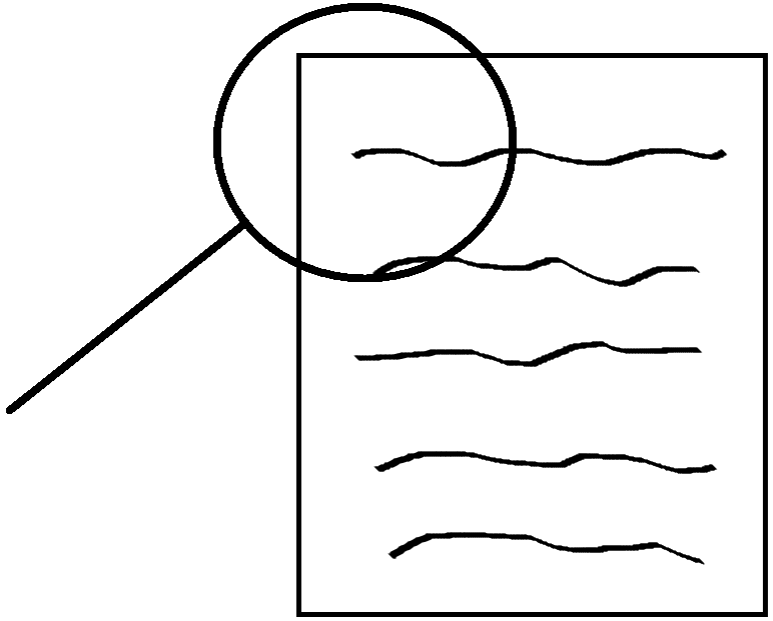
Pollutant	Emission Unit		Annual Production or Process Rate		Emissions Factor			Emissions
			Rate	Units	Rate	Units	Reference	tons/yr
VOC	EU: B-1 Boiler (Firing Natural Gas)		540,229	MMBtu/yr	5.36E-03	lb/MMBtu	ODEQ AQ-EF05	1.448
	EU: B-1 Boiler (Firing Fuel Oil)		2,960	MMBtu/yr	1.45E-03	lb/MMBtu	ODEQ AQ-EF04	0.002
	EU: OX-1 (Process gas)		8,760	hr/yr	0.12	lb/hr	ST - April 2003	0.526
	EU: OX-1 (Firing Natural Gas)		6,570	MMBtu/yr	5.36E-03	lb/MMBtu	ODEQ AQ-EF05	0.02
	EU: LOAD-1 Transfer Racks	UFC HCHO	346,812	gal/yr	8.83E-06	lb/lb product	AP-42 Section 5.2	0.02
		UFC MeOH	346,812	gal/yr	9.03E-06	lb/lb product	AP-42 Section 5.2	0.02
		MeOH Distillate	480,000	gal/yr	1.15E-04	lb/lb product	AP-42 Section 5.2 (98% Vapor Balance Control)	0.006
	EU: CT-1 Cooling Tower		3,048,480	Mgal/yr	7.00E-04	lb/Mgal	AP-42 Table 5.1-3	1.07
	EU: Miscellaneous Emission Units – Waste Resin Pile		8,760	hr/yr	9.66E-04	lb/hr	ST – Resin Industry-specific Spray Dry Tests	0.004
	EU: Miscellaneous Emission Units - TW-1	UF Resin	5.31E-02	lb/truck	4,035	trucks/yr	Ideal Gas Law Estimations	0.11
		PF Resin	5.33E-02	lb/truck	5,483	trucks/yr	Ideal Gas Law Estimations	0.14
		Polyamide Resin	1.48E-01	lb/truck	4,000	trucks/yr	Ideal Gas Law Estimations	0.30
	EU: Aggregate Insignificant – Cleaning and Degreasing		160	gal/yr	7	lb/gal	Assumes 100% volatilization	0.5
	EU: LDAR		TCEQ Air Permit Technical Guidance for Chemical Sources Fugitive Guidance - See Appendix C					5.54
	EU: Miscellaneous Emission Units – Storage Tanks		Variable	gal/yr	Variable	lb/gal throughput	AP-42 Section 7.1- See Appendix D	3.76
	EU: Miscellaneous Emission Units - LOAD-2		Variable	lb resin/yr	Variable	lb/lb resin	AP-42 Section 5.2 – See Appendix E	0.52
							Total VOC	**14.0**

So You Have an Air Permit!

- Stay below your Emission Limits
- Read your permit and ask questions early
- Read your Review Report
- Keep a copy on-site
- Review for actions that must be taken
- Expect an inspection!

IMPORTANT!!!!

- Read your permit!
- Read your permit!
- Read your permit!



Why Is This Important?

- A permit is the “Tool for Compliance”
  - Compliance with each permit condition demonstrates compliance with applicable regulation(s)
  - Details what testing and recordkeeping is required
  - At inspection time, the source will be tested on its contents!
  - Ignorance is not an excuse

Inspections

- DEQ Inspects Permitted Facilities
  - Periodically (every 2-10 years)
  - Complaint Inspections
- Can be Announced or Unannounced
- The Air Permit is the Rubric
- DEQ Will Enforce on Violations
  - Warning Letter or Pre-Enforcement Notice

Making Changes

- Two Main Pathways
  - Notice of Intent to Construct
  - Permit Modification
- Which Pathway?
  - What is PTE of Proposed Project?
  - Does Current Air Permit have Relevant Language?
  - Does the Air Permit Specify NC or Mod?
- CALL your permit writer

Feeling Overwhelmed?

DEQ is here to help!

Next up: Small Business Assistance for Air Quality Permitting

AQ Small Business Assistance

Air Quality Permitting

and

Small Business Resources

SB Program – What do we do?

- Assist with the permitting process
- Workshops and webinars on permitting and AQ topics
- Resource connections

Small Business Definition

A small business, as defined by the Clean Air Act, is one that:

- Has 100 or fewer employees
- Meets the Small Business Act's definition of a Small Business
- Is not a major source of air pollution
- Emits less than 50 tons of any regulated pollutant per year
- Emits less than 75 tons of combined regulated pollutants per year

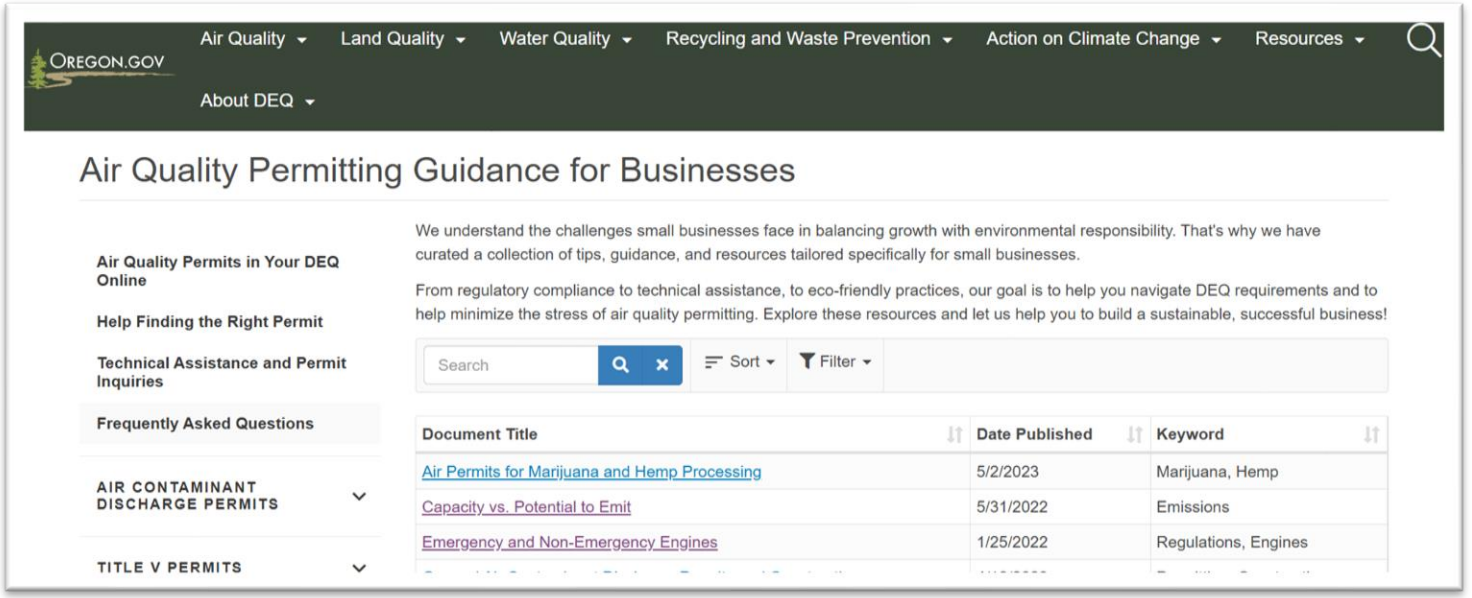
Why Air Quality Permits Matter

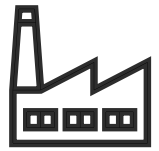
- Meet AQ standards
- Protect public health
- Protect the environment

Simplifying the Permitting Process

Tools

- Your DEQ Online
- AQ Permits Online
- SB Website
- SB Permitting Guidance Website





Supporting Small Businesses

Simplifying Compliance

- Guidance with DEQ regulations
- Tailored workshops

Collaborative Solutions

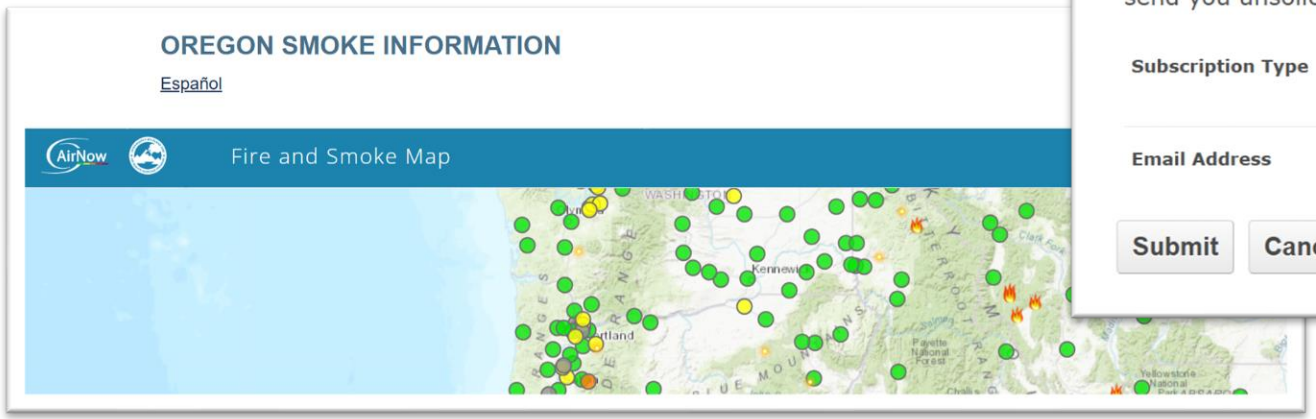
- Have a specific topic or industry challenge? Let me know!
- Guidance docs or workshops to help the regulated community

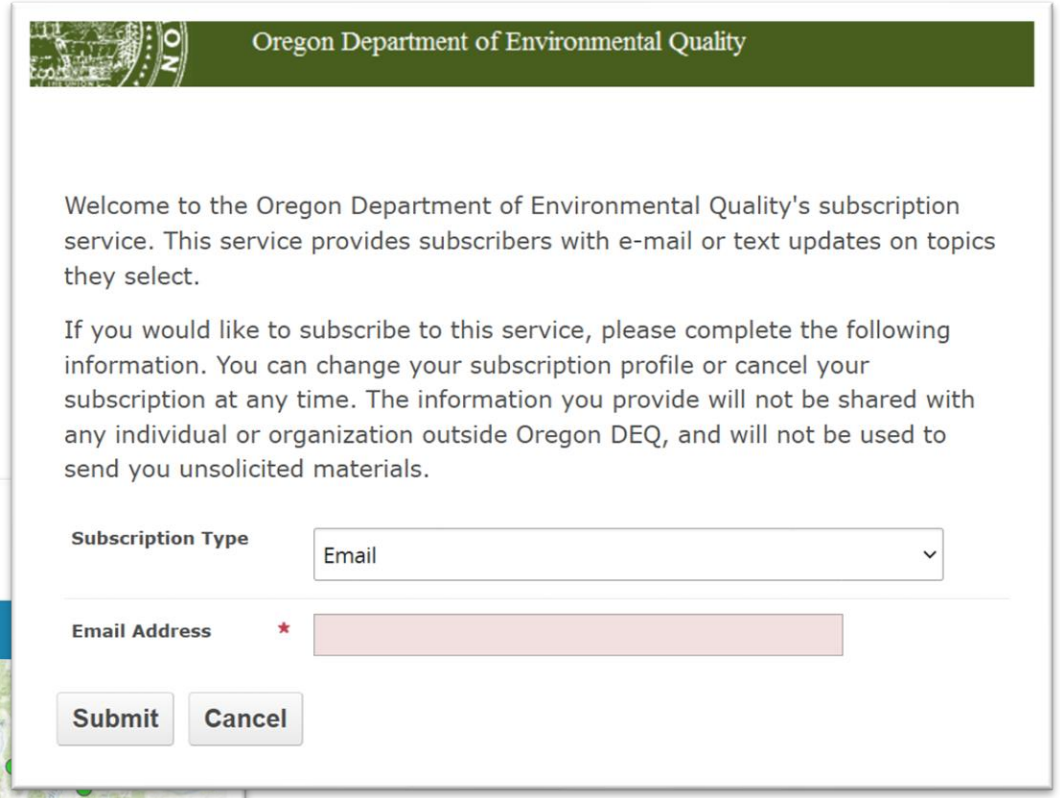
Communication

- Your feedback is invaluable!
- Reach out anytime at BAP@deq.oregon.gov

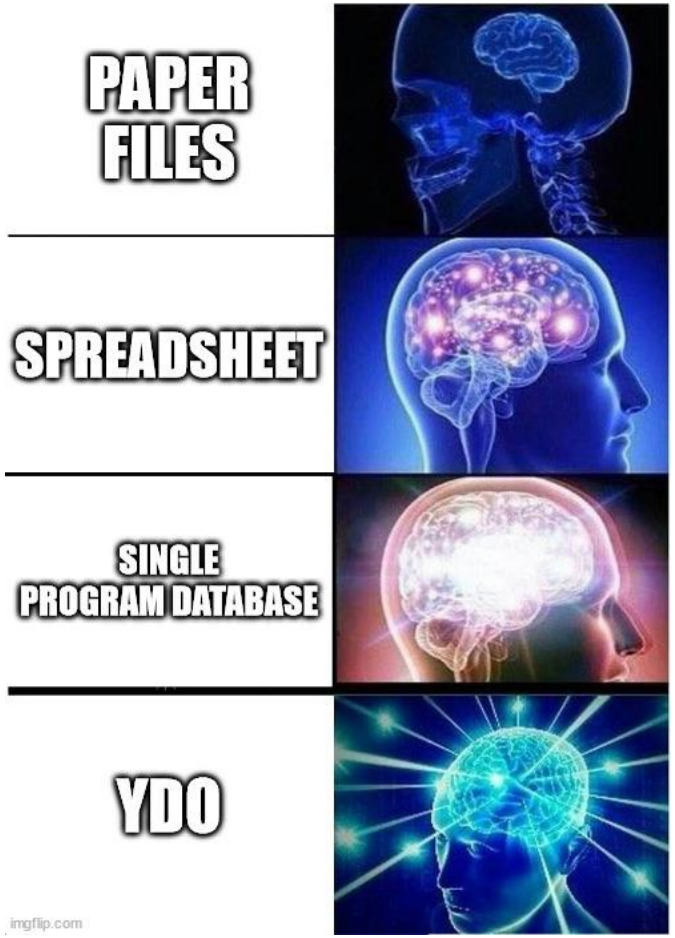
Stay Informed

- Sign up for GovDelivery
- Fire and Smoke Map
- Engage with community programs





What is Your DEQ Online?

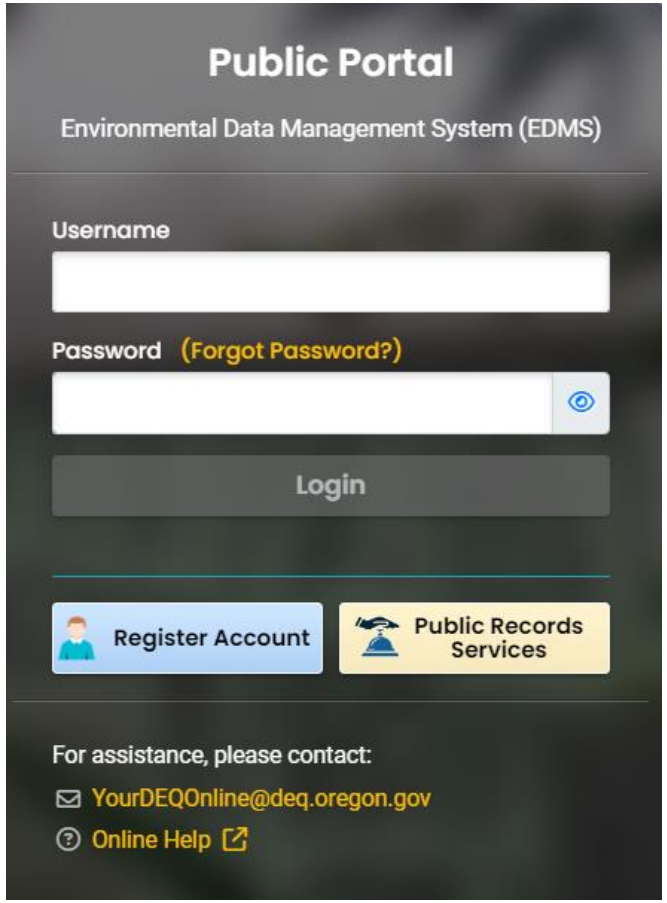


- Secure, cloud-based “software-as-a-service” and **system of record** for many permitted, licensed, certified individuals and facilities across **many DEQ programs** and all regions

- Applications, renewals and reporting are **received in the YDO Public Portal**, and DEQ-issued permits, licenses, certifications and other information are **processed in the Authority Portal**

- **YDO information is available through many avenues**: YDO Public Records Portal, internal YDO reports, DEQ Website reports, YDO Helpdesk and PRR system requests

Your DEQ Online Public Portal



- The regulated community, consultants, and the public have access to Your DEQ Online through the Public Portal.
- Publicly available public records and services, such as Pollution Complaints and Public Comments, can be accessed without a login.

YDO Helpdesk!

Wrap Up

What we covered:

- How we simplify compliance and support small businesses
- Why AQ permits matter
- Tools and resources
- How to stay informed and involved
- Sneak peek at YDO

Your next steps:

- Contact me for assistance or to share ideas
- Explore AQ permits online and other resources
- Stay connected with updates via GovDelivery and DEQ's website

Small Business Assistance Contact

For more information about DEQ's Small Business Environmental Assistance Program, visit our website!

https://www.oregon.gov/deq/aq/aqPermits/Pages/BAP.aspx

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