# AIR PERMIT BASICS

## Minor Source Permitting

Business and the Environment Conference

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## Southwest Clean Air Agency

- Local air agency authorized under RCW 70.94 (Washington Clean Air Act)
- Multi-county jurisdiction
- Board of Directors and Executive Director
  - Uri Papish – Executive Director
- 11 Members on Board
  - 10 Elected officials
  - 1 Member-at-Large

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# Air Quality Partners

- **Oregon Department of Environmental Quality (ODEQ)**
  - Interstate air shed
    - Ozone – Maintenance Plan
  - Columbia River Gorge National Scenic Area
- **Washington Department of Ecology (WDOE)**
  - Delegated programs
  - Regional offices
- **Other Washington local air agencies**
- **Energy Facility Site Evaluation Council (EFSEC)**
- **US Environmental Protection Agency (EPA)**
  - Delegated programs



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# Which Pollutants?

- **6 Criteria Air Pollutants – EPA criteria documents**
  - **40 CFR Part 50 – Primary and Secondary Standards**
    - Oxides of nitrogen (NOx)
    - Carbon monoxide (CO)
    - Sulfur oxides ($SO_2$)
    - Lead (Pb)
    - Ozone ($O_3$) – $NO_x$ and volatile organic compounds (VOC) as precursors
    - Particulate matter (TSP vs. $PM_{10}$ vs. $PM_{2.5}$)
      - Primary and secondary
- **187 Hazardous Air Pollutants (HAP) (federal)**
- **> 500 Toxic Air Pollutants (TAP) (state)**
- **Green House Gas pollutants (GHG) (federal-state)**

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# Permit Regulations?

- **SWCAA 400** – General Regulations
  - 400-045/046 Nonroad Engines
  - 400-072 Small Unit Notifications
  - 400-109/110 Stationary Sources
- **WAC 173-460** (1994) - Toxic Air Pollutants
- **WAC 173-401** - Air Operating Permits (Title 5)
- **WAC 173-400** - 700 Major Sources (PSD)

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## Who / What Needs a Permit?

- Who = New Sources = All new sources, and modifications with an increase in emissions (SWCAA 400-109)
- Emission unit (EU) – any part of a stationary source that emits to ambient air (SWCAA 400-030 (42))
- Very small sources are exempted (SWCAA 400-109 (3))
- SWCAA 400-109 - Who
- SWCAA 400-110 - How

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## Who / What Needs a Permit?

- Large and small boilers
  - schools, small businesses, etc.
- Emergency/backup electrical generators
- Process actions such as alcohol wipe down
- Process diesel engines that are not non-road
  - rock crushers, screens, pumps, drill rigs, portable equipment where engine does not drive wheels
- Painting/coating/plating operations

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- Non-road engines (SWCAA 400-045)
  - Engines on track mounted rock crushers and screens

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# What Emission Standards Apply?

- NAAQS – National Ambient Air Quality Standards for each pollutant
- Best Available Control Technology (BACT) for all new sources, and modifications with an increase in emissions
- Reasonably Available Control Technology (RACT) for emission units that are modified with a decrease in emissions
- Maximum Achievable Control Technology (MACT) for emission units subject to a federal MACT standard
- Visibility consideration for the Columbia River Gorge

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# Permit Small Source Exemptions

## SWCAA 400-109

- Facility wide exemption if individual NOx, CO, $SO_2$, VOC pollutants < 1.0 tpy (PTE)
- $PM_{10}$ 0.75 tpy $PM_{2.5}$ 0.5 tpy
- Toxics – 1.0 tpy combined or < SQER
- Asphalt roofing contractors
- Insecticide/pesticide or fertilizer application
- Portable welding business
- Non industrial/commercial laundering devices
- Small on-site laboratory operations for QA

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## Permit Small Source Exemptions

- Office equipment
- Residential wood heaters
- Housekeeping activities
- Steam cleaning equipment
- Lawn and landscape activities
- Flares used for public safety
- Sampling connections for testing

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## ADP Application Submittal

- **Allow sufficient time for application processing**
  - Time to issue a permit depends on:
    - Completeness of application
    - Type and quantity of proposed emissions - modeling
    - Applicability of federal standards (MACT)
    - Proposed control strategies = BACT
    - SEPA – State Environmental Policy Act
    - Must be accompanied with fee
- **Must have permit prior to start of construction**
  - Commenced construction
    - Continuous program of actual on-site construction
    - Binding agreements or contracts which can not be cancelled or modified without substantial loss
    - Consistent with 40 CFR 52.21 (PSD) (EPA Guidance 1/31/14)

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# ADP Application Contents

- Process flow sheets and equipment layout diagrams.
- Manufacturer, model number, size, serial numbers (for each piece of equipment).
- Quantify average and maximum hourly throughput values, average yearly totals, and maximum concentrations for each pollutant.
- Applicant's calculation of the kinds and amounts of emissions for each emission point, materials handling operation or fugitive category (both controlled and uncontrolled).
- Plot plan including identification of proposed emission points to the atmosphere, distance to property boundaries, height of buildings and stack height above ground level.
- Identification of raw materials and/or product specifications (physical and chemical properties) and typical ranges of operating conditions as related to each emission point (toxic air contaminants require a separate summary); Safety Data Sheets (SDSs) should be included for all compounds used.
- Identification of the methods/equipment proposed for prevention/control of emissions to the atmosphere.
- Information sufficient to demonstrate the ability of the emission controls proposed as being consistent with those provided in the applicable regulations (BACT/NSPS/RACT/NESHAPS/LAER analysis).
- The kinds and amounts of emission offset credits proposed for assignment when operations are within a non-attainment boundary (see SWCAA 400-120 and 400-130).
- Estimates of the proposed project ambient impact under average and least favorable conditions where pertinent to PSD (WAC 173-400-141) or Toxic Air Pollutants (WAC 173-460) (1998) requirements.
- **All applications need to be accompanied with a completed SEPA checklist or SEPA determination.**

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# Toxic Air Pollutants

- Regulated under WAC 173-460 (1994) (adopted)
- Has separate but complementary permitting process (Toxics New Source Review including T-BACT)
- Over 580 compounds to be considered
- List includes the EPA hazardous air pollutants
- Class A – Cancer causing
- Class B – other health impacts
- Some have a small quantity emission rate (SQER) that minimizes review process and time
- All need to be identified and quantified in application

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# Minor Source Permit Types

- **Small Unit Notice (SUN) – SWCAA 400-072**
  - Selected Small Units
  - "Permit by rule" - $300 fee per unit
- **Air Discharge Permit (ADP) – SWCAA 400-110**
  - Minor new source review
    - BACT
    - < 100 tpy single pollutant -10/25 HAP – 100,000 tpy $CO_2$
    - Criteria and toxic pollutants
  - Synthetic minor (Title 5 Opt Out)
    - Voluntary limits where PTE > 100 tpy
      - < 100 tpy criteria air pollutants
      - < 10 tpy single hazardous air pollutant
      - < 25 tpy combine hazardous air pollutants
      - < 100,000 tpy CO2e

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# Other Air Permit Types

- **Non-Road Engines – SWCAA 400-045**
  - Based on engine size
- **PSD – Prevention of Significant Deterioration – major sources**
  - 40 CFR Part 52.21
  - In Washington – all PSD Permits issued by Department of Ecology
- **Title IV – Acid Rain Permit**
  - Acid rain sources
  - WAC 173-406
  - Issued concurrently with Title V permit
- **Title V – Air Operating Permits**
  - WAC 173-401

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# Agencies That Issue Permits

- Minor source air permits (ADP)
  - **Southwest Clean Air Agency**
- Prevention of Significant Deterioration (PSD)
  - **Washington Department of Ecology HQ**
- Power Plants Greater Than 350 MW
  - **Energy Facility Site Evaluation Council (EFSEC)**
- Large Export Petroleum Terminals
  - **Energy Facility Site Evaluation Council (EFSEC)**
- Acid Rain Permit (Title IV)
  - **Southwest Clean Air Agency (< 350 MW)**
  - **Energy Facility Site Evaluation Council (EFSEC) (>350 MW)**
- Air Operating Permit (AOP) – Title V
  - **Southwest Clean Air Agency (< 350 MW)**
  - **Energy Facility Site Evaluation Council (EFSEC) (>350 MW)**
- Pulp and Paper and Aluminum Facilities
  - **Washington Department of Ecology – Industrial Section – multi media**

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# ADP Permit Process

- **Pre-application meeting / call**
- Application
- Draft Permit (if necessary)
- Review by Applicant / Public
- Public Notice (if necessary)
- Public Hearing (if requested)
- Final Air Discharge Permit
  - Issue or Modify or Deny based on public involvement

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# ADP Permiting Timeline

**Preliminary Conference / Telephone Call**

**Submit application**
30 days for initial review

**Application complete**
60 days max from complete

**Issue draft permit (if necessary)**
30-60 days (if necessary)

**Public hearing** (if necessary)
30 days max from comment close

**Final Permit**

**Timeline is highly dependent on completeness of application!!**

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# ADP Permit Contents

- Identification of Emission Units / Facility
- Emission Limits – short / long term
- Operating Limits / Requirements
- Startup/Shutdown/Malfunction (SSM)-Limits/requirements
- Monitoring / Recordkeeping / Reporting
- Testing Requirements / Protocols

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# Permit Contents - Details

## Limits/Requirements

- Short-term and long-term limits
- Grain loading, opacity
- Pounds per hour or ppm
- Tons per year by pollutant by emission unit
- Facility-wide limits
- Specific requests of facility
- Generally applicable requirements / nuisance
- Must be enforceable as a practical matter - EPA

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# Permit Contents - Details

- Monitoring, Recordkeeping & Reporting
  - Parameters to be monitored / reported
    - Temperature
    - Pressure
    - Flow rate
    - pH
    - Continuous Emission Monitor (CEM) (COM)
- Reports / Data to be Submitted
- Tests to be Performed / Protocols

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# Permit Basis Document

- Technical Support Document (TSD)
- Issued with each permit and contains:
  - Description of proposed project / facility
  - Detailed descriptions of equipment and processes
  - Detailed development of emission calculations
  - Basis for permit conditions
  - Basis for BACT decision
  - Basis for applicable and non-applicable requirements/regulations determinations
  - Basis for monitoring/recordkeeping/reporting and testing requirements
  - Public involvement activities and SEPA

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# Permitting Costs

| | |
|---|---|
| • Filing fee | $600 |
| • Engineering review fee | $720 (min)* |
| TOTAL | $1320 (min)* |

•Above fees effective Jan 1, 2019

•Fees based on hours – additional charges at $84/hr

•Expedited processing – double the fees

•Other fees

SEPA, EIS, ERCs, Variance

Refer to Consolidated Fee Schedule on WEB page

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# Enforcement Procedure

- Notice of Violation (NOV)
- 30 Days Waiting Period
- Notice of Violation or
  Notice of Correction
- Source may request mitigation
- Appeal to Pollution Control Hearings Board (PCHB)
- Final PCHB Order

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# Registration Program

- Applies only to non-major facilities
- Does not apply to exempt (small) facilities
- Fee program that pays for inspections, emissions inventory, enforcement and business assistance
- Fee is based on 3 parts – SWCAA 400-100
  - tons per year of criteria air pollutants / $55
  - tons per year of toxic air pollutants / $30
  - number of emission units / $108
- Fee assessed annually in January for fiscal year that covers July 1 to June 30 – dates set by statute
- This is NOT a permit fee – but if left unpaid can result in forfeit of permit

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## Common Problems

- Incomplete application
- Construction / operation without permit
- Equipment / process changes not permitted
- Permit contains ongoing requirements
  - Emission limits
  - Monitoring requirements
  - Reporting requirements
    - Process parameters
    - Emissions
- Testing requirements not completed
  - Reminders sent to facilities 3-4 months in advance

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## Air Quality
## Business Assistance Program

- Required by Congress in 1990 / Title 5
- Provided to all businesses
- Provided by SWCAA Staff – call / email
  360-574-3058
- Resources on web page
  www.swcleanair.org

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# Permit Compliance

- **EVERYONE'S RESPONSIBILITY**
  - Performed by Facility
  - Performed by Agency - inspections
  - Performed by Public – records review
  - Performed by EPA if insufficient by other avenues (air permits are federally enforceable)

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# Other Considerations

Toxic Air Pollutants – WAC 173-460 (1994)
Tier 2 toxic review performed by Ecology

SEPA checklist needs to be completed for each permit application/project (WAC 197-11)

Portable sources require permits prior to operating in SWCAA jurisdiction
Rock crushers / Asphalt plants

Standby / emergency generator engines need to be permitted

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# Resources

- Agency staff – call (360) 574-3058
- SWCAA web page
  - www.swcleanair.org links
  - Publications / forms
- EPA resources
  - NSR manual (www.epa.gov/ttn/nsr/gen/wkshpman.pdf)
  - EPA EAB (www.epa.gov/eab)
  - ADI (es.epa.gov/oeca/eptdd/adi.html)
  - TTN (www.epa.gov/ttn)

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# Take Home Messages

- "Call before you ~~dig~~ construct or purchase"
  - Early communication speeds up process and timeline
- Provide complete application including fee
  - Reduces review time and fees
- Allow sufficient time in process for permitting
- Permit has ongoing conditions and requirements
  - Post permit if necessary to maintain compliance
- "Failure to plan sufficiently by facility does not constitute an emergency for the agency!"

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# WEB Resources

www.swcleanair.org

air permits

http://www.swcleanair.org/permits/index.asp

forms and applications

http://www.swcleanair.org/forms/index.asp

regulations

http://www.swcleanair.org/regs/index.asp

facility details

http://www.swcleanair.org/epages/facilitysearch.asp

pollutants

http:www.swcleanair.org/epages/pollutants

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# AQ Topics Not Addressed

- AQ Modeling
  - Toxics
  - NAAQS
- Visibility protection
- Specific facility type rules
- Nonattainment provisions
- Emission reduction credits (ERCs)
- Asbestos
- Emission inventory
- BACT/RACT process
- SEPA process/requirements
- Consideration of NSPS/NESHAP/MACT rules (EPA)

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# Call Me! Lets Talk!

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