



Introduction to Air Permitting and Reporting



Overview of Session Part 1

- ★ What operations need air permits, what is exempt
- ★ Types of permits
- ★ The permit application process
- ★ Recent changes to permitting process
- ★ Questions

Break



Overview of Session Part 2

- ★ Recent changes to permitting process (cont)
- ★ Permit reporting requirements
- ★ Emission fee reports
- ★ Future permit system changes
- ★ Resources to help you
- ★ Questions



Air Permitting Basics

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Basic Permit Facts

- ★ It is the company's obligation to determine if an air permit is needed.
- ★ It is the company's obligation to apply for, obtain and comply with permit.
- ★ Permit needed before installing equipment, second permit to continue operating.



Basic Facts (continued)

- ★ Air permits are for specific equipment at that facility location.
- ★ New permit is needed if equipment is moved to new facility location. Moving it within facility is generally OK.
- ★ Permits can be transferred to a new owner.

Why Permits Are Important: = What EPA Inspectors Look For

- ★ Are there visible emissions & off-property odors?
- ★ Is company maintaining records required by air permits?
- ★ Does everything that needs an air permit have one?



Common Air Quality Violations

- ★ Installing and operating equipment without obtaining proper permits.
- ★ Not maintaining records required by permits.
- ★ Exceeding permit limits.
- ★ Not maintaining air pollution control equipment.



What Needs an Air Permit?

- ★ No definitive list exists!
- ★ Permit needed for “*air pollution source,*” “*air contaminant source*” or “*emission unit*” = each separate activity or operation that emits air pollutants.
- ★ Permit is only for that air pollution source. Company may need several air permits to cover all plant operations.

What May Need an Air Permit?

4 Rules of Thumb:

- ★ Something with a stack, vent or dust collector.
- ★ Something that uses solvents, paints, inks or adhesives.
- ★ Something that burns fuel.
- ★ Something that causes smoke, dust or odors.



Common things needing permits



Boiler



Paint booth



Printing press



Dry cleaner



Stone crushing

Does Everything Need an Air Permit?

NO – 3 options for exemption:

1. Permanent exemptions (OAC 3745-31-03)
 - ★ Lists 45+ types of equipment and processes that do not need air permits.
 - ★ No EPA notification required.

Some things exempt under permanent exemptions...



Lab fume hoods

Boilers, water heaters
< 10 million Btu



Storage tanks
<19,800 gallons

More examples....



Non-vented machining operations



Small solvent parts washers

Solvent reclaiming units
< 20 gallon capacity



Does Everything Need an Air Permit? (cont.)

2. Permit-by-rule exemption OAC 3745-31-03(A)(4)

- Emergency generators
- Plastic parts molding
- Small crushers
- Ground water/soil cleanup
- Auto body shops
- Gas stations
- Gas-fired boilers
- Printing shops

Simple 1-page notification to Ohio EPA required

Does Everything Need an Air Permit? (cont.)

3. “De minimis” source exemption

(OAC 3745-15-05)

- ★ Emits less than 10 lbs/day of air pollutants and;
- ★ Less than 2000 lbs/yr of hazardous air pollutants.
- ★ Can't be subject to federal rules.
- ★ Requires emission calculations.



Air Permit Self-Assessment

1. Tour your plant to identify all air pollution sources using the 4 rules of thumb.
2. Determine what operations fit the permanent exemptions or permit-by-rule.
3. Determine if remaining operations can be de minimis by doing emission calculations.
4. Assume remaining sources need a permit.

Types of Air Permits

Permit to Install (PTI)

- ★ One-time permit needed before installing equipment.
- ★ For equipment installed after January 1, 1974, can be done years after installation.
- ★ 1-6 month processing time.
- ★ One-time fee.
- ★ Allows 18 months to start construction.

Types of Air Permits (cont.)

Permit to Operate (PTO)

- ★ Allows continued operation after PTI.
- ★ 5-year term, renewable.
- ★ No permit fee.
- ★ Title V permit = one PTO for whole facility.



Permit Application Form Data

- ★ Company name, address.
- ★ Detailed description & diagram of equipment being installed/operated.
- ★ Usage rates of raw materials, fuels.
- ★ Production rates of finished products.
- ★ Description of pollution controls.
- ★ Estimate of types & quantities of emissions.



Permit Process

- ★ Company completes PTI application.
- ★ Submits to District Ohio EPA office.
- ★ District Office reviews for completeness within 14 days, notifies company.
- ★ District does technical review, 1-3 months.
- ★ District writes permit, sends to Central Office (Columbus).



Permit Process (cont.)

- ★ Central Office performs review, < 1 month; returns to district if needed.
- ★ Central Office issues permit either:
 - Final – usually within 2-4 weeks
 - Draft – published in local paper, 30-day public comment, adds 45+ days min before final is issued.



Permit Processing Pitfalls

- ★ Incomplete application (unsigned, wrong form, missing data, no process diagram).
- ★ Submitting application at last minute before starting construction.
- ★ Not anticipating public concern, possible draft permit adding time.



Tips for Faster Permits

General Permit option

- ★ “Canned permit,” can view beforehand
- ★ 45 day or less processing time
- ★ Simplified application form

Ohio EPA “Rush List”

- ★ Written demonstration of economic or financial hardship.

Tips for Faster Permits (cont.)

- ★ Make sure application is complete.
- ★ Meet with district office to discuss installation before submitting application.
- ★ Stay in contact with district permit engineer.
- ★ Promptly respond to requests for additional information.

Tracking Your PTI

1. Contact your local district office
2. Through Ohio EPA Division of Air Pollution Control's Web site:

<http://www.epa.state.oh.us/dapc/pti/ptimain.html>



Latest Changes to Air Permitting

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S.B. 265 Changes to Air Permit Program

1. More construction activities allowed prior to obtaining a PTI.
2. Changing types of “air contaminants” requiring a PTI.
3. Defined “toxic air contaminant” and how Ohio EPA evaluates toxic emissions.
4. Changes in how Ohio EPA applies Best Available Technology (BAT) in permits.



Construction Activities

Allowed in the past....

- ★ Clear site (vegetation, buildings, equipment);
- ★ Grading, clearing, stripping/stockpiling soil, earthwork for foundations;
- ★ Temporary site access roads/parking;
- ★ Temporary construction equipment storage areas;
- ★ Storing construction equipment, including temporary buildings/trailers for storage/offices;



Construction Activities

Allowed in the past....

- ★ Exploratory excavation and borings to assess the suitability of a site
- ★ Excavating footers, pilings, foundations, pads, and platforms, etc.
- ★ Concrete forms and re-bar (no pouring !!)
- ★ Temporary utilities for construction activities
- ★ Removing old equipment from existing buildings.
- ★ Temporary construction dust control systems (sprinklers, etc.).

Construction Activities

Allowed in the past....

- ★ Utility poles by a utility company.
- ★ Temporary erosion and sedimentation control (hay bales, silt fences, rip-raps, sandbags).
- ★ New landscaping (trees, bushes and seeding of disturbed earthwork).
- ★ Landscaping fencing.
- ★ Temporary fences and signs around the construction site.
- ★ Stockpiling of stone, soil and other materials for future construction.



Construction Activities

Effective Dec. 1, 2006 [OAC 3745-31-33] ...

Any “MAJOR” new or modified source can do only the activities allowed in the past

Any “MINOR”* new or modified source can do all allowed in past plus MORE.....*essentially you can do everything except hook up utilities and run new equipment*

**minor here means not a: major modification, major stationary source, synthetic minor, or netting project*

Construction Activities

Additional activities for “minor” sources...

- ★ For any air contaminant source/control equipment, you can install:
 - ? Electrical up to the service panel;
 - ? Piping and sewers up to the point of connection; and
 - ? Inlet air and exhaust duct work with the exception of final connections.
- ★ Site drainage systems (ditches, culverts, earthwork) for underground storm drains, headwalls and catch basins (must obtain necessary storm water permits first).

Construction Activities

Additional activities for “minor” sources...

- ★ Concrete footers, foundations, pads and platforms
- ★ Permanent roadways and parking areas not required to to obtain a PTI.
- ★ Storing parts and equipment of the air contaminant source/control equipment.
- ★ Construction of new or expanded buildings, or the renovation or upgrading of existing buildings



Construction Activities

Additional activities for “minor” sources...

- ★ Equipment that is a component of an air contaminant source/control may be delivered to the site prior to PTI issuance if:
 - ? It is to be installed in an existing building, then it may be placed in its final location and secured.
 - ? If it is to be installed in a building that has not yet been built, then it can either be secured on the foundation of its final site or placed anywhere on the property.

NOTE: No utilities, piping, or duct work may be connected and equipment cannot be operated.

Questions?



Break

Be back in 15 minutes....



Background: Requirements in a Permit

Two types of analysis for permit content:

1. Include all applicable requirements, and
2. Case-by-case BAT analysis
 - ? BAT can be compliance with an existing rule (1) or an additional requirement such as an emission limitation or operational restriction.
 - ? Field office permit writer reviews similar sources installed/modified recently throughout state.
 - ? Develops BAT requirement consistent with recent sources so there is a common expectation throughout the state on how to reduce emissions for like sources.

Defining Air Contaminants Covered by PTIs

In the past.....

- ★ PTIs for new or modified sources that emit any air contaminants:
 - ★ PM, dust, fumes, gas, mist, radionuclides, smoke, vapor or odorous substances, or any combination thereof.



Defining Air Contaminants Covered by PTIs

Effective Dec. 1, 2006 [OAC 3745-31-01] ...

- ★ PTIs only for new or modified sources that emit the following air contaminants:
 - ★ NAAQS (ozone (VOCs), PM_{2.5}, PM₁₀, lead, NO_x, SO₂);
 - ★ Clean Air Act regulated air contaminants; or
 - ★ Contaminant w/ threat of adverse human health effects and is in a rule (toxics).



Defining Air Contaminants Covered by PTIs

Practically, what's different?

Nothing, air contaminants considered in the application and permitting process will be 99.9% the same as before.

Why then?

Provides certainty as to exactly what air contaminants a source must consider when submitting an application.

Defining Air Contaminants Covered by PTIs-Toxics

In the past....

- ★ Toxics policy...could look at over 700+ compounds in the ACGIH book.

Effective Dec. 1, 2006 [OAC 3745-114-01] ...

- ★ 303 toxic compounds.



Air Toxics “Policy” “Law”

In the past....

- ★ “Policy” was to use “Option A” to review any compound listed in the ACGIH book.
- ★ “Option A” review/modeling determines if a toxic compound emissions requires regulation through a permit (i.e., limitations).
- ★ This was a “policy” so it’s application was flexible.

Air Toxics “Policy” “Law”

Effective Dec. 1, 2006 [OAC 3745-114-01 and ORC 3704.03
(F)(4)(a)]

- ★ No longer a “policy” but now a “law”
 - ★ Must use “Option A” – same as before.
- ★ Applicant must provide toxic information in application.
- ★ Certain levels of emissions, specifically identified in the law, may require an emission limit/restriction in PTI, in all other cases a yearly report will now be required.

Air Toxics “Policy” “Law”

Same as our policy, the law exempts some sources from these requirements:

- ★ If MACT, BACT, LAER for that air contaminant is applicable
- ★ Parking lots
- ★ Storage piles
- ★ Storage tanks
- ★ Transfer operations
- ★ Grain silos & dryers
- ★ Emergency generators
- ★ Gasoline dispensing operations
- ★ Emissions solely from the combustion of fossil fuels
- ★ Emission of wood dust, sand, glass dust, coal dust, silica, and grain dust.

Air Toxics “Policy” “Law”

Continue 1 ton/year threshold....

- ★ Prior policy was not to perform Option A analysis on sources emitting less than 1 ton/year of any toxic, unless it is an extremely toxic substance.
- ★ Will continue policy at this time although the new law is silent.



Changes to BAT

Effective Aug. 3, 2006 [ORC 3704.03 (T)]

★ <10 ton/yr controlled... no BAT.

★ Beginning Aug. 3, 2009:

- ? BAT shall be no more stringent than MACT, BACT or LAER.
- ? BAT can only be required on sources if Ohio EPA has developed rules.



Rulemaking Requirement for BAT

- ★ Rule BAT can be work practices, source design characteristics or design efficiency; raw material specification or throughput averaged over a twelve-month rolling period; and monthly allowable emissions averaged over a twelve month rolling period.....*no more lb/hr or lb/day limits*



Rulemaking Requirement for BAT

- ★ Watch for upcoming changes on website:
 - ★ *What's New:* <http://www.epa.state.oh.us/dapc/page/whatsnew.html>
 - ★ *Regulations:* <http://www.epa.state.oh.us/dapc/regs/regs.html>

- ★ Get on our Interested Party List
 - ★ <http://www.epa.state.oh.us/rules.html>



Air Permit Reporting

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Permit, Reporting and PTIO

- ★ Permit Structure
- ★ Reporting Types
- ★ Fee Reports
- ★ PTIO
- ★ Helpful Hints



Permit Structure

- ★ General terms and conditions
- ★ Facility specific requirements
- ★ Emissions Unit specific requirements
 - A. Summary Table
 - Emission unit description
 - Applicable rules
 - Emission limits



Permit Structure

- B. Operational restrictions
- C. Monitoring and/or record keeping requirements
- D. Reporting requirements
- E. Testing requirements
- F. Miscellaneous requirements



Facility Name

PTI Application: 01-08999

Issued: 6/1/2004

Facility ID: 0147042311

Emissions Unit ID: N002

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. Applicable Emissions Limitations and/or Control Requirements**

- The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
N002 - Animal Crematory, ISI-1600, 200 pounds of waste per hour with an afterburner	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.20 pound per hour and 0.88 ton per year. Visible PE from the afterburner stack shall not exceed 5% opacity, as a 6-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-09(B)&(C).
	OAC rule 3745-15-07	See section A.2.a below.
	OAC rule 3745-17-09(B)&(C)	See section B.3 below. PE shall not exceed 0.10 pound per 100 pounds of material charged. See A.2.b below.

2. Additional Terms and Conditions

- The hourly and annual criteria pollutant emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, only the monitoring, record keeping and/or reporting requirements of the afterburner are necessary to ensure compliance with these emission limitations.

B. Operational Restrictions

- All material shall be incinerated in a controlled air, multi-chamber incinerator, or equivalent technology as approved by the Director, which provides complete

Facility Name

PTI Application: 01-08999

Issued: 6/1/2004

Facility ID: 0147042311

Emissions Unit ID: N002

- The secondary combustion chamber temperature shall be maintained at 1600 degrees Fahrenheit or greater during each cremation cycle.
- The stack shall be designed to minimize any building down wash impacts from emissions and/or odors on employees and nearby residences. The design shall meet good engineering practices so as not to result in excessive concentrations of air contaminants and/or odors in locations at, near or, in such a configuration, as to affect any air intake for heating and cooling of buildings or at operable windows or doors.

C. Monitoring and/or Recordkeeping Requirements

- The permittee shall operate and maintain a continuous temperature monitor which measures the secondary combustion chamber temperature, in degrees Fahrenheit. The monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations.

D. Reporting Requirements

- The permittee shall submit deviation (excursion) reports within 30 days of when the deviations occur, which provide the following information for each period during which the secondary combustion chamber exhaust gas temperature fell below the applicable limitations:
 - the date of the excursion;
 - the time interval over which the excursion occurred;
 - the temperature values during the excursion;

E. Testing Requirements

- Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- Emission Limitation:
PE shall not exceed 0.20 pound per hour.

Applicable Compliance Method:

This limit is based on the maximum rated capacity of the emissions unit (200 pounds of waste per hour) multiplied by the allowable emission limit of 0.10 pound particulate/100 pounds charged.

F. Miscellaneous Requirements

None

Recordkeeping

- ★ Emissions unit specific or rule based
- ★ Designed to ensure equipment operates properly
- ★ Emissions tracking used to demonstrate ongoing compliance



Why Have Reporting Requirements?

- ★ Method of notifying regulatory authorities of the following:
 - ★ equipment malfunctions
 - ★ (un)scheduled maintenance
 - ★ emission releases
 - ★ failure to follow permit requirements
 - ★ fee reports



What Requires Operator to Submit a Report?

- ★ Permits:
 - ★ quarterly, annual, other
- ★ Rules:
 - ★ immediately, within 30 days, within 45 days
- ★ Federal rules:
 - ★ quarterly, annual, other
- ★ Emergency Response



Where are Reporting Requirements Found?

- ★ Issued PTI and/or PTO:
 - ★ general terms and conditions (T&C)s
 - ★ emission unit specific T&Cs
- ★ Rules:
 - ★ OAC rules 3745-21-09, 3745-15-06, etc.
 - ★ federal rules MACT, NSPS, etc.



Malfunctions

- ★ Breakdown of control equipment that results in a violation (i.e., fabric filter, incinerator, carbon absorber, etc.)
- ★ Scheduled/unscheduled maintenance to avoid a malfunction
- ★ Report malfunction immediately



Malfunctions

OAC 3745-15-06(B):

- ★ Notify Ohio EPA or Local Air Authority
- ★ Written report within 2 weeks if longer than 72 hours
- ★ If reported properly, then not included in quarterly deviation report



Malfunctions

- ★ Identification of and location of source
- ★ Duration of breakdown
- ★ Quantity of release
- ★ Statement saying
 - ★ why shutdown of EU was not possible
 - ★ breakdown time is reasonable
 - ★ interim control measures used
 - ★ used PM&MA plan, if applicable

Permit Reports

Quarterly Deviations include departures from the following:

- ★ emission limits
- ★ operational restrictions
- ★ control device operating parameters



Permit Reports

Include for each quarterly deviation:

- ★ probable cause(s)
- ★ any corrective actions or preventative measures



Permit Reports

Negative declaration reports are needed

- ★ “If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter...”
- ★ In other words, facilities must submit a report each and every quarter, regardless of whether or not deviations occurred

Rule Based Reports

- ★ Found in issued air permits
- ★ Reporting frequency will be specified
- ★ Examples:
 - ★ within 30 days, within 45 days, etc.
 - ★ See handout



Permit Reports

Synthetic minor facilities may have additional reporting

- ★ annual emissions
- ★ annual production
- ★ other unique reports



Fee Reports

- ★ Actual emissions determine fee
- ★ Different for Minor facilities and Synthetic Minor facilities
- ★ All fee reports are mailed in February and due April 15
- ★ Invoice sent later by Ohio EPA



Blue Sheets

- ★ Permittee reports emissions
- ★ Ohio EPA confirms and calculates fee
- ★ Invoice based upon the amount reported



Blue Sheets

- ★ 2 year reporting cycle (2004, 2006, 2008...)
- ★ Annual fees are:
 - ★ 0-9 tons = \$100.00
 - ★ 10-49 tons = \$200.00
 - ★ 50-99 tons = \$300.00
 - ★ 100 or more = \$700.00

Synthetic Minor Fee Reports

- ★ Permittee reports emissions
- ★ Ohio EPA confirms and calculates fee
- ★ Invoice based upon the amount reported



Synthetic Minor Fee Reports

- ★ Emissions are calculated on an emissions unit basis
- ★ Annual reporting cycle
- ★ Annual fee ranges from \$170.00 to \$3,350.00



Current Frustrations

- ★ Need to modify both PTI and PTO
- ★ Where is my permit?
- ★ Quarterly, semi-annual or annual reports?
- ★ Different renewal dates for each unit



PTIO: What?

- ★ Permit to Install and Operate (PTIO)
 - ★ allows installation and operation
 - ★ minor and Synthetic Minor facilities
 - ★ one application
 - ★ simple modifications
 - ★ PTIO will replace all previous PTI and PTO permits for an emissions unit



PTIO: What?

- ★ Entire facility renews on same date
 - ★ all PTIOs expire on the same date
 - ★ renewal applications will be due together
- ★ 10 yr renewal for minor sources
- ★ 5 yr renewal for Synthetic Minor sources



PER

- ★ Permit Evaluation Report (PER)
 - ★ annual report for deviations
 - ★ will replace most quarterly reports
 - ★ covers all units issued a PTIO
- ★ Does not replace rule-based reporting



PER

- ★ OEPA will mail:
 - ★ reminder and PER form
 - ★ only units that have been issued a PTIO
- ★ Will ask for specific information
- ★ Due date is one of 4 days during year



PTIO: When?

Early 2008!!



Helpful Hints

- ★ Ohio EPA goal is compliance, NOT enforcement
- ★ Know your Ohio EPA contact
- ★ Applications:
 - ★ complete forms to allow for maximum operational flexibility
 - ★ fill out the forms to the best of your ability
 - ★ ask questions
 - ★ communicate urgency



Helpful Hints

- ★ Make recordkeeping as simple as possible
- ★ Develop a pattern for recordkeeping and report submittals
- ★ Foster a good relationship with neighbors



PTIO Comments

- ★ More opportunities to comment on forms, guidance, rules in future
- ★ PTIO electronic news via email
 - e-mail majordomo@lists.epa.state.oh.us
 - enter “subscribe PTIO” as the message
- ★ PTIO info website:
<http://www.epa.state.oh.us/dapc/permits/ptio.html>

Where Can I Get Help?

Ohio EPA District Offices

(permit application processing, inspections, reporting)

See map on conference CD

Division of Air Pollution Control HQ

(new changes, regulations, web site, fees, air quality)

614-644-2270

www.epa.state.oh.us/dapc



Where Can I Get Help?

Office of Compliance Assistance and Pollution Prevention (OCAPP)

(questions, site evaluations, permit application help, publications, workshops)

1-800-329-7518

Environmental Consultants – yellow pages



Questions?

