

OHIO AIR PERMITTING INSTRUCTIONS

Tier 2 Minor Source Conventional Wellpads

Ohio Oil & Gas Association

Prepared By:

TRINITY CONSULTANTS

440 Polaris Parkway
Suite 275
Westerville, Ohio, 43082
614-433-0733

November 2024

Project 243601.0128



TABLE OF CONTENTS

GENERAL INFORMATION	1
Using this Guide.....	1
Units of Measure.....	1
EXEMPTIONS	2
Permanent Categorical Exemptions	2
De Minimis Exemption	2
EMISSIONS CALCULATIONS	3
Heaters	3
Natural gas-fired engines (e.g., for pump jacks, compressors, generators).....	3
Diesel-fired engines.....	3
Equipment leaks	4
Roadway emissions.....	4
Tank emissions	4
Loading emissions.....	4
Blowdowns	5
APPLICATION NARRATIVE	6
Overview of proposed project	6
Process description	6
Regulatory applicability.....	6
Common federal regulations that could apply to wellpads	6
Common Ohio EPA regulations that could apply to wellpads.....	7
BAT Determination.....	7
AIR DISPERSION MODELING	8
Criteria Pollutant Modeling Analysis	8
Air Toxics Modeling Analysis	9
Air Modeling Software	9
PROCESS FLOW DIAGRAMS	10
APPLICATION FORMS AND MAPS	11
Wellpad GP application.....	11
Forms - General Permits – Oil and Gas Well-site Production Operations.....	11
Map	11
Roadways and Parking Areas GP application	11
Forms - General Permits - Paved and Unpaved Roadways and Parking Areas.....	11
Map	11
PTIO application	11
Forms - Permit Application Forms	11
Map	11
AIR SERVICES	12
Registering for Air Services	12
Registering a New Facility in Air Services	12
Creating an Air Permit Application in Air Services.....	13

APPLICATION HARDCOPY SUBMITTALS (OPTIONAL)	14
PERMITTING FEES	15
Methods of payment	15

This document outlines the instructions for preparing and submitting Ohio Environmental Protection Agency (Ohio EPA) General Permit (GP) or case-by-case Permit to Install and Operate (PTIO) air permit applications for conventional wellpads that are minor sources.

Using this Guide

This edition of the guide addresses facilities that consist of the following equipment (i.e., “Tier 2 Facilities”).

- ▶ Wellheads,
- ▶ Gas processing units or separators,
- ▶ Storage vessels,
- ▶ Natural gas-fired engines, and
- ▶ Diesel-fired engines.

This guide is divided into sections based on the elements required for GP and PTIO air permit applications:

- ▶ Exemptions – a brief discussion of exemptions for which specific pieces of equipment may be eligible
- ▶ Emissions Calculations – a brief list of generally available sources of data and software packages for calculating emissions from conventional wellpad equipment.
- ▶ Application Narrative – recommendations for providing an overview of the proposed project, an applicable state and federal regulatory applicability analysis, and a Best Available Technology (BAT) determination for each pollutant from new/modified emission units.
- ▶ Process Flow Diagrams (PFDs) – recommendations for preparing a simplified process flow diagram.
- ▶ Application Forms and Maps – a list of the forms and maps that must be included in the application package.
- ▶ Air Services – instructions for registering, accessing, and interfacing with Ohio EPA’s web-based Air Services system for submitting applications.
- ▶ Optional Hardcopy Submittal – Although Ohio EPA encourages applicants to use the Air Services System, this section will also describe options for compiling and submitting a hardcopy application.
- ▶ Permitting Fees – a description of Ohio EPA’s fee schedule and methods of payment.

Website addresses and references have been included in this instructions document for Ohio EPA’s guidance documents, regulations, forms, etc.

Units of Measure

Ohio EPA commonly establishes emission limits and regulatory thresholds on the basis of mass (e.g., pounds per day or tons per year). Because many conventional operators measure and monitor their operations using volumetric units (e.g., thousand standard cubic feet [mscf]), this guide attempts to convert relevant emission limits and regulatory thresholds into units of mscf. Any numerical value presented in [brackets] has been converted to mscf assuming a gas molecular weight of 18 pounds per pound mole and a volatile organic compound (VOC) concentration of five (5) percent by weight. These converted volumetric thresholds and limits will vary based on the specific composition and properties of the gas at each site.

This section identifies certain pieces of equipment that may be exempt from air permitting requirements. Qualifying for these exemptions does not imply that the entire production facility is exempt from permitting; rather, these exemptions simply relieve applicants of the obligation to submit application forms for the specific pieces of equipment that qualify for an exemption.

Permanent Categorical Exemptions

Ohio EPA has published a list of equipment in [OAC 3745-31-03](#) Section (B)(1) for which application forms would not be required as part of an air permit application. Examples of these equipment types include the following:

- ▶ Natural gas-fired heaters rated at maximum heat input capacities less than 10 million British thermal units per hour (MMBtu/hr),
- ▶ Emergency engines with a power rating less than 50 horsepower (hp), and
- ▶ Roadways with fewer than 3,800 vehicle miles traveled per year, particulate matter (PM) emissions less than 5 tons per year (tpy), and, for PM less than 10 microns (PM10), emissions less than 1.45 tpy.

De Minimis Exemption

If a piece of equipment has potential or actual emissions of any air contaminant less than 10 pounds per day (lb/day) [4.21 mscf/day] and less than 1 tpy of any hazardous air pollutant (HAP) or combination of HAP, then the equipment may be exempt from permitting as de minimis. See [OAC rule 3745-15-05](#) for additional details and eligibility criteria.

EMISSIONS CALCULATIONS

Emissions calculations are required to be submitted with PTIO applications. For facilities that are applying for GP coverage, Ohio EPA has not historically required submittal of emissions calculations, but GP applicants should still calculate emissions to document internally that the total facility emissions will be below the emission limits in the GP and also at or below the thresholds listed in the Qualifying Criteria document associated with the type of GP for which coverage is being requested.

In general, potential to emit should be calculated based on the maximum throughput or maximum nameplate capacity for the maximum hours per year (8,760 hours) based on 24 hours/day, 7 days/week, and 52 weeks/yr. Individual PTIO applications can request hours or throughput limitations as part of the permit, but facilities seeking GP coverage would not be able to request specific throughput or hours limitations.

The following subsection provides sources of emission factors and emission calculation techniques for common sources at conventional wellpads.

Heaters

- AP-42, Fifth Edition, Volume I Chapter 1: External Combustion Sources. [Section 1.4](#) contains US EPA published emission factors for the combustion of natural gas.
- If Low-NOx burners are utilized, the manufacturer should provide the emission factors. Section 1.4 can be used for all other pollutants for which there was no manufacturer's provided emission factor.

Natural gas-fired engines (e.g., for pump jacks, compressors, generators)

- Manufacturer's or catalyst vendor's supplied emission factors for NOx, CO, VOC, and formaldehyde
- If the engine is US EPA certified, certification data for NOx, CO, VOC.
- Test data for NOx, CO, VOC, and/or formaldehyde for engine of the same make, model, and hp
- AP-42 Fifth Edition, Volume I [Chapter 3.2: Natural Gas-fired Reciprocating Engines](#) contains US EPA published emission factors for all other pollutants for which manufacturer's, certification or test data are unavailable. Factors are specific to whether the engine is 2 cycle, 4 cycle rich burn, or 4 cycle lean burn.
- Emissions quantified cannot be greater than the standards required in 40 CFR 60 Subpart JJJJ and/or the General Permit

Diesel-fired engines

- Manufacturer's or catalyst vendor's supplied emission factors for NOx, CO, VOC, and PM
- If the engine is US EPA certified, certification data for NOx, CO, VOC, and PM.
- Test data for NOx, CO, VOC, and/or PM for engine of the same make, model, and hp
- AP-42, Fifth Edition, Volume I [Chapter 3.3 Gasoline And Diesel Industrial Engines](#) contains US EPA published emission factors for diesel engines **less than or equal to 600 hp** for all other pollutants for which manufacturer's, certification, or test data are unavailable.
- AP-42, Fifth Edition, Volume I [Chapter 3.4 Large Stationary Diesel and All Stationary Dual-fuel Engines](#) contains US EPA published emission factors for diesel engines **greater than 600 hp** for all other pollutants for which manufacturer's, certification, or test data are unavailable.
- Emissions quantified cannot be greater than the standards required in 40 CFR 60 Subpart IIII and/or the General Permit

- Ohio EPA also provides guidance on how to speciate a NO_x + NMHC¹ combined emission factor in their document [*Calculation of NO_x Emissions for Compression Ignition \(CI\), Internal Combustion Engines \(ICE\)*](#).

Equipment leaks

- Component counts can be determined using site specific information or by estimating the number of components using default average component counts provided in 40 CFR Part 98 Subpart W, [Table W-1B](#).
- For leak rates, whole gas² emission factors
 - ◆ [40 CFR Part 98 Table W-1A](#)
 - ◆ [US EPA's Protocol for Equipment Leak Emission Estimates, EPA 453/R-95-017, November 1995](#), Table 2-4. Oil and Gas Production Operations Average Emission factors

Roadway emissions

- Paved roads - AP-42 Fifth Edition, Volume I [Chapter 13.2.1](#)
- Unpaved Roads - AP-42 Fifth Edition, Volume I [Chapter 13.2.2](#)

Tank emissions

- Flashing Losses
 - ◆ [BR&E ProMax®](#) is a process simulation program that can be used to estimate VOC and HAP flashing emissions from tanks. This program must be purchased. Users must provide stream sampling data and operating parameters (e.g., stream flow rates, temperatures, and pressures) as inputs to the model.
 - ◆ [Aspen HYSYS®](#) is a process simulation program that can be used to estimate VOC and HAP flashing emissions from tanks. This program must be purchased. Users must provide stream sampling data and operating parameters (e.g., stream flow rates, temperatures, and pressures) as inputs to the model.
- Working & Standing Losses
 - ◆ AP-42, Fifth Edition, Volume I [Chapter 7: Liquid Storage Tanks](#) provides methodologies for estimating standing and working emissions.
 - ◆ [BR&E ProMax®](#) is a process simulation program that can be used to estimate VOC and HAP working/standing emissions from tanks. ProMax quantifies these emissions using AP-42's methodology outlined in Chapter 7.1. This program must be purchased. Users must provide stream sampling data and tank parameters (e.g., exterior paint color, tank height, and tank diameter) as inputs to the model.

Loading emissions

- ◆ AP-42, Fifth Edition, Volume I [Chapter 5.2 Transportation and Marketing of Petroleum Liquids](#)
- ◆ [BR&E ProMax®](#) is a process simulation program that can be used to estimate VOC and HAP loading emissions. ProMax quantifies these emissions using AP-42's methodology outlined in Chapter 5.2. This program must be purchased.

¹ Non-methane hydrocarbon

² VOC and HAP compositional data is needed to determine their respective emissions using a whole gas emission factor

Blowdowns

It is important to note that these activities are **not authorized** under a General Permit, so applicants either need to demonstrate de minimis eligibility (emissions less than 10 lb/day of VOC [4.21 mscf/day]) or obtain a case-by-case permit.

- ◆ Blowdown emissions are calculated based on the following:
 - Amount of gas released in standard cubic feet (scf) per release event – this number is typically based on an engineering estimate. For engines, the amount released may be provided by the vendor.
 - The number of release events per year
 - The compositional data of the gas being released
 - » Gas molecular weight
 - » Weight percent of VOC in the gas stream
 - » For individual and total HAPs, weight percent of HAP in the gas stream
- ◆ Rod packing emissions are calculated based on the following:
 - Number of compressor rod packing throws
 - Emission factor of 12 scf/hr-throw³
 - The compositional data of the gas being released
 - » Gas molecular weight
 - » Weight percent of VOC in the gas stream
 - » For individual and total HAPs, weight percent of HAP in the gas stream

³ Estimated per Marcellus Shale Coalition, Air Quality Committee, Emission Inventory Standardization Workgroup, Reciprocating Compressors, 2018.

An air permit application should include a narrative document that provides an overview of the proposed project, the type of permit that is being requested (GP or PTIO), an applicable state and federal regulatory applicability analysis, and a Best Available Technology (BAT) determination for each pollutant from new/modified emission units. This narrative can be provided in the form of a cover letter or in a report format.

Overview of proposed project

This should include the type of permit that is being applied for, where the facility is to be located, the name of the facility and a list of the equipment expected to generate air emissions. If there are any de minimis or exempt sources, a best practice is to identify and list these sources, as well, though Ohio EPA does not require notification for sources that are de minimis or are permanently exempt.

Process description

Include an overview of the process flow and how the facility operates. The description should include references to the emissions sources and how they are utilized in the facility's operation, as well as a discussion of how emissions were determined (such as using ProMax modeling for tank emissions).

Regulatory applicability

The application needs to list the Federal and State air quality regulations that commonly apply to wellpads and should discuss why they do or not apply.

Common federal regulations that could apply to wellpads

- ▶ [40 CFR 60 Subpart OOOO](#) – Crude Oil and Natural Gas Facilities – Applies to affected facilities that commenced construction, reconstruction, or modification after August 23, 2011, and on or before September 18, 2015.
- ▶ [40 CFR 60, Subpart OOOOa](#) – Crude Oil and Natural Gas Facilities – Applies to affected facilities that commenced construction, reconstruction, or modification after September 18, 2015, and on or before December 6, 2022.
- ▶ [40 CFR 60 Subpart OOOOb](#) – Crude Oil and Natural Gas Facilities – Applies to affected facilities that commence construction, reconstruction, or modification after December 6, 2022.
- ▶ [40 CFR 60 Subpart IIII](#) – Compression Ignition Combustion Engines – Affected sources include stationary compression ignition (CI) engines (e.g., diesel-fired engines) constructed (ordered) after July 11, 2005, and manufactured after April 1, 2006 (July 1, 2006 for fire pump engines), or modified or reconstructed after July 11, 2005.
- ▶ [40 CFR 60 Subpart JJJJ](#) – Spark Ignition Internal Combustion Engines – Affected sources include stationary spark ignition (SI) internal combustion engines (ICE) (e.g., gas-fired engines) constructed (ordered) after June 12, 2006.
- ▶ [40 CFR 63 Subpart ZZZZ](#) – National Emission Standards for Hazardous Air Pollutants from Reciprocating Internal Combustion Engines (RICE) – Affected sources include new RICE (either diesel-fired or gas-fired engines) installed at area sources (minor sources of HAP) on or after June 12, 2006

Common Ohio EPA regulations that could apply to wellpads

- ▶ [OAC 3745-17-07](#) – Control of Visible Particulate Emissions from Stationary Sources – limits visible particulate emissions from all stacks to less than twenty (20) percent opacity, as a six-minute average, except during periods of startup, shutdown, and malfunction specified in the rule. This rule also restricts visible emissions from unpaved roadway or parking areas in regions designated in [Appendix A](#) to OAC 3745-17-08.
- ▶ [OAC 3745-17-08](#) – Restriction of Emission of Fugitive Dust – requires the application of Reasonably Available Control Measures (RACM) to sources of fugitive dust (e.g., roadways and parking areas) located in regions designated in [Appendix A](#) to OAC 3745-17-08
- ▶ [OAC 3745-17-11](#) – Restrictions on Particulate Emissions from Industrial Processes – applies to any operation, process, or activity that releases or may release particulate emissions into the ambient air (e.g., gas-fired engines or diesel-fired engines)
- ▶ [OAC 3745-110](#) Nitrogen Oxides – Reasonably Available Control Technology – affected sources under OAC 3745-110 include any new or modified stationary combustion turbine or stationary internal combustion engine throughout the state of Ohio.

BAT Determination

BAT determinations are not required for sources applying for coverage under Ohio EPA's GPs. However, they are required as part of an individual PTIO application.

Ohio EPA has published guidance regarding BAT determinations which can be found online: [Guidance Concerning Best Available Technology \(BAT\) Determinations](#). Sources that have potential emissions less than 10 tpy [8,422 mscf/year] for a regulated pollutant are not required to complete a BAT analysis. Therefore, only regulated pollutants that have a potential to emit (PTE) over 10 tpy [8,422 mscf/year] would need to have a BAT analysis completed for the source.

Ohio EPA issued a memo in February 2014 indicating that permits filed on or after August 3, 2009, must go through an interim case-by-case BAT procedure: [Final20140207Post090803BATv11.pdf](#)

Determine BAT on a case-by-case basis by reviewing past BAT determinations and determining the format for the BAT limit. This format could be work practices, source design characteristics or design efficiency of applicable air contaminant control devices, raw material specifications or throughput limitations averaged over a 12-month rolling period, or monthly allowable emissions averaged over a 12-month rolling period.

AIR DISPERSION MODELING

Air dispersion modeling is occasionally required to show that a source will not violate Ohio EPA's policy that no new source exceeds the Ohio Acceptable Incremental Impact (AII) levels or results in ground-level concentrations surpassing Ohio EPA's Maximum Allowable Ground Level Concentrations (MAGLCs) for toxic air pollutants. Ohio EPA has provided specific guidance in [Engineering Guide #69: Air Dispersion Modeling Guidance](#) and in [Engineering Guide #70: Air Toxics Analysis](#). Projects triggering air dispersion modeling requirements as described in this section are generally ineligible for Ohio EPA's GP and must obtain a case-by-case permit.

Criteria Pollutant Modeling Analysis

As outlined in the guidance document, increases in allowable emissions of criteria pollutants from all new or modified sources are required to be evaluated to determine whether the increases in allowable emissions exceed the Ohio modeling significant emission rates (SERs). For each criteria pollutant for which the increase in allowable emissions exceeds the applicable SER, the project must be evaluated to demonstrate that the ambient impact is less than the Ohio AII levels. The Ohio Modeling SER thresholds are noted below in Table 1.

Table 1. Ohio Modeling Significant Emission Rates

Pollutant	Ohio Modeling SER (tpy)	Ohio Acceptable Incremental Impact ($\mu\text{g}/\text{m}^3$)
PM ₁₀	15	8.5 – Annual
		15 – 24-hr
PM _{2.5}	10	2 – Annual
		4.5 – 24-hr
NO _x	40	12.5 – Annual
		188 – 1-hr
SO ₂	40	10 – Annual
		45.5 – 24-hr
		256 – 3-hr
		196 – 1-hr
CO	100	2,500– 8-hr
		10,000 – 1-hr

Air Toxics Modeling Analysis

Ohio EPA's Engineering Guide #69 also requires air dispersion modeling for each toxic pollutant for which the increase in allowable emissions exceeds one (1) tpy.⁴ Toxic air contaminants commonly released from oil and gas production operations include hexane, benzene, toluene, ethylbenzene, and xylene. The air dispersion modeling must demonstrate that the ambient incremental impact is less than the MAGLCs established in accordance with Ohio EPA guidance as required by ORC 3704.03(F)(4)(b).⁵ Refer to Ohio EPA's DAPC [Engineering Guide 70 "Air Toxics Analysis"](#) for further guidance.

Air Modeling Software

If modeling is required, the applicant must use the AERMOD or AERSCREEN software provided by US EPA's [Support Center for Regulatory Atmospheric Modeling](#). Consider contacting third-party firms for assistance with any required air dispersion modeling.

⁴ Air toxic pollutants include any pollutant listed in OAC 3745-114-01.

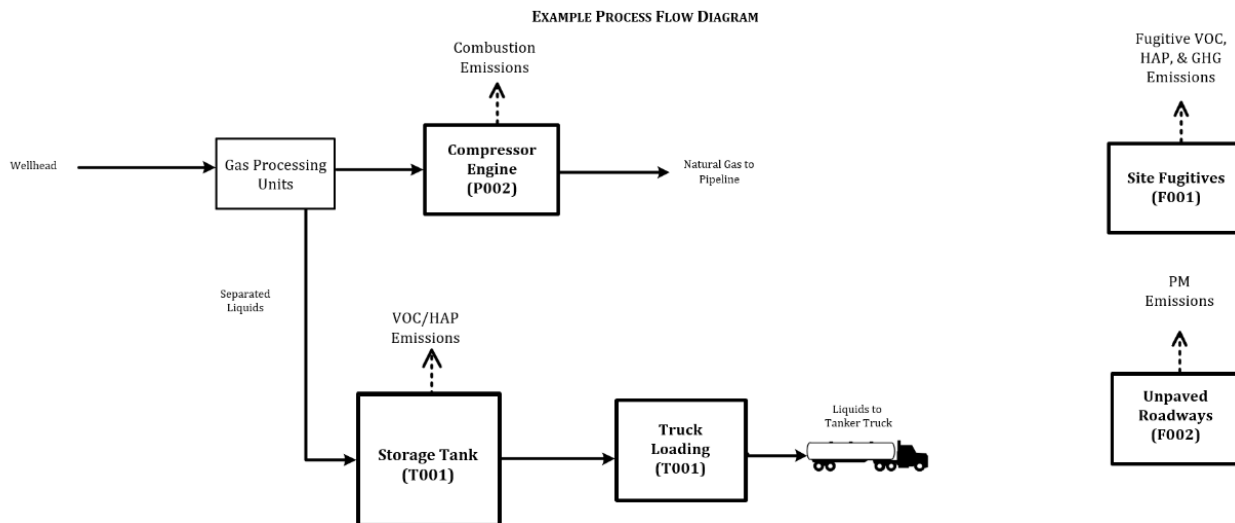
⁵ ORC 3704.03(F)(4)(b) requires that applicable MAGLCs be determined in accordance with Option A: Review of New Sources of Air Toxic Emissions, Ohio EPA Air Quality Modeling and Planning Section (May 1986).

PROCESS FLOW DIAGRAMS

A process flow diagram (PFD) is required to be submitted with a GP or PTIO application. The PFD represents the information provided in the process description and should contain the following:

- A representation of the progression of the entire process from the inlet to the facility to the outlet of the facility
- Emission units being permitted, including control equipment
- The air emissions released from each process
- The flow of oil, gas, produced water into and out of each emission unit

An example of a simplified process flow diagram is shown below.



APPLICATION FORMS AND MAPS

Ohio EPA requires certain forms and maps to be submitted as part of a GP or PTIO permit application. Forms are not required to be completed for de minimis or exempt sources.

Wellpad GP application

Forms - [General Permits – Oil and Gas Well-site Production Operations](#)

- ▶ Qualifying Criteria
- ▶ PTIO Application Forms Sections 1 and 2 (only required if not submitting in Air Services)
- ▶ EAC Form 3100 Process Operation – use this form for fugitive emissions
- ▶ EAC Form 3104 Storage Tank
- ▶ EAC Form 3862 Stationary Internal Combustion Engines – use this form for natural gas-fired and diesel fired engines

Map

- ▶ Must include a map of occupied structures within a 1-mile radius.

Roadways and Parking Areas GP application

Forms - [General Permits - Paved and Unpaved Roadways and Parking Areas](#)

- ▶ PTIO Application Forms Sections 1 and 2 (only required if not submitting in Air Services)
- ▶ Qualifying Criteria
- ▶ EAC Form 3111 Roadways and Parking Areas

Map

- ▶ Must include a map of the traffic routes.

PTIO application

Forms - [Permit Application Forms](#)

- ▶ PTIO Application Forms Sections 1 and 2 (only required if not submitting in Air Services)
- ▶ EAC Form 3100 Process Operation – use this form for fugitive emissions
- ▶ EAC Form 3104 Storage Tank
- ▶ EAC Form 3862 Stationary Internal Combustion Engines – use this form for natural gas-fired and diesel fired engines
- ▶ EAC Form 3107 Loading Rack for Liquid materials

Map

- ▶ Must include a map of occupied structures within a 1-mile radius.

Ohio EPA utilizes eBusiness Center as the web portal for electronic submittals. Air Services is available in eBusiness to manage facility air permit applications and data. Air Services allows permit applications, emissions reports, permit reporting, and facility data updates to be created and submitted electronically and contains copies of past and current air permit applications, issued permits, compliance reports and correspondences for a facility. Instructions for accessing eBusiness Center can be found here [OHIDStepbyStepInst.pdf \(ohio.gov\)](#). Ohio EPA also has published [Air Services Training Videos](#) on their website that can be used as a resource.

Registering for Air Services

- ▶ Create an OH|ID account here: <https://ohid.ohio.gov/wps/portal/gov/ohid/>
- ▶ Once an account has been created, locate the Ohio EPA eBusiness Center in the app store by searching for "Ohio EPA" or filter for "Environmental Protection Agency" and select the Ohio EPA eBusiness Center tile.
- ▶ If you do not already have an eBusiness account with a matching email address, you will see a "Create New Account" screen where you can enter in the appropriate information, then click "Create."
- ▶ You will receive an email that your account has been created.
- ▶ If this account will be used to submit air permit applications, the user will need to obtain a Personal Identification Number (PIN) by clicking the "Request New PIN" button and completing the online LexisNexis Identity Verification Process. Note that individuals submitting permit applications must meet the criteria described in [Ohio EPA's Guidance for Ensuring the Correct Person is Acting as the Responsible Official for a Facility Subject to Air Pollution Regulations](#)
- ▶ If the facility at which the project is occurring has already been registered in the Air Services System, the PIN-holder with signatory authority can click the "Add Facility" button to search for the site and request access. If the facility has not been registered in the Air Services System (e.g., a "greenfield" well), the applicant will need to contact Ohio EPA to register the new site as described in the following section.
- ▶ The PIN-holder with signatory authority can also delegate access to other users (e.g., company personnel or consultants).

Registering a New Facility in Air Services

- ▶ Send an email to Ms. Linda Lazich at Ohio EPA (linda.lazich@epa.ohio.gov) requesting registration of a new facility and include the following information in the email.
 - The legal name of the owner/operator of the new facility,
 - The name of the new facility,
 - The street address of the new facility, if available. Because street addresses are commonly unavailable for remote wellpads, the applicant may alternatively provide a general description of the location using nearby landmarks (e.g., "northwest of the intersection of County Roads XY and AB"),
 - The county in which the new facility will be located, and
 - The latitude and longitude for the new facility in decimal degrees.
- ▶ Ohio EPA will typically respond within approximately one (1) week with the Facility Identification Number for the new site.
- ▶ The PIN-holder with signatory authority can click the "Add Facility" button to search for the site and request access.
- ▶ The PIN-holder with signatory authority can also delegate access to other users (e.g., company personnel or consultants).

Creating an Air Permit Application in Air Services

Please refer to the presentation slides included as an attachment to this memo for screenshots illustrating the process for creating a facility profile and an air permit application in Air Services.

APPLICATION HARDCOPY SUBMITTALS (OPTIONAL)

Ohio EPA encourages applicants to submit air permit applications via Air Services in eBusiness. However, if a hardcopy application is submitted, then the application package must contain printouts of all the following elements. Please note that Ohio EPA generally processes hardcopy applications less quickly than applications submitted via eBusiness because agency personnel must first manually transfer all information from the hardcopy forms into Ohio EPA's electronic database.

- ▶ Application narrative
- ▶ Emissions calculations
- ▶ Air Dispersion Modeling Report, if applicable, or discussion why air dispersion modeling was not required
- ▶ Process flow diagram
- ▶ Complete application forms – note that additional general forms must be completed and included for a hardcopy submittal. See Application Forms section of this memo.

Applications, in general, would need to be mailed via postal service to the appropriate [Ohio District Office](#) or [Local Air Agency](#) with jurisdiction over the county where the facility is/will be located. See also [District Office and Local Air Agency Jurisdiction map](#). It is recommended that if an application is mailed, then a tracking system be utilized either through United States Postal Service (USPS) certified mail, UPS, or FedEx, so that applicants will have verification that the application package has been delivered and received.

An invoice will be generated by Ohio EPA's Division of Air Pollution control once the permit has been issued. The total fee is due within thirty (30) days of the receipt of the invoice. The fee assessed is based on the schedule which Ohio EPA updates periodically. The 2023 fee schedule is available at the following link ([feeschedule.pdf](#)).

Methods of payment

- ▶ Online in eBusiness via credit card or by paying through the Automated Clearing House (ACH)
 - Log into eBusiness and select "Pay Ohio EPA Fees Online" in the Service section.
 - The Payment Service screen will allow the user to search for the Revenue ID number published on the invoice.
 - Ohio EPA does not assess service fees for ACH payments, but an Ohio EPA eBusiness PIN is required.
 - Service fee of 1.9% of the total amount is charged to payments made by credit card.
- ▶ Check made payable to "Treasurer, State of Ohio" sent via postal service to PO Box 77005, Cleveland, Ohio, 44194-7005. Must include the Revenue ID for the facility noted on the invoice.

- [Owner/Contact](#)
- [Application\(s\)](#)
- [Permit\(s\)](#)
- [Emissions Report\(s\)](#)
- [Reporting Category](#)
- [Compliance Report\(s\)](#)
- [Correspondence](#)
- [Facility Profile History](#)
- [Event Logs](#)
- [References](#)

[Air Services Home](#) >

Air Services Home

Facility Information

Facility Name: Facility ID: Permitting Classification: NTV
 Address1: Address2: County:
 City: State: Ohio Zip:

[View Facility Profile](#)

In Progress Tasks

Select	Task Type	Task Description	Dependent on Task	Created Date	User Name
<input type="radio"/>	Permit-by-rule Notification	Permit-by-rule Notification	Facility Profile Change	9/18/2019	
<input type="radio"/>	PTI/PTIO Permit Application	PTI/PTIO Application	Facility Profile Change	9/17/2019	
<input type="radio"/>	Facility Profile Change	Facility Profile Change	Facility Contact Change	11/6/2019	
<input type="radio"/>	Facility Contact Change	Facility Contact Change	N/A	11/6/2019	

[Delete](#)

[Printable view](#)

[Export to excel](#)

New Tasks

Select from the list below to create a new task [Hide How to Claim Trade Secrets](#)

NOTE: All information entered into Air Services or uploaded as an attachment is a public record once submitted (i.e., PINed) unless expressly identified as a trade secret using the mechanism(s) provided for specific fields. Ohio EPA has provided an option to request specific data fields or attachments to be held (screened from public view) as trade secret. Data fields in any Air Services form screens (i.e., facility profile, applications, reports, etc.) can only be protected as a trade secret in the software if the mechanism accompanies the specific field. If you believe a specific field should be withheld as a trade secret, but is not programmed with the trade secret mechanism, please contact Air Services customer support at (614) 644-3621 to discuss options BEFORE submitting to Ohio EPA.

[Facility Profile Change](#)

[Owner/Contact Change](#)

[Permit-by-rule Notification](#)

[PTI/PTIO Application \(Initial, Renewal, Modification, General Permit\)](#)

[Title V PTO Application \(Initial, Renewal, Modification\)](#)

[Title IV Acid Rain Application](#)

[Request Administrative Permit Modification](#)

[Fee Emissions Report \(can also include EIS and ES\)](#)

[Permit Evaluation Report \(PER\)](#)

[Emissions/Stack Testing](#)

[CEMS/CERMS/COMS](#)

[Scheduled Maintenance Bypass Request](#)

[Other Compliance Report \(ex. Quarterly Deviation Reports\)](#)

3rd level menu

Click links here to
create a new task

Click here to
view
submitted
Facility Profile

3rd Level Menu on Air Services



► View & download facility data

- Submitted permit applications
- All existing permits
- Historical FERs
- Compliance reports (submitted in Air Services)
- Correspondence
 - ◆ Invoices, reminder letters, NOV, etc.
- Event logs
 - ◆ Status of PTI/PTIO applications
 - ◆ Ohio EPA changes to Facility Profile

- [Emission Units](#)
- [Control Equipment](#)
- [Egress Points](#)

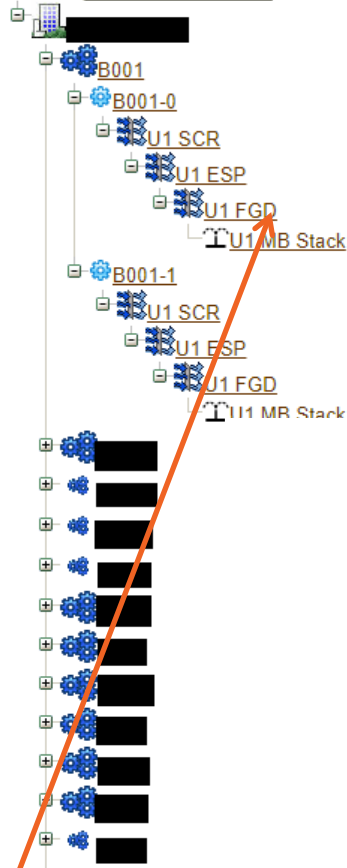
Facility Profile

Facility ID: [REDACTED]
Facility Name: [REDACTED]

Current Permitting Classification: TV
Operating Status: Operating

Facility Profile Start Date: [REDACTED]
Facility Profile End Date: Cu

[Expand Facility Tree](#)



Facility Information

Facility ID: [REDACTED]
Facility Name: [REDACTED]
Facility Description: [REDACTED]
Address1: [REDACTED]
Address2: Jefferson, [REDACTED]
City: [REDACTED] State: Ohio Zip: [REDACTED]
County: Jefferson
Effective Date of Address:
Portable: ☐
Operating Status: Operating
Permitting Classification: TV PER Due Date: None
Transitional Status: None
Title V Permit Status: Extended Title V Certification Report Due April 30
Date:
Emissions Reporting Category for 2019: TV Status: Submitted
Anticipated Emissions Reporting Category for 2020: TV

Facility Details

Core Place ID: [REDACTED] MultiEstablishment ID: [REDACTED]
Federal SCSC ID: [REDACTED]

Latitude and Longitude

Decimal Latitude: [REDACTED]
Decimal Longitude: [REDACTED]

[ArcGIS Maps reference information](#)

The Facility Tree displays emission units, processes, control equipment, egress points, & the relationship between each.

Common Facility Tree Icons



facility Links to Facility Info



emission units Links to EU Info (equip ID, description, installation date)



processes Links to Process Info (process description, SCC)



control equipment Links to Control Equipment Info (type, CE%)



egress points Links to Stack Info (height, diameter, exhaust flow)



Disassociated CEs



Disassociated Eg.
Points

} Indicates object is not associated with a process

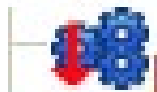


Invalid EUs

Indicates erroneous or duplicative EUs; also to be used for permitted EUs never constructed



Not Installed EUs



Permanently shutdown emission unit

Emission Unit Icons

► Title V emission unit classification



Non-Insignificant



Insignificant



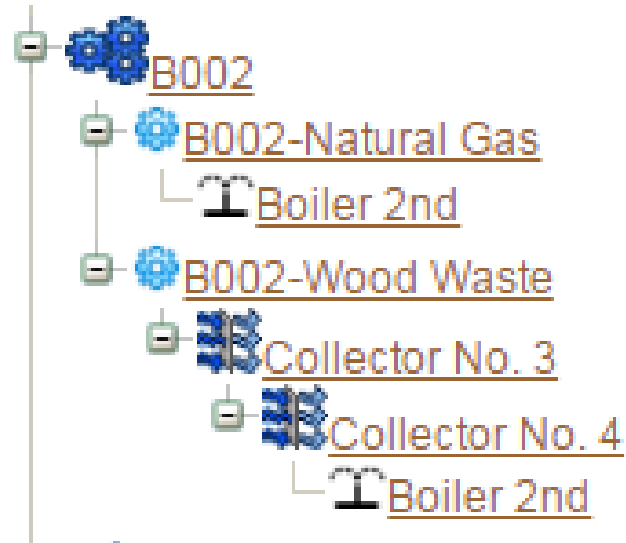
Insignificant (No Applicable Requirements)



Trivial

- Emission units designed *IEU (No Applicable Requirements)* or *Trivial* will automatically be excluded from Title V permit applications.

Facility Tree Setup



The Facility Tree should mimic the airflow as it is conveyed from the emission unit/process to the control device(s) (if any) and out the egress point(s).

Collector No. 3 and No. 4 shown in series.

Air Services Home

Facility Information

Facility Name:

Facility ID:

Permitting Classification: TV

Address1:

Address2:

County: Jefferson

City:

State: Ohio

Zip:

[View Facility Profile](#)

In Progress Tasks

Select	Task Type	Task Description	Dependent on Task	Created Date	User Name
<input type="radio"/>	Title V PTO Application	Title V PTO Application	Facility Profile Change	6/30/2020	
<input type="radio"/>	Facility Profile Change	Facility Profile Change	Facility Contact Change	7/9/2020	
<input type="radio"/>	Facility Contact Change	Facility Contact Change	N/A	7/9/2020	

[Delete](#) [Printable view](#) [Export to excel](#)

New Tasks

Select from the list below to create a new task [Hide How to Claim Trade Secrets](#)

NOTE: All information entered into Air Services or uploaded as an attachment is a public record once submitted (i.e., PINed) unless expressly identified as a trade secret using the mechanism(s) provided for specific fields. Ohio EPA has provided an option to request specific data fields or attachments to be held (screened from public view) as trade secret. Data fields in any Air Services form screens (i.e., facility profile, applications, reports, etc.) can only be protected as a trade secret in the software if the mechanism accompanies the specific field. If you believe a specific field should be withheld as a trade secret, but is not programmed with the trade secret mechanism, please contact Air Services customer support at (614) 644-3621 to discuss options BEFORE submitting to Ohio EPA.

[Facility Profile Change](#)

[Owner/Contact Change](#)

[Permit-by-rule Notification](#)

[PTI/PTIO Application \(Initial, Renewal, Modification, General Permit\)](#)

[Title V PTO Application \(Initial, Renewal, Modification\)](#)

[Title IV Acid Rain Application](#)

[Request Administrative Permit Modification](#)

[Fee Emissions Report \(can also include EIS and ES\)](#)

[Permit Evaluation Report \(PER\)](#)

[Title V Annual Compliance Certification Report \(TVCC\)](#)

[Emissions/Stack Testing](#)

[CEMS/CERMS/COMS](#)

[Scheduled Maintenance Bypass Request](#)

[Other Compliance Report \(ex. Quarterly Deviation Reports\)](#)

Select "PTI/PTIO Application" under New Tasks to initiate application

Application Options

Facility ID : XXXXXXXXXX
Request type : PTI/PTIO Application
Facility-requested correction to application : ☐
Copy data from existing application : ☐

Select "Create"

Complete PTI/PTIO General Form

- ▶ Summary of application purpose
- ▶ Specify PER due date (for PTIOs only)
- ▶ Indicate federal rules applicability (NESHAP, MACT, NSPS, RMP, etc.)
- ▶ Express PTI/PTIO option
- ▶ Permit application contact info
- ▶ Attachments

Federal Rule Applicability

3. Federal Rules Applicability

New Source Performance Standards (NSPS) :
New Source Performance Standards are listed under 40 CFR 60 - Standards of Performance for New Stationary Sources.

Select All | Select None

Select **NSPS Subpart**

☐ IIII - Stationary Compression Ignition Internal Combustion Engines

Add Subpart Delete Selected Subparts

National Emission Standards for Hazardous Air Pollutants (NESHAP) :
National Emissions Standards for Hazardous Air Pollutants are listed under 40 CFR 61. (These include asbestos, benzene, beryllium, mercury, and vinyl chloride).

Maximum Achievable Control Technology (MACT) :
The Maximum Achievable Control Technology standards are listed under 40 CFR 63 and OAC rule 3745-31-28.

Select All | Select None

Select **MACT Subpart**

☐ ZZZZ - Reciprocating Internal Combustion Engines

Add Subpart Delete Selected Subparts

Prevention of Significant Deterioration (PSD) :
These rules are found under OAC rule 3745-31-10 through OAC rule 3745-31-20.

Greenhouse Gas Pollutant Prevention of Significant Deterioration (PSD) :
These rules are found under OAC rule 3745-31-34 and 40 CFR Parts 51, 52.

Non-Attainment New Source Review :
These rules are found under 40 CFR 68.

112(r) - Risk Management Plan :
These rules are found under OAC rule 3745-31-21 through OAC rule 3745-31-27.

Title IV (Acid Rain Requirements) :
These rules are found under 40 CFR 72 and 40 CFR 73.

Dropdown list of
NSPS subparts

Attach a PTI/PTIO Report

Add an attachment

Attachments					
Attachment ID	Attachment Type	Description	Trade Secret Document	Trade Secret Justification	Event Date
	Permit application attachments and supplements		None Provided	N/A	
<div> Add Printable view Export to excel </div>					

To Delete the attachment, or to Edit attachment description, click in the Attachment ID column.

The total public and trade secret attachments size cannot exceed 2147MB. Uploading large files may take several minutes to complete upload. Please be patient.

Attachment Type :
Description :
Public File to Upload :
Trade Secret File to Upload :
Trade Secret Justification :

Please select

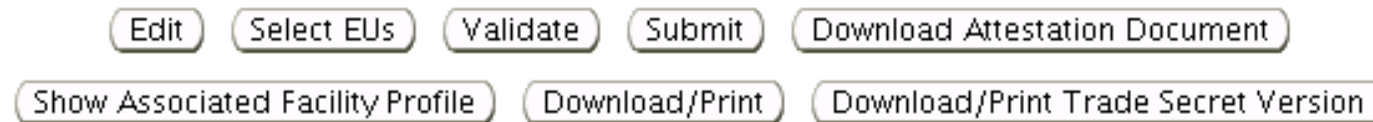
Please select
Air Toxics Modeling Results
Calculations
Cover Letter
EAC
General permit qualifying criteria
Legacy Electronic Submittal Receipt Verification
Other
Permit application attachments and supplements
Process flow diagram
Synthetic Minor strategy/facility-wide PTE analysis
Trade Secrets not supported by Air Service
Work Practice Plan

Select attachment type & upload file

Select attachment type & upload file

Select EUs

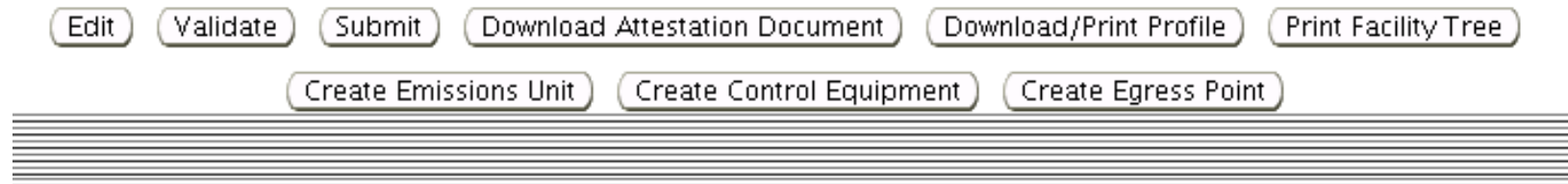
- ▶ After selecting “Save,” the following options should appear at the bottom of the screen if the form was completed properly.



- ▶ Select “Show Facility Profile” to add new emission units.
- Or-
- ▶ Click “Select EUs” to indicate which existing emission units are affected by this PTI/PTIO application.

Create a New Emissions Unit

- ▶ Select “Show Facility Profile”
- ▶ Scroll to the bottom of the page
- ▶ Select “Create Emissions Unit”



Create a New Emissions Unit

Emissions Unit Information

DAPC Emissions Unit ID:

DAPC Description:

Company Equipment ID:

Company Description:

* Operating Status:

Not Installed



Completion of Initial Installation Date:



Begin Installation/Modification Date:



Commence Operation After Installation
or Latest Modification Date:



Permitting Classification and Status

Title V EU

Not Applicable



Classification:

Exemption Status:

NA



[Permit History](#)

EIS Information

Boiler/Turbine/Generator Design Capacity:

ORIS Boiler ID:

Save

Cancel

Create a New Emissions Unit

- Back in Application Detail, click “**Select EUs**”

Facility ID: [REDACTED] PTI/PTIO Application Number: [REDACTED]
Facility Name: [REDACTED] Request type: PTI/PTIO Application

✓ PTI/PTIO Application

Emissions Units

Excluded EUs

- F001
- J001
- P001
- P002
- P003
- P004
- P005
- P006
- P007
- P008
- P009
- P010
- P011
- P801
- T006
- T008
- TMP213717
- TMP213718

Included EUs

- P007
- P008
- P009
- P801
- TMP213714
- TMP213715
- TMP213716

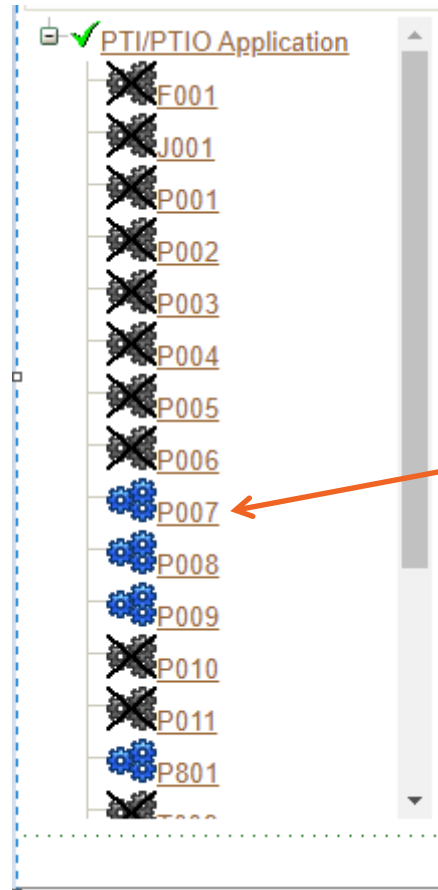
Move
Move All
Remove
Remove All

Copy data from EU: [REDACTED]

Save Return to Application

Temp ID for New Source

Check/Update EU-Specific Data



*Select the unit
in the Facility
Tree*

Update EU-Specific Information

- ▶ First click “Edit” at the bottom of the screen.
- ▶ Include the following for the EU:
 - Reason for application
 - ◆ New Installation, modification, etc.
 - ◆ Installation or modification dates
 - Emissions information (requested allowable limits)
 - BAT description
 - Request enforceable restrictions
 - CEMS info
 - Attach EAC form & process flow diagram

Installation/Modification Schedule

▼ 1. Air Contaminant Source Installation or Modification Schedule

Select reason(s) for this emissions unit being included in this application (must be completed regardless of date of installation or modification):

- ☒ New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33)
- ☐ Initial application for an air contaminant source already installed or under construction
- ☐ Modification to an existing air contaminant source/facility (for which modification has not yet begun)
- ☐ Modification application for an air contaminant source which has been or is currently being modified
- ☐ Reconstruction of an existing air contaminant source/facility
- ☐ Renewal of an existing permit-to-operate (PTO) or PTIO
- ☐ Other

When will you begin to install the air contaminant source?



OR after permit has been issued :



General Permit : ☐

Emissions Info (1/2)

Criteria Pollutants :

Pollutant	Emissions before controls (max)* (lb/hr)	Actual Emissions* (lb/hr)	Actual Emissions* (ton/year)	Requested Allowable* (lb/hr)	Requested Allowable* (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0	0	0	0	0
PM # 10 microns in diameter (PE/PM10)	0	0	0	0	0
PM # 2.5 microns in diameter (PE/PM2.5)	0	0	0	0	0
Sulfur dioxide (SO2)	0	0	0	0	0
Nitrogen oxides (NOx)	0	0	0	0	0
Carbon monoxide (CO)	0	0	0	0	0
Organic compounds (OC)	0	0	0	0	0
Volatile organic compounds (VOC)	0	0	0	0	0
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0
Highest single HAP	0	0	0	0	0

* Provide your calculations as an attachment and explain how all process variables and emissions factors were selected. Note the emission factor(s) employed and document origin. Example: AP-42, Table 4.4-3 (8/97); stack test, Method 5, 4/96; mass balance based on MSDS; etc.

** Ohio EPA Calculated - See 'Help' for more information.

Emissions Info (2/2)

Hazardous Air Pollutants (HAPs) and Toxic Air Contaminants (see instructions):

Select	Pollutant	Pollutant Category	Emissions before controls (max)* (lb/hr)	Actual Emissions* (lb/hr)	Actual Emissions* (ton/year)	Requested Allowable* (lb/hr)	Requested Allowable* (ton/year)
Add	Delete Selected HAPs						

Greenhouse Gas Pollutants :

Select	Pollutant	Emissions before controls (max)* (lb/hr)	Actual Emissions* (lb/hr)	Actual Emissions* (ton/year)	Requested Allowable* (lb/hr)	Requested Allowable* (ton/year)	CO2e** (ton/year)
Add	Delete Selected GHGs						

* Provide your calculations as an attachment and explain how all process variables and emissions factors were selected. Note the emission factor(s) employed and document origin. Example: AP-42, Table 4.4-3 (8/97); stack test, Method 5, 4/96; mass balance based on MSDS; etc.

** Ohio EPA Calculated - See 'Help' for more information.

Attach EAC and PFD

▼ Attachments

Attachment ID	Attachment Type	Description	Trade Secret Document	Trade secret Justification
<div>Add</div>				

Save

Cancel

Add an attachment

The total public and trade secret attachments size cannot exceed 2147MB. Uploading large files may take several minutes to complete upload. Please be patient.

Attachment Type :

Please select ▼

Description :

Please select

Public File to Upload :

Calculations

Trade Secret File to Upload :

Cover Letter

Trade Secret Justification :

EAC

General permit qualifying criteria

Legacy Electronic Submittal Receipt Verification

Other

Permit application attachments and supplements

Process flow diagram

Synthetic Minor strategy/facility-wide PTE analysis

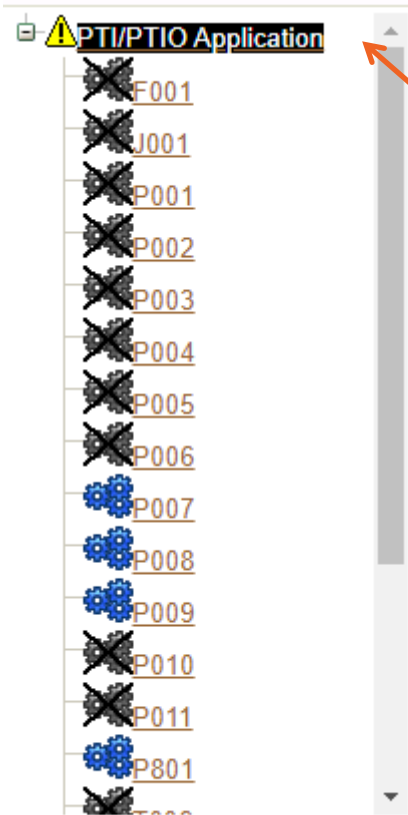
Trade Secrets not supported by Air Service

Work Practice Plan

Select attachment type & upload file

Validate and Review

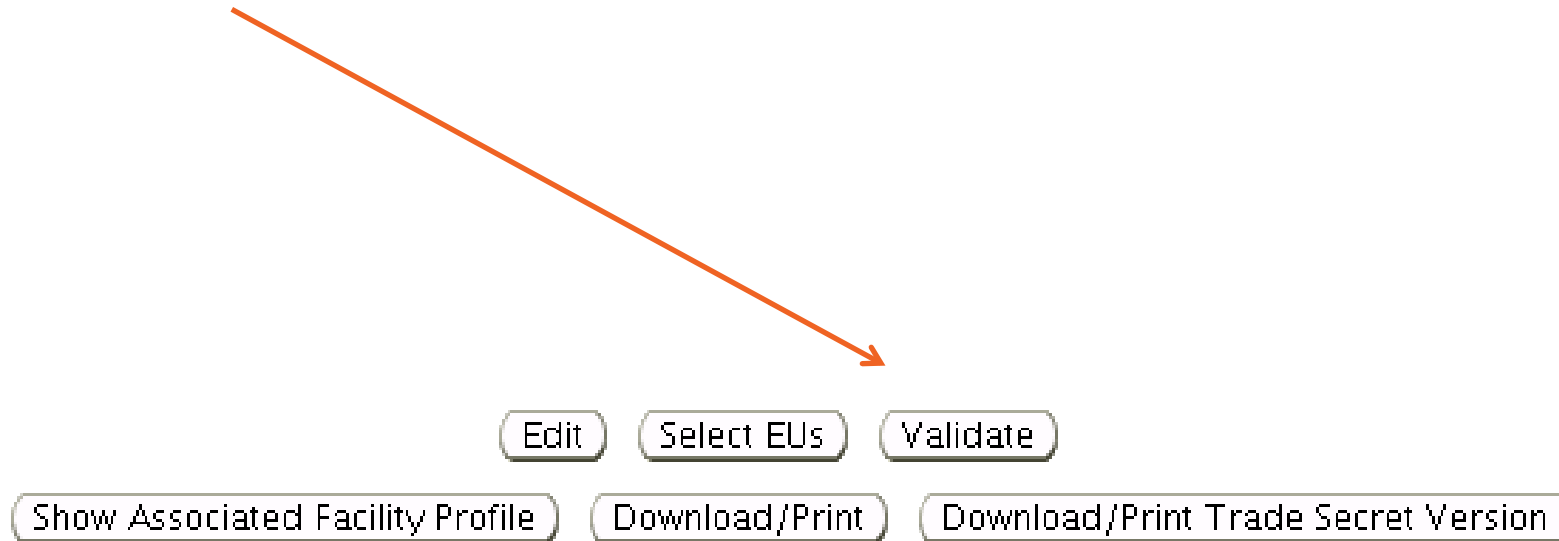
- Return to the Main Application Page




**Select "PTI/PTIO
Application" link to
return**

Validate and Review

- ▶ Select “**Validate**” at the bottom of the screen



Correct all Errors & Re-validate

Severity	EU ID	Message
ERROR	TMP216382	A process flow attachment is required
ERROR	TMP216382	An EAC attachment is required
ERROR	TMP216382	Emission unit: does not have any processes
<div>Printable view Export to excel </div>		

*Use the links to
navigate to the
errors!*

Review/Submit the Application

[Edit](#) [Select EUs](#) [Validate](#) [Submit](#) [Download Attestation Document](#)

[Show Associated Facility Profile](#) [Download/Print](#) [Download/Print Trade Secret Version](#)

Application Documents

Document Description
Printable View of PTI/PTIO Application
Printable View of Facility Profile
Application [REDACTED] zip file

Attachments that are part of the Application:

Document Description
698354: PTIO Application - [REDACTED]
696159: [REDACTED] EAC
696158: [REDACTED] PFD
696160: [REDACTED] EAC
696161: [REDACTED] EAC
696162: [REDACTED] EAC
696163: [REDACTED] EAC Form
696164: [REDACTED] EAC Form
696165: [REDACTED] EAC Form
696166: [REDACTED] EAC Form

Select a link in the above table to download a document to print.

[Close](#)

Submit with an Attestation Document

- ▶ Hard copy signature attestations
 - See Customer Services Support Center ID 2113
 - ◆ RO/AR signs an Attestation Document (hardcopy)
 - ◆ Document is scanned to pdf, attached to Air Services submittal
 - ◆ Choose “No” when asked if you are authorized by law to submit the item(s)