

Part 4: How to Avoid Being a Title V Major Source

Many smaller sources of air pollution have a high PTE but have actual emissions well below the Title V major source thresholds. If your PTE makes you a major source under Title V but your actual emissions are below the major source thresholds, you can avoid being a major source by limiting your PTE. In order to adequately limit your PTE, you will need to have a facility-wide Opt-out permit. This means that although your source has the capacity to be a major source under Title V, you have accepted limits that make you a minor source, Opting you out of the Title V program.

SYNTHETIC MINOR PERMITS

A “Synthetic Minor” permit is a type of Permit to Install used to establish enforceable limits or restricts the PTE for a **specific emission unit or process equipment**. There are many reasons why a source may want to limit an emission unit’s PTE. These include, but are not limited avoiding the requirement to add on control equipment, avoiding modeling requirements and establish limits to a level below applicable major source thresholds.

An emission unit can be a “synthetic minor” by establishing emission and operational limits, enforceable by the AQD and/or the EPA, which will reduce the emission unit’s potential to emit to below the Title V major source thresholds. Having a synthetic minor permit does not necessarily avoid the requirements of the ROP program. If you want to ensure that your sources PTE is limited to below the Title V major source thresholds, you will want to apply for a facility-wide Opt-out Permit.

OPT-OUT PERMITS

All Opt-out permits are synthetic minor permits, but not all synthetic minor permits are Opt-outs. Unlike synthetic minor permits, Opt-out permits apply to the **entire source**. The guidance document for obtaining an Opt-out permit is located on AQDs website. “Guidance for a Title V Opt-out Permit” can be found on the Internet at www.michigan.gov/air (select “Permits” then “Permits to Install/New Source Review” then “Opting Out’ of Title V”).

Like synthetic minor permits, there are several instances where a source may request an Opt-out permit, such as Opting out of PSD, an applicable NESHAP, or major non-attainment. For our purposes, we will consider Opt-out permits for Title V major sources. In order to Opt-out of Title V, your permit will need to contain a facility wide table that limits emissions from the entire source to below the applicable thresholds. If your permit does not have this table, your source has not yet Opted out of the Title V program.

Applications for Synthetic Minor and Opt-out permits that request enforceable limits of over 90% of Title V major source thresholds are required to go through a public comment period before the permit can be issued. The public notice is a 30-day period, in which the public may request a public hearing and provide comments on the proposed permit conditions.

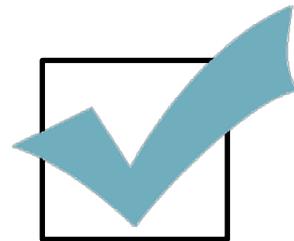
A facility that requests enforceable limits less than 90% of the Title V major source thresholds would not be required to go through a public comment period. For instance, if a facility requested an 89.0 ton VOC limit, public comment would not be required.

The following pages provide steps for completing and submitting an Opt-out permit application as well as examples of some of the Opt-out permit application requirements.

Small Business, Inc. has decided that the best Option would be to limit PTE by obtaining an Opt-out permit. This permit will keep them from being a major source but still give enough flexibility to grow and change. Components of the Opt-out permit application are on pages 4-7 to 4-11

HOW TO COMPLETE AN OPT-OUT PERMIT APPLICATION

A complete application for an Opt-out permit must include all of the following components:



- Cover letter.** Be sure to include a cover letter that clearly states that the intent of the application is to reduce the source's PTE to below applicable specific major source. The cover letter is important because it lets the permit engineer know right away why you have submitted the application. A sample cover letter is provided on page 4-7.
- Permit to Install Application Form.** Complete the Permit to Install Application form (EQP5615E). A blank application form is provided in Appendix C. You can also access the form on the Internet at www.michigan.gov/air ("Permits" tab then "Permits to Install/New Source Review" then "Application Forms, Instructions and Guidance Documents"). An example of how to complete this form for an Opt-out permit is provided on page 4-8.
- PTE Calculations.** Include the current PTE calculations for all pollutants for all the emission units located at your source. Part 2 of this workbook explains how to calculate PTE. You should include a table that summarizes your source's PTE (see pages 2-32 to 2-33) as well as PTE calculations for each of the emission units at the facility, including permitted, exempt, and grandfathered equipment (example calculations are provided on pages 2-23 to 2-36).
- Proposed Plan.** Include a narrative plan that outlines the actions to be taken and the dates such actions will be taken to limit your source's PTE. In the plan, explain why your source may exceed an emission threshold. Provide some background on your source and how you came to your conclusions. You will also want to explain how and when you plan to restrict your emissions to below the threshold. An example of a proposed plan is provided on page 4-9.
- Restricted PTE Calculations.** Recalculate your PTE using the limits that you are proposing. Your new calculations should show the intended effect of the proposed plan on the source's PTE. In this section you should be able to show that the emissions will be below the threshold. Include a table that summarizes the new PTE for each emission unit (see pages 4-10 and 4-11 for a sample tables).
- Propose Enforceable Limits.** In your application you need to propose the actual limit/restriction language that you would like in your issued Opt-out permit. With the exception of a HAPs Opt-out, the limits you propose should contain an emission limit, a production limit, and/or operational restrictions. HAPs Opt-outs are only required to contain emission limits and associated emissions calculation requirements. For non-HAPs Opt-outs, the limit/restriction must be legally and practically enforceable, so you will also need to propose any monitoring or recordkeeping that will be necessary to demonstrate compliance with the limit or restriction. More information about how to propose limits and restrictions is provided on the following pages. Keep in mind that your inspector or AQD permit engineer may discuss with you the need to alter your proposal to comply with applicable regulations.



“Once in, always in” - If you are applying for a HAPs Opt-out, it is very important that your actual HAP emissions have never exceeded the HAPs major source thresholds. You should look at your historical emissions data. If your actual HAP emissions have exceeded the thresholds, you may be subject to EPA’s “once in, always in” policy and you may be unable to use an Opt-out permit to get out of Title V. If you have questions about this, call the Office of Environmental Assistance at 800.662.9578.

Proposing Enforceable Limits and Restrictions

Emission Limits

An emission limit restricts the amount of an air contaminant that may be emitted over some time period (e.g., lbs/hr, lbs/day, tons/yr). The time period should be as short as possible and should take into consideration whether the type and quantity of monitoring and recordkeeping that is necessary to demonstrate compliance with the emission limit is reasonable and appropriate.

R336.1205 (Rule 205) states: *The time period shall be set in accordance with the applicable requirements and, unless a different time period is provided by the applicable requirement, should generally not be more than 1 month, unless a longer time period is approved by the department. A longer time period may be used if it is a rolling time period, but shall not be more than an annual time period rolled on a monthly basis.*

If you are proposing an emission limit, you will also need to include any monitoring, recordkeeping, and reporting requirements that are necessary to assure that the emission limits are enforceable in a practical matter. Table 4-2 provides examples of emission limits and corresponding monitoring/recordkeeping that may be proposed. It is a good idea to submit an example of the recordkeeping format you plan to use.



If the proposed emission limit does not reflect the maximum emissions of the process or process equipment operating at full design capacity without air pollution control equipment, you must also propose either a production limit or operational restriction. For coating sources and their associated VOC emissions, daily recordkeeping can be used in place of operational or production limits.

Table 4-2: Examples of Emission Limits

Emission Limit	Monitoring/Recordkeeping
The PM emission rate from EUSANDDRYER shall not exceed 6 tons per year based upon a 12-month rolling time period as determined at the end of each calendar month.	The permittee shall keep, in a satisfactory manner, daily calculations of the amount of material processed in EUSANDDRYER.
The NOx and CO emission rate for EUENGINES shall not exceed 15.0 tons per year based on 12-month rolling time period as determined at the end of each calendar month.	The permittee shall keep, in a satisfactory manner, NOx and CO emission calculations EUENGINES, in tons per 12-month rolling time period as determined at the end of each calendar month.

The individual HAP emission rate for FGFACILITY shall not exceed 9.0 tons per year. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.	The permittee shall calculate the total and individual HAP emission rate from the FGFACILITY in tons per 12-month rolling time period as determined at the end of each calendar month .
The total HAP emission rate for the FGFACILITY shall not exceed 22.5 tons per year. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.	



If the emission limit you are proposing is less than 90 percent of the applicable major source threshold (e.g. 90.0 tons VOC/yr), the DRAFT permit will not have to go through a public comment period. If the emission limit you propose is 90 percent or more of the major source threshold, the DRAFT permit will be subject to R 336.1205(1)(b), which requires a public comment period.

Production Limits

A production limit restricts the amount of final product that may be produced over the same time period used in the emission limit (e.g., parts/hr, widgets/day). The production limit you propose should correlate with the calculated emission limit and with the intended operation of the process or process equipment. To demonstrate compliance with a production limit, monitoring and/or recordkeeping must also be proposed. Examples of production limits are provided in Table 4-3.

Table 4-3: Examples of Production Limits

Production Limit	Monitoring/Recordkeeping
The permittee shall not process more than 100,000 tons of Hot Mix Asphalt paving materials in EUHMAPLANT per 12-month rolling time period as determined at the end of each calendar month.	The permittee shall keep in a satisfactory manner, monthly, and 12-month rolling time period records of the amount of hot mix asphalt paving material produced from EU HMAPLANT.
The permittee shall not produce more than 1,000 widgets per day on EUWIDGETLINE.	The permittee shall keep in a satisfactory manner, records of the amount of widgets produced from EUWIDGETLINE on a calendar day basis.

Operational Limits

An operational limit restricts the way a process or process equipment is operated. The limit should correlate with the calculated emission limit and with the intended operation of the process or process equipment. Examples of operational limits are provided in Table 4-4.

Table 4-4: Examples of Operational Limits

Operational Limit	Monitoring/Recordkeeping
A person shall not operate the concrete batch plant unless the mixer fabric filter collector is installed and operating properly.	Implement and maintain a routine check to ensure proper operation of the control equipment.
A person shall not operate a painting process unless a thermal oxidizer is installed and operating properly.	The permittee shall monitor and record, in a satisfactory manner, the temperature in the thermal oxidizer on a continuous basis in a manner and with instrumentation acceptable to the AQD. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.
EUPROCESS#1 shall not operate more than 40 hours per calendar week.	The permittee shall keep, in a satisfactory manner, a written log of the weekly hours of operation for EUPROCESS#1.
EUGRAINDRYER shall not operate for more than an average of 200 hours per month, based on a 12-month rolling time period.	The permittee shall keep, in a satisfactory manner, a monthly written log of the hours of operation of EUGRAINDRYER, averaged over the previous 12-month rolling time period.
The VOC emissions from EUPAINTLINE shall not exceed 3.5 pounds of VOC per gallon of coating as applied, minus water.	The permittee shall keep a record of the VOC content as applied, minus water, in pounds per gallon of each coating used in EUPAINTLINE.
The fuel input to EUBOILER shall not exceed X gallons per month, based on a 12-month rolling time period.	The permittee shall keep a record of the fuel input to EUBOILER on a monthly basis, for the preceding 12-month rolling time period.
The EUBOILER shall not be fired with any fuel other than sweet natural gas.	The permittee shall keep, in a satisfactory manner, a record of the fuels burned in EUBOILER.

Submittal Procedure

The submittal must include at least one original signature, and the signature should be in blue or black ink. Submit three (3) copies of the application along with two (2) copies of any plans, specifications, or drawings to the AQD Permit Section:

AIR QUALITY DIVISION - PERMIT SECTION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
P. O. BOX 30260
LANSING, MI 48909 -7760

FOR PRIORITY/EXPRESS MAIL:

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION - PERMIT SECTION
CONSTITUTION HALL, 2ND FLOOR SOUTH
525 W ALLEGAN STREET
LANSING, MI 48933-1502

Applications for installation of new processes or for modifications other than limiting the source's PTE may be submitted together. It is your responsibility to notify both the AQD Permit Section and district staff of any situation where applications for new or modified processes and applications limiting PTE have been submitted separately and are being reviewed simultaneously.

Opt-Out Permit Cover Letter Example

Small Business, Inc.

Permit Section Supervisor
Air Quality Division - Permit Section
Michigan Department of Environmental Quality
P. O. Box 30260
Lansing, MI 48909 -7760

Re: Opt-out Permit

To Whom It May Concern:

Please find the enclosed "Opt-out" Permit to Install application for Small Business, Inc. The intent of this permit is to reduce our potential to emit to below applicable major source thresholds and avoid applicability of the Renewable Operating Permit (ROP) Program. Small Business Inc. primarily coats metal components for the automotive industry. While some of our processes are permitted, several are either exempt or grandfathered from the requirement to obtain a Permit to Install. As described in the attached documents, Small Business Inc.'s potential to emit VOCs and HAPs exceeds major source thresholds. The limits we are applying for would restrict our potential to emit to below the major source thresholds and put us more in line with our actual production rates and emission levels.

If you need additional information or if you have any questions related to this application, please contact me at (517) 555-1234. Thank you for your consideration.

Sincerely,

John Small Jr

John Small, Jr.
Environmental Manager
Small Business, Inc.

Permit to Install Application Example



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - AIR QUALITY DIVISION

PERMIT TO INSTALL APPLICATION

For authority to install, construct, reconstruct, relocate, or modify process, fuel-burning or refuse burning equipment and/or control equipment. Permits to install are required by administrative rules pursuant to Section 5505 of 1994 PA 451, as amended.

FOR DEQ USE ONLY APPLICATION NUMBER
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Please type or print clearly. The "Application Instructions" and "Information Required for an Administratively Complete Permit to Install Application" are available on the Air Quality Division (AQD) Permit Web Page at <http://www.deq.state.mi.us/aps>. Please call the AQD at 517-284-6804 if you have not been contacted within 15 days of your application submittal.

1. FACILITY CODES: State Registration Number (SRN) and North American Industry Classification System (NAICS)			
SRN	Z 9 9 9 9	NAICS	3 3 2 8 1 2
2. APPLICANT NAME: (Business License Name of Corporation, Partnership, Individual Owner, Government Agency) Small Business Inc.			
3. APPLICANT ADDRESS: (Number and Street) 123 Nuts and Bolts Drive		MAIL CODE:	
CITY: (City, Village or Township) Cool City	STATE: MI	ZIP CODE: 48888	COUNTY:
4. EQUIPMENT OR PROCESS LOCATION: (Number and Street – if different than Item 3)			
CITY: (City, Village or Township)		ZIP CODE:	COUNTY: Kent
5. GENERAL NATURE OF BUSINESS: Metal parts coating for the automotive industry			
6. EQUIPMENT OR PROCESS DESCRIPTION: (A Description MUST Be Provided Here. Include Emission Unit IDs. Attach additional sheets if necessary; number and date each page of the submittal.) The purpose of this application is to limit out facility's potential to emit VOCs and HAPs to below Title V major source thresholds. See attached for complete list of equipment.			
7. REASON FOR APPLICATION: (Check all that apply.)			
<input type="checkbox"/> INSTALLATION / CONSTRUCTION OF NEW EQUIPMENT OR PROCESS			
<input type="checkbox"/> RECONSTRUCTION / MODIFICATION / RELOCATION OF EXISTING EQUIPMENT OR PROCESS – DATE INSTALLED:			
<input checked="" type="checkbox"/> OTHER – DESCRIBE: OPT-OUT PERMIT APPLICATION			
8. IF THE EQUIPMENT OR PROCESS THAT WILL BE COVERED BY THIS PERMIT TO INSTALL (PTI) IS CURRENTLY COVERED BY ANY ACTIVE PERMITS, LIST THE PTI NUMBER(S): 999-89, 825-82			
9. DOES THIS FACILITY HAVE AN EXISTING RENEWABLE OPERATING PERMIT (ROP)? <input checked="" type="checkbox"/> NOT APPLICABLE <input type="checkbox"/> PENDING APPLICATION <input type="checkbox"/> YES PENDING APPLICATION OR ROP NUMBER:			
10. AUTHORIZED EMPLOYEE: John Small, Jr		TITLE: Vice President	PHONE NUMBER: (Include Area Code) (517)-555-1234
SIGNATURE: <i>John Small, Jr</i>		DATE: 9/1/2015	E-MAIL ADDRESS:
11. CONTACT: (If different than Authorized Employee. The person to contact with questions regarding this application)			PHONE NUMBER: (Include Area Code)
CONTACT AFFILIATION:		E-MAIL ADDRESS:	
12. IS THE CONTACT PERSON AUTHORIZED TO NEGOTIATE THE TERMS AND CONDITIONS OF THE PERMIT TO INSTALL? <input type="checkbox"/> YES <input type="checkbox"/> NO			
FOR DEQ USE ONLY - DO NOT WRITE BELOW			
DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:			
DATE PERMIT TO INSTALL APPROVED:		SIGNATURE:	
DATE APPLICATION / PTI VOIDED:		SIGNATURE:	
DATE APPLICATION DENIED:		SIGNATURE:	
A PERMIT CERTIFICATE WILL BE ISSUED UPON APPROVAL OF A PERMIT TO INSTALL			

EQP 5615E (Rev. 09/2015)

Proposed Plan Example

Small Business, Inc.

Proposed Plan

Small Business Inc. coats metal parts for the automotive industry. After calculating the PTE for all processes, we found that we exceeded the major source thresholds for VOCs and HAPs (see attached PTE calculations). This is primarily due to the fact that our special project booth does not have any legal enforceable restrictions to limit its VOC and HAP emissions. PTE calculations indicate that the emissions of VOCs and HAPs from the maintenance paint booth are well above the major source thresholds.

Our actual emission rates are well below those estimated in the PTE calculations. Therefore, we are requesting an "Opt-out" Permit to Install that would include a SOURCE-WIDE emission limit of 90 tons per year for VOCs, 9.0 tons per year for a single HAP, and 22.5 tons per year for total HAPs. To demonstrate compliance with these emission limits, VOC emissions from the entire facility will be calculated monthly for the preceding 12-month rolling time period. In addition, total and individual HAP emissions from the entire facility will be calculated monthly, for the preceding 12-month rolling time period. All emission calculation records will be kept on file for at least five years. I have attached an example of the recordkeeping spreadsheets that will be used to calculate the monthly emission of VOCs and HAPs.

The limits that we are proposing are practically enforceable and would limit our emission of VOCs and HAPs to below the major source thresholds (see attached restricted PTE spreadsheet).

Proposed Enforceable Limits

We are requesting an Opt-out Permit to Install containing the following conditions:

1. The daily VOC emissions for all coating operations are limited to 120 lbs/day. Daily coating usage and VOC emission records will be kept as determined at the end of each month.
2. The individual HAP emission rate for FGFACILITY shall not exceed 9.0 tons per year. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.
3. The total HAP emission rate for FGFACILITY shall not exceed 22.5 tons per year. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.
4. The VOC emission rate for FGFACILITY shall not exceed 90 tons per year. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.
5. The permittee shall calculate the total and individual HAP emission rate from FGFACILITY monthly, for the preceding 12-month rolling time period.
6. The permittee shall calculate the total VOC emission rate from FGFACILITY monthly, for the preceding 12-month rolling time period.
7. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

PTE for CRITERIA POLLUTANTS and proposed PTI Limits Spreadsheet Example

Small Business, Inc.

PTE for CRITERIA POLLUTANTS and proposed Permit Limits

Emission Unit	CO (TON/YR)	NOx (TON/YR)	SOx (TON/YR)	PM (TON/YR)	PM10/PM2.5 (TON/YR)	VOC (TON/YR)	LEAD (TON/YR)	GHG CO₂e (TON/YR)
COATING BOOTHS 1-3				7.0		5.6		
OVEN	0.92	1.10	0.004	0.02	0.09	0.04	negligible	1,282
MAINTENANCE				2.02		134.9		
PRINTING						0.14		
287(C) BOOTH				3.31		8.2		
COLD CLEANERS						0.475		
CLEANUP						6.0		
GRINDER				57.16	5.72			
WELDING				0.03				
BOILER	3.59	4.29	0.03	0.08	0.31	0.22	negligible	5,129
GENERATOR	3.25	15.1	1.0	1.06	1.06			5,160
TOTAL	7.76	20.49	1.03	70.68	7.18	158.5	0	11,571

PTE for HAPs and proposed PTI Limits Spreadsheet Example

Small Business, Inc.

PTE for HAPs and proposed PTI Limits

Emission Unit	HAZARDOUS AIR POLLUTANT (TON/YR)								
	Xylene	Toluene	MEK	Chromium	Chromium (VI)	manganese	MIBK	Individual HAPs	Aggregate HAPs
COATING BOOTHS 1-3	5.6								
OVEN									
MAINTENANCE BOOTH	85.85	41.61	7.36						
PRINTING									
SPECIAL PROJECT BOOTH	5.68	2.27					0.25		
COLD CLEANERS									
CLEANUP		6.0							
GRINDER									
WELDING				0.001	0.001	0.001			
BOILER									
GENERATOR									
TOTAL PTE	97.1	49.9	7.4	0.0	0.0	0.0	0.3	-	154.7
PROPOSED EMISSION LIMITS FOR PTI								9.0	22.5