

# **REGISTRATION PERMIT**

## **APPLICATION GUIDE**

*Guide for Assisting Facilities in Applying for  
Type A Registration Permits*

*Wisconsin Department of Natural Resources  
Air Management Program  
PO Box 7921  
Madison WI 53707*





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# Registration Permit Application Guide

<b>PART I - INTRODUCTION-</b> .....	<b>4</b>
1. WHAT ARE REGISTRATION PERMITS? .....	4
2. PROS AND CONS OF A REGISTRATION PERMIT .....	4
3. HOW DO YOU GET A REGISTRATION PERMIT?.....	5
4. A FEW WORDS ABOUT THE ON-LINE APPLICATION.....	6
5. CONSEQUENCES OF BEING COVERED UNDER THE REGISTRATION PERMIT .....	6
6. WHAT IS "SAFE HARBOR"? .....	7
7. ARE THERE FEES ASSOCIATED WITH A REGISTRATION PERMIT? .....	9
8. WHAT ARE MY OPTIONS IF MY FACILITY IS NOT ELIGIBLE FOR THE REGISTRATION PERMIT? .....	9
9. REGISTRATION PERMIT APPLICATION FLOW DIAGRAM .....	<b>ERROR! BOOKMARK NOT DEFINED.</b>
<b>PART II - REGISTRATION PERMIT APPLICATION INSTRUCTIONS .....</b>	<b>11</b>
1. EXISTING ORDERS, CONSTRUCTION, AND OPERATION PERMITS AND NOTIFICATION THAT THEY CAN BE REVOKED .....	11
2. AFFECTED SOURCES AND MUNICIPAL OR INFECTIOUS WASTE COMBUSTORS .....	14
5. NEW SOURCE PERFORMANCE STANDARDS (NSPS).....	21
6. CONTROL EFFICIENCIES .....	25
7. EMISSION CAP.....	29
8. PARTICULATE MATTER EMISSIONS .....	35
9. ALLOWED STACK CONFIGURATIONS AND AIR QUALITY MODELING .....	37
APPENDIX A – EMISSION UNITS NOT SUBJECT TO CERTAIN REGISTRATION OPERATION PERMIT REQUIREMENTS .....	42
APPENDIX B - CATEGORIES OF SOURCES REQUIRED TO INCLUDE FUGITIVE PARTICULATE MATTER EMISSIONS IN THEIR EMISSION CALCULATIONS .....	43
APPENDIX C – MACT SOURCE CATEGORIES .....	44
APPENDIX D – FEDERALLY REGULATED HAZARDOUS AIR POLLUTANTS LISTED IN S. 112(B) CLEAN AIR ACT .....	46
ATTACHMENT 1 – REVOCATION FORM .....	50
ATTACHMENT 2 - APPLICATION WORKSHEET AND MODELING ASSESSMENT .....	54

## **PART I - Introduction-**

This document contains basic information about Registration Operation Permits (ROPs) to help you decide if a Registration Permit is the right type of permit for your facility. The goal of this document is to familiarize you with the steps in the Registration Permit application process, with the differences between a Registration Permit and traditional permits, and with what is expected once your facility is covered under a ROP.

If you think the Registration Permit is right for you, then the next step is to complete the worksheet included at the end of this document. Use of this worksheet will greatly speed your data entry into the online application. Part II of this Guide contains step by step instructions and information to help you complete the worksheet.

Finally, after you've filled out the worksheet and any other supporting documents that you need go to <http://dnr.wi.gov/org/aw/air/apii/regpermits.html> and click on the link to the online application. Follow the instructions to answer the 9 yes/no questions and fill in the facility information. Finally, print out a hard copy, sign and mail it with any other necessary documents to the Department of Natural Resources Air Management Program as directed in the application. The Department will let you know within 15 days of receipt of the signed copy of your application whether or not you qualify for the Registration Permit. If you qualify, you'll receive an official letter stating that your operations are covered by the Registration Permit and a copy of the Registration Permit.

### **1. What are Registration Permits?**

The Registration Operation Permit, also known as the ROP could be the last air pollution control permit your facility will ever need. It is a standardized air pollution control operation permit which authorizes facilities with low actual emissions to operate. A ROP places a "cap" on the amount of air pollution your facility is allowed to emit, and includes the methods that must be used to demonstrate that it meets the cap. As long as the facility continues to emit below this cap, it is exempt from all air pollution control construction permitting.

Issued along with this ROP is a companion Registration Construction Permit, RCP. The Type A RCP (not to be confused with the Type B RCP which allows for small construction projects to occur at larger facilities) is nearly identical to the ROP. The RCP ensures a smooth and legal transition from DNR's traditional permit program to the Registration Permit Program. All facilities that apply for coverage under the ROP will also be applying for coverage under the companion RCP. To keep this Guide as simple as possible, the rest of this document refers to the just the Registration Permits. All the same eligibility requirements, compliance requirements, and procedures for obtaining coverage apply to both permits.

### **2. Pros and Cons of a Registration Permit**

A Registration Permit has a number of advantages over a "traditional" operation permit. These advantages include:

- Time-savings:
  - Simplified permit application process
  - Quick Department permit decision – 15 days
  - Permit never has to be revised or renewed
- Money-savings:
  - No construction permit fees; exempts facilities from construction permitting.
  - No revision or renewal or construction permit applications to fill out
- Flexibility:

- More flexibility in choosing methods for demonstrating compliance
- Annual records are allowed for annual emission caps
- Changes can be made immediately without obtaining a construction permit
- Safe Harbor - Protects facilities that make reasonable efforts to identify and comply with applicable state air pollution regulations from enforcement (See section 5 for additional details)

A drawback of a Registration Permit is that it does not list all state and federal air pollution regulations that apply to a facility. The Department has developed and will continue to refine and develop tools to assist you in identifying and complying with applicable air pollution regulations, but it may still require significant effort and staff time to identify your applicable requirements and figure out how you will demonstrate compliance with them.

### 3. How Do You Get a Registration Permit?

Compared to traditional permitting, the process of obtaining a Registration Permit is simple. Only four steps are needed to obtain a Registration Permit:

- A. Education** – First use the Registration Permit Application Worksheet (Attachment 2) to review the Registration Permit application questions and determine if your facility is likely to qualify for a Registration Permit. Part II of this Application Guidance document contains additional help on answering those questions. The Registration Permits section of the Department's website, <http://dnr.wi.gov/org/aw/air/apii/regpermits.html> also provides a Registration Permit Compliance Guidance to explain how to take advantage of the benefits and fulfill the obligations of an issued Registration Permit.
- B. Revocation** – Once you have determined that the Registration Permit is right for your facility, the next step is to ask the DNR to revoke any old air permits that you have been issued. The Registration Permit is the only permit your facility can have. If you have old permits, you cannot apply for the Registration Permit until the DNR informs you that your old permits are revocable. Use the Revocation Form (Attachment 1) to request that the DNR revoke these old permits. After a quick review for revocability and a 21 day notification period, DNR will let you know whether your permits are revocable and that you may now apply for the Registration Permit. Your old permits will not actually be revoked until you are officially covered by the Registration Permit.
- C. Registration Permit Application Worksheet** – While you await notification that your permits are revocable, you should complete the Registration Permit Application Worksheet (Attachment 2). Most of the questions on the application are straight forward but two questions may require some additional work before you are ready to apply for the Registration Permit:
  - i. Particulate Matter Emissions and Air Quality Modeling** – If your facility emits particulate matter, you may have to submit information to the department so that air quality modeling can be performed to ensure that your emissions will meet the 24-hour particulate matter standard. Go to Chapter 8 in Part II of this Registration Permit Application Guide for information on how to calculate your maximum controlled particulate matter emissions. If they are over 5 tons per year, you will need to fill out and submit the Modeling Assessment Appendix to the Application Worksheet included as Attachment 2 at the end of this Guide.
  - ii. Stack Requirements and Air Quality Modeling**– The Registration Permit requires that stacks at your facility be vertical, without obstructions such as rainhats, and taller than nearby buildings. If stacks at your facility do not meet Registration Permit stack requirements you can still qualify for the Registration Permit but you will need to have air quality modeling results to show that emissions from your stacks meet all the air quality standards. Use the Modeling Assessment Appendix to the Application Worksheet

available as Attachment 2 at the end of this Guide to provide air quality modeling results demonstrating that your facility emissions meet ambient air quality standards. (see Chapter 9 for more details)

- D.** Once you have completed the Registration Permit Application Worksheet you are ready to apply for coverage under the Registration Permit. Go to <http://dnr.wi.gov/org/aw/air/apii/regpermits.html> and click on the link to the application. Answer the 9 yes/no questions as you did in your worksheet. Complete the facility information, print, sign, and mail the final application and if necessary, your Modeling Assessment and any other attachments to:

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
BUREAU OF AIR MANAGEMENT  
AM/7 – ROP  
P.O. BOX 7921  
MADISON, WI 53707-7921

Within 15 days of receiving your signed application, the DNR will notify you of its decision on whether or not coverage under the Registration Permit will be granted to your facility. Following these procedures will automatically ensure your coverage under the RCP as well. See Section 1 for a short explanation on the Type A RCP.

#### **4. A few words about the on-line application.**

The on-line application will time out after 20 minutes of non-use. There is no way to save your responses, or leave the application to investigate an answer and come back later to finish. This is one of the reasons why use of the Application Worksheet has been stressed. Because the worksheet is almost identical to the on-line application, filling out the worksheet first will help you avoid the frustration of having to start the application process from scratch.

Viewing the Review Page of the on-line application works best at resolutions above 800 x 600. The text size controls in your browser can be used to increase or decrease text size in all resolutions so that you can view the entire page.

When printing the on-line application for signature, the document will print on 2 to 4 pages depending on your responses. The page breaks aren't perfect but don't worry about them.

If you do not have access to the internet call Kristin Hart (608)273-5605 to find an alternative to submit the on-line application. Some options are access to the internet through a DNR Service Center or Public Library. If no internet service can be found an application can be generated by phone and mailed or faxed to you for your review and signature and then mailed back to the DNR.

#### **5. Consequences of Being Covered Under the Registration Permit**

Facilities should be aware of the consequences of being covered under the Registration Permit:

- Permits and/or orders that were previously issued to the facility must be revoked before you can apply for coverage under the Registration Permit. Specific conditions in these permits will also be revoked and you will be required to instead follow the requirements in the Registration Permit or as listed in the Wisconsin Administrative Code. An example is LACT. If your facility emits organic compounds and is subject to s. NR 424.03, Wis. Adm. Code, you may have a LACT determination and requirements in a old permit that are specifically tailored to your facility. When your old permit is revoked, you will be required to either control emissions by 85% or follow the LACT contained in the Registration Permit.
- After coverage under the Registration Permit, the facility must continue to meet all applicable air pollution emission limitations and requirements in chapters NR 400 – NR 499, Wis. Adm. Code and all applicable federal requirements, even though they are not listed in the Registration Permit.

- Facilities are required to monitor and record operational and emissions related data as specified in the Registration Permit and as required to demonstrate compliance with all applicable state and federal air pollution regulations.
- Facilities are required to submit an annual compliance certification and monitoring report that:
  - Certifies compliance with the terms and conditions of the Registration Permit as well as all other applicable state and federal air pollution regulations; and
  - Provides a summary of monitoring conducted at the facility;
- Facilities covered under a Registration Permit are required to report emissions to the Wisconsin air emissions inventory regardless of whether or not the facility's emissions exceed the reporting thresholds in ch. NR 438, Wis. Adm. Code.
- If facilities utilize pollution control devices such as baghouses, scrubbers, and cyclones, they must meet the control efficiencies listed in the Registration Permit and they must use those efficiencies to calculate their actual emissions for demonstrating compliance with the Registration Permit cap. If an emission unit is subject to an applicable limitation that specifically requires a higher control efficiency, then you may use that control efficiency to calculate actual emissions, but only for the emission unit covered by the requirement.
- Once covered under the Registration Permit you can make changes to the facility without having to obtain a construction permit as long as you continue to meet the terms and conditions and the eligibility requirements for the Registration Permit. If you will not meet a term or condition of the Registration Permit or will become ineligible, you must apply for and receive a traditional permit from the Department *before* you become ineligible for the Registration Permit.
- Also, if the facility's maximum controlled emissions of particulate matter are over 5 tons per year and modeled emission exceed certain impact levels, or if the facility's stacks do not meet the Registration Permit stack requirements, then before making changes that would increase emissions or changes to stacks that would decrease the dispersion of air pollution, the facility must show through air quality modeling that emissions will continue to meet air quality standards.

## 6. What is "Safe Harbor"?

The following Safe Harbor provisions only limit the ability of the Wisconsin Department of Natural Resources to take enforcement actions. Under the currently-approved State Implementation Plan (SIP) the USEPA retains the ability to pursue enforcement in cases where the Department could not do so.

Safe harbor is a "grace period" of 90 days for facilities to achieve compliance with an applicable regulation in chs. NR 400-499 that they did not know they were subject to and subsequently violated, or are currently violating. Safe Harbor is available as long as the facility previously made a good faith effort to identify the regulations in chs. NR 400 – 499, that apply to its operations. Safe harbor means that there is no penalty for non-compliance discovered at a facility (i.e., the Department will not take enforcement action), as long as:

- The facility performed and documented a reasonable search and evaluation to identify applicable air pollution regulations and to determine if the facility was meeting those requirements;
- The facility retains documentation demonstrating that the search and evaluation that was conducted was reasonable. This documentation must be kept on site and be available for inspection by Department personnel upon request;
- If the facility subsequently discovers a regulation that applies to it, the facility notifies the Department of the overlooked regulation within 21 days of identifying it; and

- The facility achieves and certifies compliance with the applicable regulation within 90 days after notifying the Department.<sup>1</sup> You can ask the Department to extend the grace period if more time is needed to achieve compliance.

Safe harbor recognizes that air pollution regulations are complex and numerous. With safe harbor, a facility has an incentive to rigorously investigate and follow up on its compliance status and work with the Department to find the best way to meet the obligations and standards in the law.

*How do you qualify for safe harbor?*

- Operate in compliance with the Registration Permit that the facility is covered under;
- Conduct a *reasonable search and evaluation* initially, and again when emission units are added or modified, when new regulations are published, or when your industry association develops new data :
  - Identify regulations found in chs. NR 400-499, Wis. Adm. Code, that apply to the facility.
  - Determine whether the facility is meeting those regulations.
- Maintain documentation on-site to demonstrate that the search and evaluation that was conducted prior to identifying the applicable regulation was reasonable;
- After this search and evaluation, continue to operate in compliance with the regulations that were identified;
- If non-compliance with a previously unidentified applicable regulation is discovered at some point after the search and evaluation:
  - Submit a written notification to the department within 21 days after identifying non-compliance with an applicable requirement;
  - Certify that the facility is in compliance with the applicable requirement by the appropriate deadline:
    - By default, no later than 90 days after notifying the department; OR
    - If an extended deadline is requested by the permittee AND granted by the Department, then by the deadline specified by the Department; OR
    - If the Department orders a deadline less than 90 days after notifying the department, then by that deadline.

*How do you know and show that your search and evaluation was "reasonable"?*

Section NR 407.105(7), Wisconsin Administrative Code, indicates that "a reasonable search and evaluation" includes a search and evaluation of chs. NR 400 to 499, and shall include a reasonable effort to review other readily accessible information relevant to the facility's operations, such as databases, workshops and materials available through trade associations, vendors, the Department of Natural Resources, the Department of Commerce small business clean air assistance program (SBCAAP), the U.S. Environmental Protection Agency and other recognized sources of information on air regulations. In addition, the Department has developed a Registration Permit Compliance Guide that is available at the Department's main webpage for registration permits: <http://dnr.wi.gov/org/aw/air/apii/regpermits.html>. This document contains useful information intended to help facilities identify and understand air pollution regulations that apply to their operations.

Keep a written copy of the results of the search and evaluation at the facility for inspection upon request for as long as the facility is covered under the Registration Permit.

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<sup>1</sup> The Department has the authority to order the facility to achieve compliance in a shorter time period if the shorter time period is feasible and necessary to protect public health and the environment.

### **7. Are There Fees Associated With a Registration Permit?**

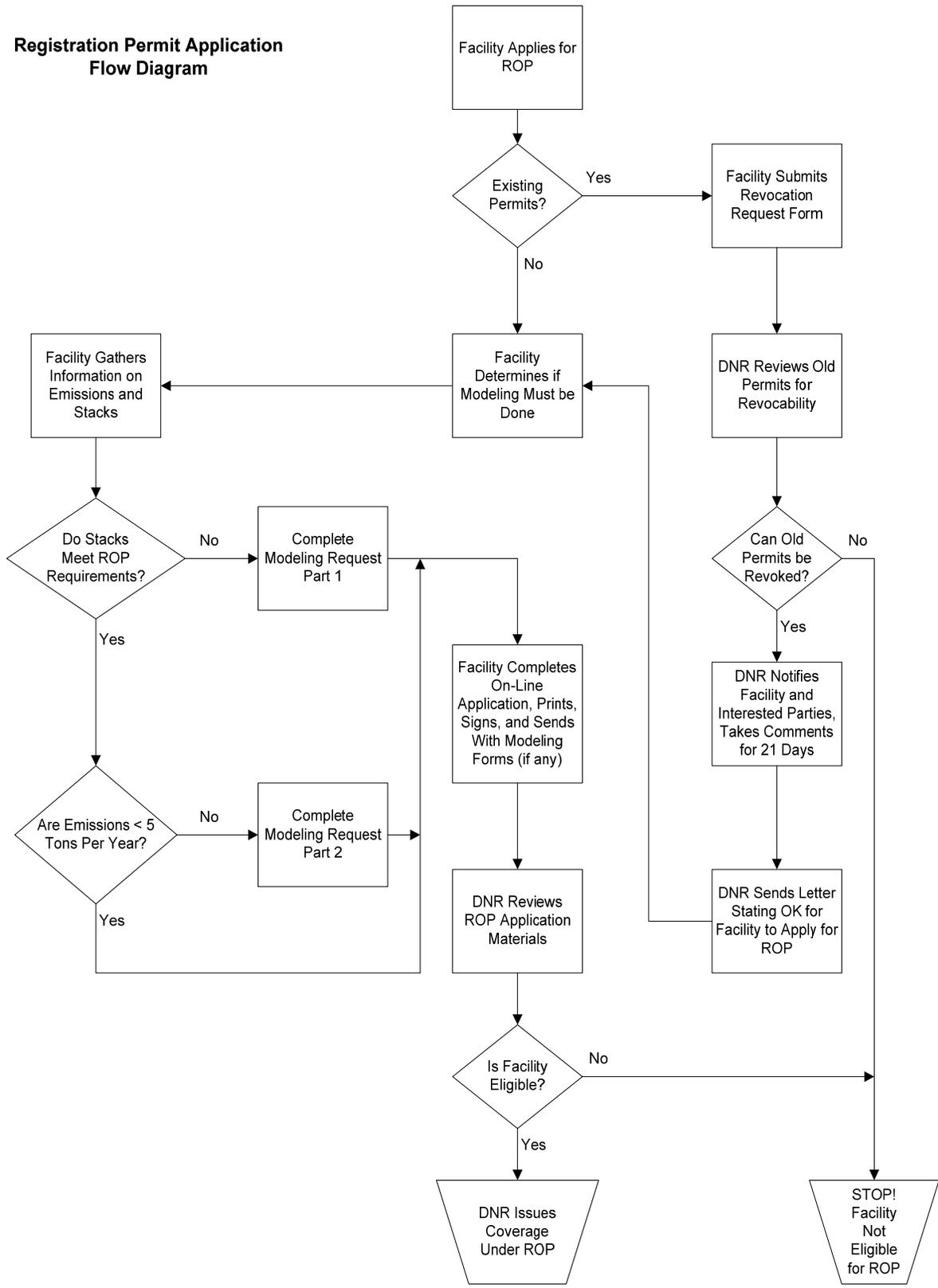
Yes. Facilities that choose to be covered under a Registration Permit are charged an initial fee of \$1100, which is collected from the facility during the next emission inventory cycle. This \$1100 fee replaces the facility's standard emission fees (currently \$35.71 per ton of emissions) which would have been charged for that year. For subsequent years, the facility pays the normal emission fees as required under chapter NR 438, Wis. Adm. Code.

### **8. What are my Options if My Facility is Not Eligible for the Registration Permit?**

The purpose of this Guide is to prepare you for answering accurately the Registration Permit Online Application questions, and to let you know, before using the online application, whether your facility is eligible for the registration operation permit.

The Registration Permit Eligibility determination is a NOT once denied always denied situation. If you find that your facility is not eligible for the Registration Permit at this time you may make operational changes and reapply. For example, if your control equipment does not meet the control requirements in the Registration Permit, you can improve your control devices and reapply. If your emissions are over the emission cap, you can reformulate a raw material, install control equipment, or make other process changes to reduce emissions and reapply.

**Registration Permit Application  
 Flow Diagram**



## PART II - REGISTRATION PERMIT APPLICATION INSTRUCTIONS

### 1. Existing Orders, Construction, and Operation Permits and Notification That They Can be Revoked

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#### **Question 1:**

Is either of the following true?

- (a) Your facility does *not* have existing air permits or orders;
- (b) Your facility has one or more existing air pollution control construction permits, operation permits, or orders, *and* you have received notification from the DNR indicating that these permits or orders can be revoked to allow your facility to be eligible for a registration operation permit.

**ADDITIONAL INFORMATION:** *If your facility has any existing air pollution control permits or orders, you must have written notification from the DNR that they can be revoked before you apply for coverage under the Registration Permits. You can request that the DNR revoke these permits and orders by using the Revocation Request form. This form and the Revocation Fact Sheet are available at <http://www.dnr.wi.gov/org/aw/air/apii/regpermits.html>. More information and forms are available at the end of your Application Guide.*

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#### **What does this question mean?**

The term ‘construction permit’ refers to a permit that was issued to a facility to authorize the installation, replacement, relocation, reconstruction or modification of one or more processes that are air emission "sources". The term ‘operation permit’ refers to a permit that was issued to a facility to authorize the operation of those processes at a facility. The term ‘existing permit’ refers to the status of the construction or operation permit. Regardless of expiration dates and actions that may have affected an order or permit, an order or permit is considered to be an "existing" one if it has not been formally "revoked" by the Department.

The Registration Permit is the only permit your facility can have. If your facility has any existing construction or operation permits, or orders (e.g. consent orders, administrative decisions, etc.) these permits and orders will be revoked when your facility is covered by the Registration Permit. Upon your request, the Department will review your existing permits to determine if they can be revoked. If they can be revoked, the Department will satisfy the permit revocation notification requirements dictated by State statute, and then notify you that your facility's existing permits and orders can be revoked. After you have received this notification, you may re-start this online Registration Permit application and answer "yes" to Question #1.

#### **How do I request that the Department review my permits to determine if they can be revoked?**

The Department has developed a simple form to use to request that the Department review your existing permits and orders to determine if they can be revoked. This form is available from the Registration Permit website:  
<http://dnr.wi.gov/org/aw/air/apii/regpermits.html>

#### **When will my facility's existing permits and orders actually be revoked?**

Your facility's existing permits and orders will be revoked at the same time that the Department grants your facility coverage under the Registration Permit. Your old permits are not revoked before this time in case your facility turns out to be ineligible for a Registration Permit.

The department has prepared a Revocation Fact Sheet with more information on revocation. This fact sheet is also available on the Registration Permit website: <http://dnr.wi.gov/org/aw/air/apii/regpermits.html>

Table 1 lists some of the common air permit types and permit numbers assigned to them:

<b>Table 1</b>
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Permit Type	Example Permit Numbers Assigned
Construction	05-JAJ-154 02-ABC-123-R1 MAN-10-JFH-92-41-083
'ConOp'	05-JAJ-154-OP
Exemption	05-JAJ-244 05-JAJ-244-EXM
Order ("Administrative Order")	<i>Types: Consent orders, Unilateral Orders, Decisions</i> <i>AM-98-006</i>
Operation	678901230-P11 123456780-S01 234567890-F22 998678900-G02 456789010-J01 567890120-N03

**What are these permit types, and what do they cover?**

- **Construction Permit** is a permit issued to a facility for the construction and initial operation of a new or modified emission source(s) at the facility. A construction permit can be written for an entire new facility, the addition of new sources at an existing facility, or the modification of existing sources at an existing facility. The duration, or life, of a construction permit is typically 18 months from the date of issuance.
- **ConOp Permit** is an operation permit issued to a facility for the continued operation of the new or modified sources previously covered under a corresponding construction permit. A ConOp permit may include the entire facility if the previous construction permit in which this ConOp was written for covered the entire facility. The duration, or life, of a ConOp permit is typically 60 months (5 years) from the date of issuance.
- **Exemption** is an exemption from the requirement to obtain a construction permit for the installation of a new source(s) or the modification of existing source(s). Exemptions are not permits and should not be included when determining whether or not you have existing permits.
- **Operation Permit** is a permit issued to a facility for the continued operation of all sources currently in operation at a facility. The duration, or life, of an operation permit is typically 60 months (5 years) from the date of issuance. Note: This type of permit is a facility-wide permit. If you have this type of permit you should have answered yes to question A.
- **Administrative Order** is a legal document issued by the Department that differs from a permit and that places binding requirements on a facility that may also become Federally-enforceable by USEPA. An order may be issued in cases such as the following: to approve compliance plans, require the installation of controls, approve a compliance demonstration methods (e.g. internal offsets, in-line averaging), require testing or data collection (e.g. stack test, CEMs), require actions to achieve or maintain compliance (as a formal enforcement action), or to suspend or revoke an operating permit. There are three types of orders. Unilateral orders are initiated and issued by the Department without facility approval and may be appealed by a facility. Consent orders are a binding, voluntary agreement signed by the facility's responsible official. Decisions are unilateral orders that specify the Department's approval of a compliance demonstration method that may have been proposed by the facility.

**How can I tell if I have a construction or operation permit?**

Permits are assigned a specific permit number following the format displayed in the table above.

Also, you may look at your permit's cover page, and the title on it should state: "AIR POLLUTION CONTROL CONSTRUCTION PERMIT", "AIR POLLUTION CONTROL PERMIT TO CONSTRUCT AND OPERATE", or "AIR POLLUTION CONTROL OPERATION PERMIT." The last title "Air Pollution Control Operation Permit" is used for both ConOps and Operation permits.

Some facilities may have received letters exempting construction projects from the need to get a permit. These letters may contain a number similar to a construction permit number. The subject of the letter, or the first paragraph, will clearly identify the letter as an exemption. An exemption is NOT considered a construction permit. Do not include exemption letters when determining if your facility has a permit.

***How will my status for obtaining a Registration Permit be affected if I do have existing construction or operation permit(s) or orders?***

If your facility has previously been issued any air pollution construction or operation permits or orders, you must request that the DNR review these permits and/or orders and determine if they can be revoked. If they can be revoked, the DNR will notify you and will begin the process of revoking these permits/orders. This revocation process includes a notification to interested parties and an opportunity to receive comments for 21 days. After the notification period is over, you will receive a determination from the DNR on the revocability of your permits and whether or not you are eligible to apply for the Registration Permit.

***How will my status for obtaining a Registration Permit be affected if I do not have any existing construction or operation permit(s) or orders?***

It will not. You may continue the application process for your facility's coverage under the Registration Permit.

***What if I still need more help determining if my facility is currently covered by any construction or operation permit(s)?***

- If you are unsure if your facility has an existing permit, use the Permit Tracking Chart on the Air Program website: [http://dnr.wi.gov/org/aw/air/permits/APM\\_toc.htm](http://dnr.wi.gov/org/aw/air/permits/APM_toc.htm). The chart contains an alphabetical list of all air permit holders and permits issued after about 1990. (If you have any permits that were issued prior to 1990, you may not find them at this website and you should call the Registration Permit Coordinator at the number below).
- You may contact your facility's assigned compliance engineer for additional help in your determination. A compliance staff list is available at <http://dnr.wi.gov/org/aw/air/reg/countyresp.pdf>.
- You may also call the Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us) for additional help in your determination.

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**Question 1. – Answers and Results:**

Is either of the following true?

- (a) Your facility does *not* have existing air permits or orders;
  - (b) Your facility has one or more existing air pollution control construction permits, operation permits, or orders, *and* you have received notification from the DNR indicating that these permits or orders can be revoked to allow your facility to be eligible for a registration operation permit.
- If you answer YES go on to question 2.
  - If you answer NO, then you may not apply for the Registration Permits at this time. You must first apply for revocation of your existing permits. See the additional information immediately below.
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## 2. Affected Sources and Municipal or Infectious Waste Combustors

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### **Question 2:**

Is your facility any of the following?

- (a) An affected source under the acid rain program, ch. NR 409, Wis. Adm. Code;
  - (b) A municipal solid waste combustion source as defined under S. NR 500.03(151), Wis. Adm. Code; or
  - (c) An infectious waste combustion source (Note: "infectious waste" is defined in s. 287.07(7)(c), Wis. Stats.)
- 

### ***What does this question mean?***

Facilities subject to the Acid Rain Program are typically electrical utilities or facilities emitting large amounts of sulfur dioxide. Municipal solid waste combustors and infectious waste combustors refer to facilities with incinerators that burn certain types of waste. If you do not generate electricity, emit large amounts of sulfur dioxide or operate an incinerator then you may answer no to this question. If you are still unsure how to answer this question, more information is included below.

The terms used in this question are defined below.

- An "affected source" is a facility that has process(es) that are subject to the standards under ch. NR 409, Wis. Adm. Code, otherwise known as the Acid Rain program regulations. These regulations apply to certain power generation emission units. The specific units that are subject to these requirements are listed in s. NR 409.01(1), Wis. Adm. Code: <http://www.legis.state.wi.us/rsb/code/nr/nr409.pdf>. Note that US Department of Energy form EIA-860, only applies to electric generating plants with a nameplate rating of 1 megawatt (1000 kW) or more, and therefore units under 1000 kW are not a 'generator' under s. NR409.02(42), Wis. Adm. Code. These units would not be considered an affected source for the purposes of the application.
- A municipal solid waste (MSW) combustion source is a facility that has process(es) as defined under s. NR 440.215(2)(k) or s. 500.03(151), Wis. Adm. Code.
  - The definition under s. NR 440.215(2)(k), Wis. Adm. Code, is: “ ‘Municipal waste combustor’ or ‘MWC’ or ‘MWC unit’ means any device that combusts solid, liquid or gasified MSW including, but not limited to, field erected incinerators with or without heat recovery; modular incinerators; starved air or excess air boilers or steam generating units; furnaces whether suspension fired, grate fired, mass fired or fluidized bed fired; and gasification combustion units. This does not include combustion units, engines or other devices that combust landfill gases collected by landfill gas collection systems.”
  - The definition under s. NR 500.03(151), Wis. Adm. Code, is: “ ‘Municipal solid waste combustor’ means any solid waste treatment facility that is used to burn municipal solid waste or products derived from municipal solid waste, alone or in conjunction with other materials.”
- Furthermore, the definition of “municipal solid waste” is found under ss. NR 440.215(2)(jm), NR 500.03(150), and NR 600.03(153), Wis. Adm. Code.
  - The definition under s. NR 440.215(2)(jm), Wis. Adm. Code, is: “ ‘Municipal type solid waste’ or ‘MSW’ means household, commercial, retail or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels and other similar permanent or temporary housing establishments or facilities. Commercial or retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities and other similar establishments or facilities. Institutional waste includes material discarded by schools, hospitals, nonmanufacturing activities at prisons and government facilities and other similar establishments or facilities. Household, commercial or retail and institutional waste do not include sewage, wood pallets, construction and demolition wastes, industrial process or manufacturing wastes or motor vehicles including motor vehicle parts or vehicle fluff. Municipal type solid waste does include motor vehicle maintenance materials, limited to vehicle batteries, used motor oil and tires. Municipal type solid waste does not

include wastes that are solely segregated medical wastes. Any mixture of segregated medical wastes and other wastes which contains more than 30% waste medical waste discards is considered to be municipal type solid waste.”

- The definition under both ss. NR 500.03(150) and NR 600.03(153), Wis. Adm. Code, is: “ ‘Municipal solid waste’ means: (a) household waste, or (b) Solid waste from commercial or industrial sources that does not contain hazardous waste and does not contain any process waste which is the direct or indirect result of the manufacturing of a product or the performance of a service such as dry cleaners or paint shops. ‘Municipal solid waste’ does not include waste wood, papermill sludge, sewage sludge, tires or industrial process wastes.”
- Hazardous waste is defined under s. NR 605, Wis. Adm. Code, which can be reviewed here: <http://www.legis.state.wi.us/rsb/code/nr/nr605.pdf>.
- An hospital/medical/infectious waste combustion source is a facility that has process(es) that combust hospital, medical, and/or infectious waste, as defined under s. NR 500.03(110), Wis. Adm. Code and s. 287.07(7), Wis. Stats, and also under EPA’s Federal Rule – 40 CFR Part 62 Subpart HHH (see: <http://www.epa.gov/ttn/atw/129/hmiwi/fr15au00.pdf>)
  - The definition of a Hospital/Medical/Infectious waste incinerator is given by 40 CFR Part 62 Subpart HHH § 62.14490, as: “ ‘Hospital/medical/infectious waste incinerator or HMIWI or HMIWI unit’ means any device that combusts any amount of hospital waste and/or medical/infectious waste.”
  - The definition of hospital waste is given by 40 CFR Part 62 Subpart HHH § 62.14490, as: “ ‘Hospital waste’ means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.”
  - The definition of medical/infectious waste is given by 40 CFR Part 62 Subpart HHH § 62.14490 (please use the link to this Subpart to read the full definition), under “*Medical/infectious waste*”.
  - The definition of infectious waste is also given under [s. 287.07(7)(c)1.c., Wis. Stats.], as: “ ‘Infectious waste’ means solid waste that contains pathogens with sufficient virulence and in sufficient quantity that exposure of a susceptible human or animal to the solid waste could cause the human or animal to contract an infectious disease.”
  - The definition of medical waste is also given under [s. 287.07(7)(c)1.cg., Wis. Stats.], as: “ ‘Medical waste’ means containers, packages and materials identified under sub. (3) or (4) (of 287.07, Wis. Stats.) that contain infectious waste or that are from a treatment area and are mixed with infectious waste.”
  - The definition of a medical waste incinerator is also given under [s. 287.07(7)(c)1.cr., Wis. Stats.], as: “ ‘Medical waste incinerator’ means a solid waste treatment facility that primarily burns infectious waste and other waste that contains or may be mixed with infectious waste.”
  - Furthermore, the definition of pathological waste is given under 40 CFR Part 60 §60.51c and Part 62 §62.14490, as: “ ‘Pathological waste’ means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).”

***How will my status for obtaining a Registration Permit be affected if my facility is defined by one of these source types?***

You will not be eligible to apply for a Registration Permit.

***What if I still need more help determining my status as one of these source types?***

- You may contact your facility’s assigned compliance engineer for additional help in your determination. A compliance staff list is available at <http://www.dnr.state.wi.us/org/aw/air/reg/countypress.pdf>, or if you have an air permit, you may contact your regional air program as specified in your air permit (most likely found under the “Total Facility” or “Other Conditions Applicable to the Entire Facility” section(s) of your air permit).
- You may also contact the Registration Permit Coordinator , Kristin Hart at (608) 273-5605, or email at [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us), for additional help in your determination.

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**Question 2. – Answers and Results:**

Is your facility any of the following?

- (a)** An affected source under the acid rain program, ch. NR 409, Wis. Adm. Code;
- (b)** A municipal solid waste combustion source as defined under S. NR 500.03(151), Wis. Adm. Code; or
- (c)** An infectious waste combustion source (Note: "infections waste" is defined in s. 287.07(7)(c), Wis. Stats.)

- If you answer YES, then you are not eligible for the Registration Permits.
  - If you answer NO go on to question 3.
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### 3. Case-by-Case Determinations: NR 445 BACT, LAER, and LACT

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#### **Question 3:**

Are any of the processes at your facility subject to Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) requirements under ch. NR 445, Wis. Adm. Code?

**ADDITIONAL INFORMATION:** *When answering this question you should take into consideration conditions in the Registration Permits that would limit your facility's actual annual emissions to less than 25% of major source thresholds.*

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#### ***What does this question mean?***

BACT and LAER refer to special, facility specific regulations affecting facilities that emit known or suspected carcinogens over thresholds listed in ch. NR 445, Wis. Adm. Code. These requirements are considered case-by-case determinations because they require the department to take into consideration the specific circumstances of each facility and process and set an emission limit or work practice standard that may be unique for that facility. If your facility's operation permit must contain BACT or LAER requirements then you are not eligible to be covered by a Registration Permit. This is because the Registration Permit is a generalized permit and cannot contain special requirements for individual facilities.

You may know that LACT or Latest Available Control Techniques required under s. NR 424.03(2)(c), Wis. Adm. Code, is usually a case-by-case determination however, the department has put a generalized LACT into the Registration Permit so that more facilities can qualify for coverage. If your facility is subject to LACT but not subject to any other case-by-case determinations, then you are still eligible for coverage under the Registration Permit.

#### ***What are BACT, LAER and LACT?***

BACT and LAER for hazardous air pollutants are required under ch. NR 445, Wis. Adm. Code. Effective July 1, 2004, the DNR revised chapter NR 445. The revision adds many new chemicals to the list of hazardous air pollutants, changes the threshold emissions for many chemicals based on the latest health information, provides more stack height ranges with greater emission thresholds, provides a risk-based exclusion option, and discontinues the once-in-always-in policy. Facilities that will emit known or suspected carcinogens above the thresholds specified in Table A of ch. NR 445, Wis. Adm. Code, may be required to have a case-by-case determination of BACT or LAER for their processes to control emissions of these harmful substances. However, you may consider the restrictions on your emissions once you are covered by the Registration Permit when determining if your emission rates will be over the 445 thresholds.

LACT applies to facilities that emit volatile organic compounds and cannot meet the general 85% control requirement. This regulation is found in s. NR 424.03, Wis. Adm. Code. If your processes are not subject to other specific organic compound emission limits found in chs. NR 419, 420, 422, Wis. Adm. Code, you may be required to follow the requirements of a LACT determination. As mentioned above, the Registration Permit contains a generalized LACT that will apply to affected process line at facilities covered under the Registration Permit.

#### ***How can I tell if my facility is subject to a case-by-case BACT or LAER determination?***

If your facility has ever had emissions of known or suspected carcinogens in quantities above the thresholds listed in ch. NR 445, Wis. Adm. Code, you may be subject to BACT or LAER. If you already have air permits for processes at your facility, look in those permits for the words BACT or LAER. If you don't have permits or you cannot discern from the permit whether or not you are subject to BACT or LAER, see <ftp://commerce.wi.gov/MT-CA-StateHAPrule.pdf> for more help in determining whether or not you are subject to a case-by-case determination of BACT or LAER.

#### ***What if I used to be subject to a BACT or LAER requirement but now have emissions below the threshold?***

If actual emissions of a hazardous substance at your facility are below the new thresholds in ch. NR 445, you can get relief from the BACT or LAER requirements with a Registration Permit, because the revisions to ch. NR 445 discontinued the once-in-always-in policy. As long as the emissions of the pollutants at your facility which have BACT or LAER as control requirements in ch. NR 445 are below the appropriate thresholds listed, you may be eligible for a Registration Permit. In calculating your emissions, you must look at the conditions in the Registration Permit (i.e., if the emissions are controlled,

use the control efficiency in the Registration Permit). In addition, you may choose to do risk modeling to demonstrate that the predicted risk for the pollutant in question is below the allowable risk contained in NR 445.

For facilities with existing construction or operation permits, these old permits will be reviewed to ensure that they can be revoked. The department will not revoke your old permits unless it believes that you will not be subject to BACT or LAER upon coverage of your facility under the registration permit.

***How will my status for obtaining a Registration Permit be affected if I already have a permit with a LACT determination?***

If your facility already has a permit with a LACT determination under s. NR 424.03(2)(c), Wis. Adm. Code, your facility may still be eligible for coverage under a Registration Permit. Your existing permits will need to be revoked (see the revocation fact sheet on the Department's Registration Permits webpage: <http://dnr.wi.gov/org/aw/air/apii/regpermits.html>). Your old LACT determination will be revoked along with these old permits. If you choose to move forward with Registration Permit coverage, you will need to meet the requirements of s. NR 424.03 by either controlling organic compound emissions by 85%, or by limiting the emissions from the affected process line to 10 tons organic compounds per year and meeting the generalized LACT contained in the Registration Permit (refer to Section A. of the Type A Registration Permits). Some types of processes may also elect to meet a specific VOC limits in chs. NR 419-423. If you believe that you can comply with the s. NR 424.03, Wis. Adm. Code, requirements in the Registration Permit you may continue to apply for coverage under the Registration Permit. If instead, you prefer to retain your original LACT or you do not believe you can comply with the LACT in the Registration Permit, you should discontinue the Registration Permit application process and keep your traditional permit.

***What if I still need more help determining if my facility is currently covered by any existing construction permit(s)?***

- If you are unsure if your facility is subject to a case-by-case determination, please visit our website at: [http://dnr.wi.gov/org/aw/air/permits/APM\\_toc.htm](http://dnr.wi.gov/org/aw/air/permits/APM_toc.htm) (If you have any permits that were issued prior to 1990, you may not find them at this website and you can call the Registration Permit Coordinator at the number below).
- You may contact your facility's assigned compliance engineer for additional help in your determination. A compliance staff list is available at <http://www.dnr.state.wi.us/org/aw/air/reg/countyresp.pdf>, or if you have old air permits, you may contact your regional air program as specified in your air permit (most likely found under the "Total Facility" or "Other Conditions Applicable to the Entire Facility" section(s) of your air permit).
- You may also contact a Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us), for additional help in your determination.

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**Question 3. – Answers and Results:**

Are any of the processes at your facility subject to Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) requirements under ch. NR 445, Wis. Adm. Code?

- If you answer YES, then you are not eligible for the Registration Permits
  - If you answer NO go on to question 4
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#### 4. MACT

**Question 4:**

Is either of the following true?

- (a) Your facility is *not* subject to any Maximum Achievable Control Technology (MACT) Standard;
- (b) Your facility is subject to *only* the recordkeeping and/or notification requirements of a MACT Standard.

**ADDITIONAL INFORMATION:** Sources subject to only the recordkeeping and notification requirements of a MACT Standard are still eligible to apply. Appendix C or your Application Guide contains a list of MACT standards.

**What does this question mean?**

A MACT is a federal regulation, sometimes incorporated into state rules, to control emissions of 188 federally regulated hazardous air pollutants. It is also called a National Emission Standard for Hazardous Air Pollutants (NESHAP). If you are subject to a MACT or a NESHAP other than just the recordkeeping or notification requirements of the standard, you are not eligible for a Registration Permit. A recordkeeping requirement is a requirement to keep a record such as an amount of a substance used, or the blueprints of a piece of equipment. A notification requirement is a requirement to submit or otherwise notify EPA or DNR of your status with the requirement under the MACT such as the requirement to submit a written statement of the date a piece of equipment was installed.

**How can I determine if I am subject to a MACT?**

For a complete list of MACT affected source categories and specific descriptions of each category, visit the US Environmental Protection Agency (EPA) website <http://www.epa.gov/ttn/atw/mactfnlalph.html> [exit DNR]

If you have an existing permit with a MACT standard in it then you are subject to a MACT. Look at your requirements. If they consist only of recordkeeping and/or notification requirements you are still eligible to apply. If your permit contains an emission limit or control requirement, or work practices you are not eligible for coverage under the Registration Permit.

If you do not have existing permits or if there are no MACT standards in you old permits but you still suspect you may be subject to a standard you can use the following steps in determining if you are subject to a MACT.

- First, consider if you may be subject to an *area source MACT* in one of the following categories. The *area source MACTs* apply to any size facility, even small facilities that could otherwise qualify for the Registration Permit. Sources with the following Standard Industrial Classification (SIC) codes are likely to be in the indicated MACT category.

MACT Area Source Categories	SIC Code
Chromium Electroplating or Anodizing	3471, 3472, 3423, 3593
Commercial Sterilization And Fumigation Using Ethylene Oxide	279, 2034, 2035, 2046, 2099, 2211, 2821, 2831, 2833, 2834, 2879, 3069, 3079, 3569, 3677, 3693, 3841, 3842, 3999, 5086, 5122, 5149, 7218, 7391, 7397, 7399, 8071, 8091, 8231, 8411, 8922, 9641
PERC Dry Cleaning	7215, 7216, 7218
Solvent Cleaning (using 5% or more Carbon Tetrachloride, Chloroform, Perchloroethylene, 1,1,1, Trichlorethane, Trichloroethylene, or Methylene Chloride)	254, 259, 359
Hazardous Waste Incineration	-
Medical Waste Incineration	-
Mercury Cell Chlor-Alkali Plants	-
Municipal Landfills	9511, 4953
Municipal Waste Combustors	-
Portland Cement Manufacturing	3241

Publicly Owned Sewerage Treatment Plants	4952
Secondary Aluminum Production	3341, 3334, 3353, 3354, 3355, 3363, 3365
Secondary Lead Smelting	3332

The entire list of MACT source categories is listed in Appendix C. of this document. For more specific descriptions of the sources subject to each of the MACT source categories, visit EPA’s website <http://www.epa.gov/ttn/atw/mactfnlalph.html> [exit DNR]

- Next, consider if you are subject to a *major source MACT*. Major source MACTs only apply to facilities that, under full operating capacity (24 hours per day, 7 days per week), had the potential to emit more than 10 tons per year of any single federal hazardous air pollutant or 25 tons per year of a combination of federal hazardous air pollutants from all sources at the facility on and after the compliance date of the MACT in question.

The federal hazardous air pollutants and their CAS numbers are listed in Appendix D of this document.

If your facility’s potential emissions are over the 10/25 ton per year threshold and your facility or operations at your facility fall under a major source MACT category and the compliance date for that MACT category has passed, then you are subject to the MACT and, unless you are subject only to recordkeeping and/or notification requirements, then you are ineligible for the Registration Permit.

If, however, the compliance date for the MACT in question has not yet passed, coverage under the Registration Permit will effectively limit HAP emissions at your facility to less than major source levels and will ensure that you are *not* subject to the major source MACT. You would be still eligible for the Registration Permit as long as you can obtain coverage prior to your MACT compliance date.

***What if I still need more help determining if I am subject to a MACT?***

- Wisconsin's Department of Commerce operates the Small Business Clean Air Assistance Program (SBCAAP). This program employs several clean air specialists who can assist small businesses. SBCAAP's web site is located at <http://www.commerce.state.wi.us/BD/BD-CA-sbcaap.html>. The site contains additional information on the program as well as contact information.
- You may also contact the Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us), for additional help.

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**Question 4. – Answers and Results:**

Is either of the following true?

- (a) Your facility is *not* subject to any Maximum Achievable Control Technology (MACT) Standard;
- (b) Your facility is subject to *only* the recordkeeping and/or notification requirements of a MACT Standard.

- If you answer YES go on to question 5.
  - If you answer NO, then you are not eligible for the Registration Permits.
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## 5. New Source Performance Standards (NSPS)

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### **Question 5:**

Is one of the following true?

- (a) Your facility is not subject to any New Source Performance Standard (NSPS) listed in ch. NR 440, Wis. Adm. Code;
- (b) Your facility is subject to *only* an NSPS allowed by the ROP;
- (c) Your facility is subject to *only* the recordkeeping and/or notification requirements of an NSPS.

**ADDITIONAL INFORMATION:** Sources subject to *only* the recordkeeping and notification requirements of an NSPS are still eligible to apply. There are also some NSPS that are allowed by the permit.

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### **What are New Source Performance Standards (NSPS)?**

The NSPS are federal air pollution standards that apply to certain types of industrial processes or equipment if the equipment was constructed modified or reconstructed after a date specified in the rule. For example there are new source performance standards covering electric arc furnaces at steel plants, but the standards only apply if the furnaces were installed modified or reconstructed after August 17, 1983. An NSPS typically sets emission standards for criteria pollutants and, less often, for other types of pollutants.

### **What does it mean to have a new, modified or reconstructed source?**

The following definitions will help you understand these terms:

1. New Sources: a facility, process line or portable source that was constructed after the date specified in the particular standard that applies to the "affected facility".
2. Modification: a physical change, or change in the method of operation that produces either more air emissions of the same type or "new" air emissions.
3. Reconstruction: to remove old -- and substitute new -- components that exceed 50% of the capital cost of building a new source.

Since February 1, 1984, NSPS have applied to the owner or operator of any stationary source [i.e. facility] that contains an "affected facility". An "affected facility" is the term used by EPA to mean any apparatus process line or piece of equipment specifically regulated by an applicable NSPS standard in ch. NR 440, Wis. Adm. Code.

### **Which NSPS are you allowed to have with the Registration Permit?**

Table 2 lists all the NSPS with the allowed NSPS in **bold** type. If you are subject to one of the NSPS in bold type, then you may still apply for coverage under the Registration Permit. Also, if you are subject to only a recordkeeping or a notification requirement of an NSPS, you may still apply for coverage under the Registration Permit.

### **How do I determine which NSPS apply and whether I am still eligible for a Registration Permit?**

- General procedure for search and evaluation to determine which NSPS apply:
  - Identify any equipment (processes) at the facility which are new, modified, or reconstructed (see the definitions above).
  - Examine the names of NSPS Titles listed in Table 2 and note any that might possibly apply to those processes, at first glance.
  - Read the applicability paragraphs and definitions of terms for those NSPS standards that were noted. Pay particular attention to the date that each section identifies as the time after which changes to the equipment or process must meet the rule. If the changes occurred prior to that date, then the equipment is NOT considered new, modified or

reconstructed under the NSPS. You can get to the Wisconsin Administrative Code by going to this website:  
<http://www.legis.state.wi.us/rsb/code/nr/nr440.pdf>.

- Decide which standards apply to the facility's processes. You may call the Department for help on this determination if necessary. A compliance staff list is available at <http://www.dnr.state.wi.us/org/aw/air/reg/countyresp.pdf>, or if you have an air permit, you may contact your regional air program as specified in your permit (most likely found under the “Total Facility” or “Other Conditions Applicable to the Entire Facility” section(s) of your air permit). Or, contact the Registration Permit Coordinator, Kristin Hart at (608)273-5605 or [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us).
- Examine the Federal NSPS standards that have not been incorporated into the Wis. Adm. Code: <http://www.epa.gov/docs/epacfr40/chapt-I.info/60tc.htm> (the Federal list of promulgated NSPS standards) including:
  - Municipal solid waste landfills (Subparts CC and WW).

<b>Titles of NSPS Standards As Incorporated into the Wisconsin Administrative Code</b>	<b>Section</b>
Fossil–fuel–fired steam generators for which construction is commenced after August 17, 1971.	NR 440.19
Electric steam generating units for which construction is commenced after September 18, 1978.	NR 440.20
Industrial – commercial – institutional steam generating units.	NR 440.205
<b>Small industrial–commercial–institutional steam generating units.</b>	NR 440.207
Incinerators.	NR 440.21
Municipal waste combustors.	NR 440.215
Portland cement plants.	NR 440.22
Nitric acid plants.	NR 440.23
Sulfuric acid plants.	NR 440.24
<b>Asphalt concrete plants. (Hot Mix Asphalt Facilities)</b>	NR 440.25
Petroleum refineries.	NR 440.26
<b>Storage vessels for petroleum liquids for which construction, reconstruction or modification commenced after June 11, 1973, and prior to May 19, 1978.</b>	NR 440.27
<b>Storage vessels for petroleum liquids for which construction, reconstruction or modification commenced after May 18, 1978, and prior to July 23, 1984.</b>	NR 440.28
<b>Volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction or modification commenced after July 23, 1984.</b>	NR 440.285
Secondary lead smelters.	NR 440.29
Secondary brass and bronze production plants.	NR 440.30
Primary emissions from basic oxygen process furnaces for which construction is commenced after June 11, 1973.	NR 440.31
Basic oxygen process steelmaking facilities for which construction is commenced after January 20, 1983.	NR 440.315
Sewage treatment plants.	NR 440.32
Primary copper smelters.	NR 440.33
Primary zinc smelters.	NR 440.34
Primary lead smelters.	NR 440.35
Primary aluminum reduction plants.	NR 440.36
Phosphate fertilizer industry: wet–process phosphoric acid plants.	NR 440.37
Phosphate fertilizer industry: superphosphoric acid plants.	NR 440.38
Phosphate fertilizer industry: diammonium phosphate plants.	NR 440.39
Phosphate fertilizer industry: triple superphosphate plants.	NR 440.40
Phosphate fertilizer industry: granular triple superphosphate storage facilities.	NR 440.41
Coal preparation plants.	NR 440.42
Ferroalloy production facilities.	NR 440.43
Steel plants: electric arc furnaces constructed after October 21, 1974, and on or before August 17, 1983.	NR 440.44
Steel plants: electric arc furnaces and argon–oxygen decarburization vessels constructed after August 17, 1983.	NR 440.445
Kraft pulp mills.	NR 440.45
Glass manufacturing plants.	NR 440.46

<b>Titles of NSPS Standards As Incorporated into the Wisconsin Administrative Code</b>	<b>Section</b>
<b>Grain elevators.</b>	NR 440.47
<b>Surface coating of metal furniture.</b>	NR 440.48
Stationary gas turbines.	NR 440.50
Lime manufacturing plants.	NR 440.51
Lead–acid battery manufacturing plants.	NR 440.52
Metallic mineral processing plants.	NR 440.525
Automobile and light–duty truck surface coating operations.	NR 440.53
Phosphate rock plants.	NR 440.54
Ammonium sulfate manufacture.	NR 440.55
Graphic arts industry: publication rotogravure printing.	NR 440.56
Pressure sensitive tape and label surface coating operations.	NR 440.565
<b>Industrial surface coating: large appliances.</b>	NR 440.57
Metal coil surface coating.	NR 440.58
Asphalt processing and asphalt roofing manufacture.	NR 440.59
Equipment leaks of VOC in the synthetic organic chemicals manufacturing industry.	NR 440.62
Beverage can surface coating industry.	NR 440.63
Bulk gasoline terminals.	NR 440.64
New residential wood heaters.	NR 440.642
Rubber tire manufacturing industry.	NR 440.644
Volatile organic compound (VOC) emissions from the polymer manufacturing industry.	NR 440.647
Flexible vinyl and urethane coating and printing.	NR 440.65
Equivalent leaks of VOC in petroleum refineries.	NR 440.66
Synthetic fiber production facilities.	NR 440.67
Volatile organic compound (VOC) emissions from the synthetic organic chemical manufacturing industry (SOCMI) air oxidation unit processes.	NR 440.675
<b>Petroleum dry cleaners.</b>	NR 440.68
Equipment leaks of VOC from onshore natural gas processing plants.	NR 440.682
Onshore natural gas processing: SO <sub>2</sub> emissions.	NR 440.684
Volatile organic compound (VOC) emissions from synthetic organic chemical manufacturing industry (SOCMI) distillation operations.	NR 440.686
Nonmetallic mineral processing plants.	NR 440.688
Wool fiberglass insulation manufacturing plants.	NR 440.69
VOC emissions from petroleum refinery wastewater systems.	NR 440.70
Volatile organic compound emissions from synthetic organic	NR 440.705
Magnetic tape coating facilities.	NR 440.71
<b>Industrial surface coating: surface coating of plastic parts for business machines.</b>	NR 440.72
Calciners and dryers in mineral industries.	NR 440.73
Polymeric coating of supporting substrates facilities.	NR 440.74

\*NSPS categories in **bold** type are allowed by the Registration Permit

***How do I answer the question about whether my facility is subject to an NSPS?***

- After determining which NSPS apply to your facility, if any, then you must determine whether the standard falls into at least one of the following categories:
  - the facility or process is only subject to the recordkeeping or notification requirements of that standard and not to any limitation or other compliance demonstration requirement
  - the facility or process is subject to an allowed standard marked in **BOLD** in the list above
- If each NSPS standard is either identified as an exception (in **bold** above) or consists only of recordkeeping and notification requirements, then the facility meets the NSPS eligibility criteria for the Registration Permit and may answer "YES" to this question on the application.

- You may also contact the Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at Kristin.Hart@dnr.state.wi.us, for additional help in making your determination.

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**Question 5. – Answers and Results:**

Is one of the following true?

- (a) Your facility is not subject to any New Source Performance Standard (NSPS) listed in ch. NR 440, Wis. Adm. Code;
  - (b) Your facility is subject to *only* an NSPS allowed by the ROP;
  - (c) Your facility is subject to *only* the recordkeeping and/or notification requirements of an NSPS.
- If you answer YES go on to question 6.
  - If you answer NO, then you are not eligible for the Registration Permits.
-

## 6. Control Efficiencies

### **Question 6:**

Is either of the following true?

- (a) Your facility does *not* have air pollution control devices;
- (b) All air pollution control devices at your facility meet the minimum control efficiencies listed in Section G of the Type A Registration Operation Permit.

### ***What does this question mean?***

The Registration Permit contains the control devices and the minimum control efficiency levels that control devices at a facility must meet or exceed. These control devices and their required minimum control efficiencies are listed in Table 3 below.

In order to qualify and remain eligible for the Registration Permit, you must first identify all control devices at your facility. Next, identify which devices are required by an applicable emission limitation (a regulation) or are needed to keep facility emissions below the emissions caps in (Section 7).

Finally, you must determine the actual control efficiency for each control device and compare this efficiency to the appropriate minimum control efficiency level that is listed below.

<b>Table 3</b>						
<b>Control Device</b>	<b>Control Efficiency (Total Enclosure)<sup>2</sup></b>			<b>Control Efficiency (Hood)</b>		
	<b>PM</b>	<b>PM<sub>10</sub> and PHAP</b>	<b>VOC and VHAP</b>	<b>PM</b>	<b>PM<sub>10</sub> and PHAP</b>	<b>VOC and VHAP</b>
Low efficiency cyclone	40%	20%	-	32%	16%	-
Medium efficiency cyclone	60%	40%	-	48%	32%	-
High efficiency cyclone	80%	60%	-	64%	48%	-
Multiple cyclone w/out flyash reinjection	80%	60%	-	64%	48%	-
Multiple cyclone with fly ash reinjection	50%	38%	-	40%	30%	-
Wet cyclone separator	50%	38%	-	40%	30%	-
Wall filters (including paint overspray filters and rotary drum filters)	95%	95%	-	76%	76%	-
Fabric filters and HEPA filters (e.g., baghouse, cartridge collectors)	98%	92%	-	78%	73%	-
Spray towers	80%	80%	70%	64%	64%	56%
Venturi scrubber	90%	85%	-	72%	68%	-
Condensation scrubber (packed bed)	90%	90%	-	72%	72%	-
Impingement plate scrubber	75%	75%	-	60%	60%	-
Electrostatic precipitators	95%	95%	-	76%	76%	-
Thermal oxidizers	-	-	95%	-	-	76%
Catalytic oxidizers	-	-	95%	-	-	76%

<sup>2</sup> VHAP = Volatile hazardous air pollutant, PHAP = Particulate hazardous air pollutant.

Table 3						
Control Device	Control Efficiency (Total Enclosure) <sup>2</sup>			Control Efficiency (Hood)		
	PM	PM <sub>10</sub> and PHAP	VOC and VHAP	PM	PM <sub>10</sub> and PHAP	VOC and VHAP
Condenser	-	-	70%	-	-	56%
Flaring or direct combustor	-	-	98%	-	-	78%
Biofilter	-	-	80%	-	-	64%

**What does control efficiency mean?**

Control efficiency is a measure of air pollution reduction. It is a percentage value representing the amount of air pollution emission reduction caused by a control device.

**How is control efficiency calculated?**

A control device's efficiency is defined using the following equation:

$$CE = \frac{[(E_{in}) - (E_{out})]}{(E_{in})} \times 100\%$$

where:

CE = Control device efficiency

E<sub>in</sub> = Pollutant emission rate entering the control device

E<sub>out</sub> = Pollutant emission rate exiting the control device

For example, if a pollution control device's efficiency is stated as 90%, that means that for every 10 pounds of an air pollutant entering the device, only 1 pound of the pollutant is emitted to the atmosphere.

**How do I determine control efficiency?**

You can determine the control efficiency by several means. The preferred, and most accurate, method is through actual performance testing of the control device at your facility, where the amount of pollution entering the control device is measured and the amount of pollution being emitted is measured. If performance testing at your facility has never been done, an alternative method of estimating the control efficiency is manufacturer's testing results or guarantees. This information should have been supplied in the documentation that came with your control device, or you may have to contact the manufacturer of your control device. You will need to have documentation of some sort to meet the compliance demonstration requirements of the Registration Permits.

**If I use multiple control devices for the same process, how do I determine overall control efficiency?**

If more than one control device applies to the same pollutant from a process, there are different ways, depending on the configuration of the control devices, to determine the overall control efficiency.

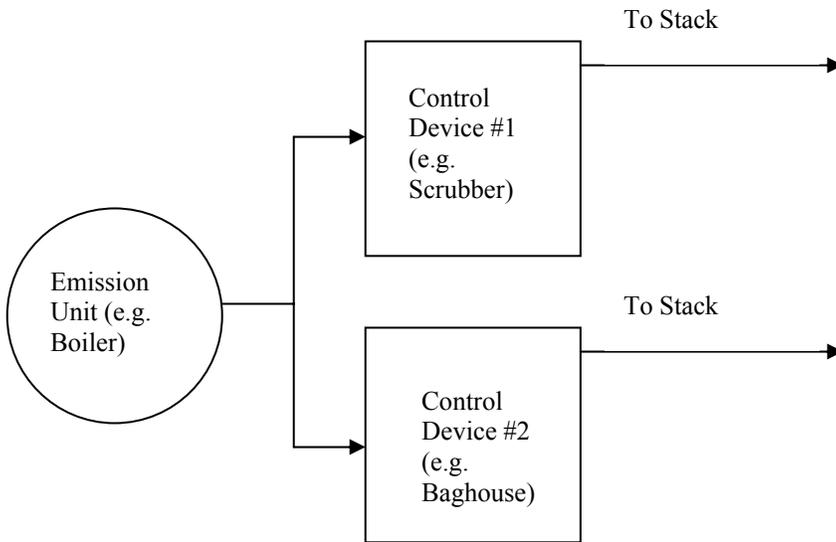
- If the control devices are in parallel (as shown in figure 1, below), you would simply compare the individual control efficiencies of each device with the required control efficiency in the Registration Permit.
- If the control devices are in series (as shown in figure 2, below), use the following equation to determine the overall efficiency, and compare this efficiency with the required control efficiency in the Registration Permit:

$$\text{Overall Control Efficiency} = \left[ \left( 1 - \left( \left( (100 - CE1) / 100 \right) \times \left( (100 - CE2) / 100 \right) \times \left( (100 - CE3) / 100 \right) \dots \right) \right) \right] \times 100\%$$

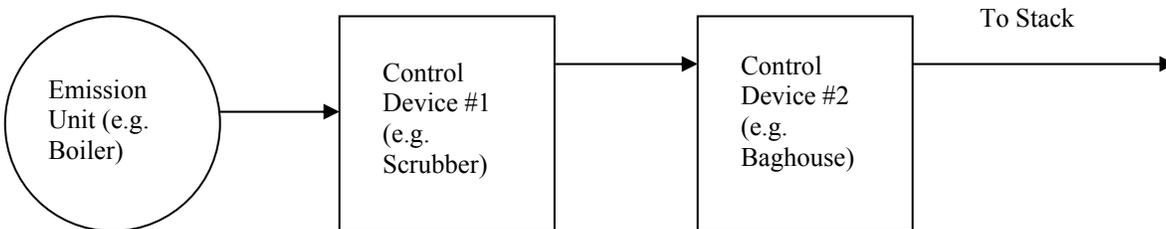
where:

- CE1 = Control efficiency of first control device
- CE2 = Control efficiency of second control device (if applicable)
- CE3 = Control efficiency of third control device (if applicable)
- ... = Add more control devices into the equation if applicable

**Figure 6.1 Control Devices in Parallel**



**Figure 6.2 Control Devices in Series**



**What if I still need help in determining how to answer this question?**

- You may contact the Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us), for additional help.

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**Question 6. – Answers and Results:**

Is either of the following true?

- (a) Your facility does *not* have air pollution control devices;
- (b) All air pollution control devices at your facility meet the minimum control efficiencies listed in Section G of the Type A Registration Operation Permit.

- If you answer YES go on to question 7.
  - If you answer NO, then you are not eligible for the Registration Permits at this time. You may install new control equipment or modify existing control equipment to meet the control device requirements and reapply in the future.
-

## 7. Emission Cap

### **Question 7:**

The Type A Registration Permit contains a cap on the annual, calendar year emissions from your facility. The cap for the Type A Registration Permits is 25% of the major source thresholds for sec. 112(b) federal hazardous air pollutants, sulfur dioxide, carbon monoxide, VOC, particulate matter, and nitrogen oxides, and a cap on lead emissions of 0.5 tons per year.

Are you willing and able to accept and comply with the Type A Registration Permits' caps on your facility's emissions?

**ADDITIONAL INFORMATION:** *This limit equates to annual calendar year emissions of 25 tons of PM<sub>10</sub>, 25 tons of volatile organic compounds, 25 tons of sulfur dioxide, 25 tons of nitrogen oxides, 25 tons of carbon monoxide, 0.5 tons of lead, 2.5 tons of any single sec. 112(b) federal hazardous air pollutant, and 6.25 tons of the total of all sec. 112(b) federal hazardous air pollutants emitted by the facility. Note: Because the limit is 25% of major source threshold, the amount of air pollution you may emit in any calendar year will change if the major source threshold for a pollutant changes. Such changes do not happen without warning, however, and the DNR would inform and provide compliance assistance to all affected facilities in the event that major source thresholds change in the future.*

### **What does this question mean?**

A Registration Permit effectively caps a facility's actual air pollution emissions. Once you are covered under the Registration Permit, you must limit the annual (calendar year) emissions from your facility to below the caps so that your facility can remain eligible for coverage under the Registration Permit. Table 4 shows the pollutants covered by the Registration Permit emission caps and the highest emissions allowed under each pollutant's cap, according to current (June 2006) major source threshold levels in Wisconsin.

<b>Pollutant</b>	<b>Emission Limits<sup>3</sup></b>
Particulate Matter or PM <sub>10</sub>	25 ton/year for attainment areas
Volatile Organic Compounds	25 ton/year for attainment, and marginal or moderate ozone nonattainment areas
Nitrogen Oxides	25 ton/year
Sulfur Dioxide	25 ton/year
Carbon Monoxide	25 ton/year
Lead	0.5 tons/year
Section 112(b) Hazardous Air Pollutants (Federal HAP) <sup>4</sup>	2.5 ton/year for any <i>single</i> Federal hazardous air pollutant 6.25 ton/year for a <i>combination</i> of all Federal hazardous air pollutants

<sup>3</sup> Depending on whether an area of the state meets the air quality standards set by the Environmental Protection Agency, it will be designated as attainment (meets the standards) or non-attainment (does not meet the standards) for a specific pollutant. Most areas in Wisconsin are considered attainment areas. A map showing the location of the current nonattainment areas in Wisconsin is available at <http://dnr.wi.gov/org/aw/air/modeling/nonattainment.htm>.

<sup>4</sup> A list of these air pollutants is available at <http://www.epa.gov/ttn/atw/188polls.html>.

***What are these pollutants, and where might they be generated at my facility?***

- **Particulate matter, or PM**, is the term for particles found in the air, including dust, dirt, soot, smoke, and liquid droplets. Some common sources of particulate matter include operations such as crushing rocks, grinding, sanding or handling of materials, spray painting, and combustion sources. **PM<sub>10</sub>** is the portion of particulate matter emitted which has a diameter less than or equal to 10 micrometers. PM<sub>10</sub> is known to cause more health problems than larger sized particulate matter.
- **Volatile organic compounds, or VOC**, are organic compounds, which in the presence of nitrogen oxides and sunlight, form ground level ozone. Volatile organic compounds are emitted from many processes, often from those that use paints, inks, lacquers, adhesives, other coatings, and cleanup or other types of solvents.
- **Nitrogen oxides, or NO<sub>x</sub>**, is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the nitrogen oxides are colorless and odorless. Nitrogen oxides form when fuel is burned at high temperatures, as in a combustion process (e.g., boilers, space heaters, diesel generators).
- **Sulfur Dioxide, or SO<sub>2</sub>**, belongs to the family of sulfur oxide gases (SO<sub>x</sub>). Sulfur is prevalent in most raw materials, including crude oil, coal, and ore that contains common metals like aluminum, copper, zinc, lead, and iron. SO<sub>x</sub> gases are formed when fuel containing sulfur, such as coal, diesel and fuel oil, is burned, and when gasoline is extracted from oil, or metals are extracted from ore.
- **Carbon Monoxide, or CO**, is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. In combustion processes, the carbon in the fuel is never completely combusted, and a portion becomes CO. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing).
- **Lead** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Due to the phase out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are utilities and lead-acid battery manufacturers.
- **Section 112(b) Hazardous Air Pollutants, or Federal HAP's**, are a group of 188 pollutants that the Environmental Protection Agency (EPA) have designated as being known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Examples of these pollutants include benzene, which is found in gasoline; perchloroethylene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries.

***When do I need to calculate my emissions?***

The Department recommends that before you apply for a Registration Permit, you calculate your emissions for the previous calendar year and also estimate what you think your emissions for the coming calendar year will be. You should compare these emissions with the Registration Permit emission caps in the table above. Based on your calculations, if you don't believe that you will be able to stay under the Registration Permit emission caps, then this type of permit is not the right permit for you.

***When do I need to begin meeting the emission caps in the Registration Permit?***

You must meet the emission caps beginning in the year that your coverage under the Registration Permit begins. For example, if you are granted coverage under the Registration Permit in December 2006, your emissions for December and the preceding 11 months in 2006 must be below the emission caps, even though you were only covered by the Registration Permit for one month of the year. Therefore, if you don't believe that you can meet the emission caps this year, wait to apply for the Registration Permit until next year (e.g. January 2007 or later), when you believe your emissions will be below the caps.

***Can I consider control devices when I calculate my annual actual emissions?***

Yes, as long as the control device is listed in the Registration Permit (see Table 3 under Control Efficiency section of this guide). Or, if an emission unit at your facility is covered by an applicable requirement that specifically requires a type of control device not listed, you may also use that control device to calculate emissions but only for the emission unit covered by the applicable requirement.

***What are the control efficiencies that I must use to calculate my facility's emissions?***

Any control devices that your facility must use to meet the emission cap of the Registration Permit must meet the minimum control efficiency listed in Table 3 of the previous section. The exception is if an applicable requirement specifically requires a higher control efficiency. Then you may use that control efficiency in your emission calculations but only for the emission unit subject to the higher control efficiency.

***What happens to my emission caps if the attainment area status of the county where I operate changes?***

If the attainment status for any pollutant for the area in which your facility is located changes, the emission cap for that pollutant may change. For example, the major source threshold for a moderate nonattainment area for ozone is 100 tons per year of volatile organic compounds (VOC). The threshold for a severe non-attainment area for ozone is 25 tons per year of VOC. So, if the area in which your facility is located is re-designated from moderate ozone nonattainment to severe ozone nonattainment, the VOC emission cap for your facility would drop from 25 tons per year to 6.25 tons per year. Note that the department would likely have plenty of time to inform affected sources of impending changes in attainment status for the location of any affected facilities and would help step facilities through such a change.

***How do I calculate actual annual emissions from my facility?***

If you submit an annual Air Emissions Inventory Report also called Consolidated Reporting, to the department, you may use this report to help estimate whether or not your emissions have been and will be below the Registration Permit emission caps. One caution is that the control device efficiencies used in your Inventory Report might be higher than is allowed under the Registration Permit. For example, there is a large difference between the 92% control allowed for PM10 from baghouses in the Registration Permit and the 99.9% control efficiency given to many baghouses in the air emissions inventory calculations. If you have control devices you may want to recalculate the emissions in your inventory substituting the Registration Permit control efficiencies for the actual control efficiencies used in your inventory.

If you have never submitted an Air Emissions Inventory Report to the DNR before, or if you have control devices and want to more accurately estimate emissions for Registration Permit purposes, follow the steps below.

- Calculate actual emissions for each pollutant contained in Question 7. from each emission unit<sup>5</sup> at your facility except those listed in Appendix A.
- Similar emission units may be grouped together for emission calculation purposes, if they are uncontrolled or use the same type of control device.
- If emissions are controlled by a control device, you must use the control efficiency from the table that corresponds to that type of control device used to control emissions of that pollutant. Actual annual emissions of all uncontrolled pollutants can be used. Or, if you do not know your actual emissions, you may use the emission limit of an applicable requirement as an estimate of your emissions.
- Use may use actual hours operated during a calendar year, actual production rates for a year or other calendar year data for these calculations. Make sure that you do not anticipate exceeding these calendar year numbers in the future however. For example, if you currently operate one shift per day but would like to increase to two shifts, you might double your actual production numbers to ensure that you will qualify for this permit in years to come.
- Choose one of the calculation methods in a. to d., below, for each emission unit (or group of emission units) at your facility. If you have developed emissions factors or other emissions data specifically for your facility operations using your own stack testing information or material analysis, use these emission factors or other data rather than emission factors or other data published by USEPA, MSDS's, or trade associations.
- Fugitive dust emissions<sup>6</sup> must be included in your emission calculations only if your facility is in a category listed in ss. NR 407.02(4)(b)1., to 27., Wis. Adm. Code. These categories are shown in Appendix B of this document. Most facilities that are eligible for this Registration Permit will not fall into one of these categories, but check that this is true for your facility.

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<sup>5</sup> An emissions unit is "any part [process equipment, etc.] of a facility which emits or is capable of emitting any air pollutant."

<sup>6</sup> "Fugitive dust emissions" means, for the purposes of calculating emissions for the ROP emission cap, particulate matter emissions that do not exit from a flue or stack. Outdoor storage piles or dust from roadways on your property are common sources of fugitive dust.

- If an emission unit exhausts particulate matter inside a building, the particulate matter, PM<sub>10</sub> and other pollutants emitted as particles from that unit do not need to be included in your emission calculations. It can be assumed that these emissions settle out inside the building.
- Once you have calculated the emissions from each emissions unit and each group of similar emissions units at your facility, you must add up the emissions of each pollutant from all emissions units at your facility and make sure that your estimated future annual emissions of each pollutant will not exceed its cap.
- Once you are covered under the Registration Permit, you will be required to report your actual annual emissions to the Wisconsin Air Emissions Inventory (AEI) and submit an annual certification of compliance with these emission caps.

***What are the calculation methods?***

- a. Emission calculation based on the source's actual operating parameters, as shown in the following equation:

$$E = OP \times U_{EF} \times [1 - CE], \text{ where}$$

E = Actual emissions in tons per year

OP = Operating Parameter as required by the emission factor (e.g., actual hours of operation or number of units produced or gallons of fuel used).

$U_{EF}$  = Emission Factor<sup>7</sup> (e.g., pounds of pollutant per hour of operation or number of units produced, or gallons of fuel used)

CE = Control Device Efficiency (percent expressed as a decimal fraction) as listed in the Registration Permit. No other control device efficiency may be used for CE unless a higher control efficiency is specifically required by an applicable requirement that the emission unit is subject to. If no control device is installed for an emission unit or if the control device is not designed to control a given pollutant, then CE = 0.

- b. Another way to calculate your actual annual emissions is to use the applicable emission limitation for your emission unit and multiply by the hours you expect to operate in any given year. This method may over estimate your emissions, but you won't need to develop emission factors or use control efficiencies that are much lower than your actual control efficiency.

For example, using the published uncontrolled emission factor for asphalt concrete plants and the allowed control efficiency for baghouses would result in emissions of PM<sub>10</sub> from asphalt concrete plants of over 100 lb/hr. Most asphalt plants will choose to use emission factors developed from actual emission testing at their facilities. However, another method might be to use the applicable emission limitation. For Asphalt Concrete Plants last modified after June 11, 1973, the applicable emission limitation is 0.039 gr/dscf. This emission limitation can be converted into a pound per hour number using the facility specific information on air flow and moisture content. For a typical plant, this emission rate might be around 7.6 lb/hr. If the plant always operates less than 3000 hours per year, a good estimate of the emissions from the plant would be:

$$7.6 \text{ lb/hr} \times 3000 \text{ hr/yr} \times 1 \text{ ton}/2000 \text{ lb} = 11.4 \text{ tons per year}$$

- c. A material balance may be used to calculate actual VOC emissions:

$$E = [(ax - y - cz) \times (1 - d)]/2000 \text{ lb/ton, where}$$

E = the emissions of VOC in tons per year

a = the amount of material entering the process in a calendar year. This is typically gallons of paint or pounds of adhesive.

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<sup>7</sup> An "emission factor" is a representative value that relates the amount of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. These factors are usually expressed as the weight of pollutant divided by a unit weight, volume, distance, or duration of the activity emitting the pollutant (e.g., pounds of particulate emitted per ton of coal burned). The best emission factors to use are ones developed at your facility using approved test methods and your own material throughput. If emission testing has not been done at your facility, you can find emission factors for many types of emission sources using the USEPA document AP-42 available at the following site: <http://www.epa.gov/ttn/chief/ap42/index.html>. Trade associations and equipment manufacturers also publish emission factors suitable for estimating emissions

x = the amount of VOC contained in the material. This is sometimes given as a percent by weight or may be given in lb/gallon. Be sure you have documentation of the VOC content in each material using a signed statement from the supplier, results from an approved test method, or the material safety data sheet (MSDS).

y = the amount of VOC incorporated permanently into the product. This includes VOC's chemically transformed in production. It does not include latent VOC remaining in the product that will at some time be released to the atmosphere.

c = The amount of material, if any, leaving the process as waste in a calendar year. This might be unused paint left in the bottom of the paint pot, or spent cleaning solvent to be shipped off as hazardous waste.

z = the amount of VOC contained in the material, if any, leaving the process as waste, or otherwise not incorporated into the product and not emitted to the air.

d = the control device efficiency (percent expressed as a decimal fraction of 1.0), as listed in the Registration Permit (see discussion above for Question #7). If there is no control device, d=0.

- d. You may determine sulfur dioxide emissions by measuring the sulfur content of the fuel used and assuming that all of the sulfur in the fuel is oxidized to sulfur dioxide. The sulfur content of each batch of fuel received must be measured by an independent laboratory using ASTM methods or verified by vendor certification. The sulfur dioxide actual emissions must be determined for each batch of fuel received by using the following equation:

$$SO_2 = \%S/100 \times F/2,000 \times 2$$

where,

$SO_2$  = Tons of sulfur dioxide emissions from a given batch of fuel.

%S = Weight percent sulfur in the fuel being burned.

F = Amount of fuel in a given batch, in pounds.

2,000 = Pounds per ton.

2 =  $2/1 = 64/32$  = Pounds of sulfur dioxide per pound of sulfur in one pound-mole.

The total sulfur dioxide emissions for the year equals the sum of the sulfur dioxide emissions from all individual fuel batches burned during the calendar year.

NOTE: The Registration Permit Compliance Guide will provide additional calculation methods with alternate compliance options for the Registration Permit caps on each pollutant's emissions. See <http://dnr.wi.gov/org/aw/air/apii/regpermits.html>

#### ***What if I still need more help calculating my emissions?***

- Wisconsin's Department of Commerce operates the Small Business Clean Air Assistance Program (SBCAAP). This program employs several clean air specialists who can assist small businesses in calculating their emissions. SBCAAP's web site is located at <http://www.commerce.state.wi.us/BD/BD-CA-sbcaap.html>. The site contains additional information on the program as well as contact information.
- The Department, in cooperation with the Department of Commerce's Small Business Clean Air Assistance Program, developed an Air Pollution Emission Calculation Spreadsheet to help facilities calculate their emissions. This spreadsheet is available at: <ftp://commerce.wi.gov/MT-CA-EmissionsWorksheet.xls>.
- If you are unsure what emission factor to use for an emission unit at your facility, USEPA maintains a document titled **AP-42, Compilation of Air Pollution Emission Factors** which contains representative emission factors for a variety of industrial categories and processes. This document is available on-line at <http://www.epa.gov/ttn/chief/ap42/index.html>
- You may also contact the Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us), for additional help in figuring out how to calculate emissions.

#### ***Example Calculation***

Shown below is an example emission calculation for a combustion process. Note that no control device is present, so CE = d = 0:

– **Combustion source**

Emissions Unit: 90 million BTU per hour boiler (90 MMBTU/hr)

Fuel: Natural gas

Heat content: 1,000 MMBTU/million cubic feet of nat. gas (1,000 MMBTU/cf6)

Back up Fuel: #2 Fuel oil

Heat content: 140 MMBTU/1,000 gallons of #2 fuel oil (140 MMBTU/Mgal)

Particulate matter (PM) is calculated as follows:

Natural gas:

The emission factor is from AP-42, Chapter 1, Section 1.4, for boilers. Total particulate matter is the sum of the filterable and condensible particulate matter.

$$\text{PM: } (5.7 + 1.9)\text{lb/cf6} \times 90 \text{ MMBTU/hr} \times \text{cf6}/1,000 \text{ MMBTU} = 0.684 \text{ lb/hr}$$

$$\text{PM: } 0.684 \text{ lb/hr} \times 8,760 \text{ hr/yr} \times \text{ton}/2,000 \text{ lb} = 3.00 \text{ ton per year (3.00 TPY)}$$

#2 Fuel oil:

The emission factor is from AP-42, Chapter 1, Section 1.3, for Industrial boilers of <100 MMBTU/hr, distillate oil fired. No emission factor is included for condensible particulate matter; the listed emission factor will be assumed to be a reasonable estimate for total particulate matter emissions.

$$\text{PM: } 2 \text{ lb}/1,000 \text{ gal} \times 90 \text{ MMBTU/hr} \times 1,000 \text{ gal}/140 \text{ MMBTU} = 1.29 \text{ lb/hr}$$

$$\text{PM: } 1.29 \text{ lb/hr} \times 8,760 \text{ hr/yr} \times \text{ton}/2,000 \text{ lb} = 5.63 \text{ TPY}$$

Of course, during a given calendar year a facility might use both fuels in the same unit at different times, so the total actual PM emissions for the year would be determined by taking into account the amount of each fuel actually burned in the unit during the year.

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**Question 7. – Answers and Results:**

The Type A Registration Permit contains a cap on the annual, calendar year emissions from your facility. The cap for the Type A Registration Permits is 25% of the major source thresholds for sec. 112(b) federal hazardous air pollutants, sulfur dioxide, carbon monoxide, VOC, particulate matter, and nitrogen oxides, and a cap on lead emissions of 0.5 tons per year.

Are you willing and able to accept and comply with the Type A Registration Permits' caps on your facility's emissions?

- If you answer YES go on to question 8.
  - If you answer NO, then you are not eligible for the Registration Permits at this time. You may install control devices, change raw materials, and/or modify equipment to reduce emissions to below these thresholds and reapply in the future.
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## 8. Particulate Matter Emissions

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### **Question 8:**

Does your facility have maximum controlled emissions of particulate matter which are less than 5 tons per year? (Don't include particulate matter from stacks used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide. Do calculate emissions by using your maximum controlled hourly emission rate multiplied by 8760 hours per year. If an emission unit's physical design makes it impossible to operate 8760 hours per year, reasonable operating scenarios with fewer operating hours per year may be used in the calculation.)

**ADDITIONAL INFORMATION:** *Particulate matter emissions from stacks serving only emission units listed in Appendix A of the Application Guide and stacks serving only as general building ventilation need not be included in this calculation.*

**ADDITIONAL INFORMATION:** *To be eligible for the Type A Registration Permits, facilities that have maximum controlled emissions of particulate matter equal to or greater than 5 tons per year must demonstrate through an air quality modeling analysis that ambient air quality standards for particulate matter are protected. You must fill out the appropriate sections of the Modeling Assessment, which is available as an Appendix to this Application Worksheet (See Attachment 2 of the Application Guide). The completed Appendix will need to be mailed to the Department with your signed Registration Permit Application.*

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### **What does this question mean?**

In order to protect ambient air quality standards the Registration Operation Permit contains the annual cap on emissions (see section 7) and special stack requirements (see section 9) Particulate matter is the one pollutant whose standards may not always be protected by these requirements, and it is also a commonly emitted pollutant at the small facilities likely to be eligible for the Registration Permits. Therefore, it was necessary to include special conditions in the Registration Permit to protect the 24-hour standard for particulate matter. Facilities with *maximum controlled emissions* below 5 tons per year are small sources of particulate matter and the DNR can safely assume that their emissions will not violate an air standard. However, if your facility has maximum controlled emissions of particulate matter equal to or greater than 5 tons per year, an air quality computer model will need to be run as part of the review of your Registration Permit application. If your stacks meet the Registration Permit requirements (see Section 9) then the DNR will perform this modeling for you. If one or more of your stacks do not meet the Registration Permit stack requirements, then you will be required to produce your own modeling results and submit them with your application for coverage.

### **How do I calculate my Maximum Controlled Emissions of Particulate matter?**

First you need to figure out which emission units to include in your calculation. The emission units listed in Appendix A do not need to be included. Also, you do not need to worry about emissions from general building ventilation, so if you have particulate matter coming off a process line that is vented to the inside of your building, you do not need to try to figure out how much is coming out general building vents.

Second you need to calculate the maximum hourly emissions of particulate matter from all the other emission units at your facility. This is done by using the maximum rated capacity and either emission factors published by USEPA, the equipment manufacturer, trade associations, or from stack testing data. See section 7., Emission Cap, for sample calculations.

Third, if you use a control device on the emission unit to control emissions of particulate matter, you may use the control efficiency to reduce the maximum hourly emissions. These are the maximum controlled hourly emissions. Only control devices listed in the Registration Permit or listed in an applicable requirement that the emission unit is subject to may be used in this calculation. Also, only the control efficiency listed in the Registration Permit for that control device may be used unless a higher control efficiency is required in an applicable requirement that the emission unit is subject to. For more information on control devices, see section 6.

Finally, you are ready to calculate the annual maximum controlled emissions. Multiply the maximum controlled hourly emissions by 8760 hours per year to get the annual emission rate. If it is not physically possible to operate 8760 hours per year, you are allowed to take into consideration realistic operating scenarios. For example, if you cannot operate when the ground is frozen you may take that into consideration. If your operation is a batch process that requires a certain amount of down time to change out batches or equipment you may also consider this when figuring out your maximum hours of operation. Keep a written copy of how you calculated your annual maximum controlled emissions and a justification of the hours per year you used if less than 8760.

***What do I do if my particulate matter emissions are at or over 5 tons per year?***

If the annual maximum controlled particulate matter emissions from your facility are greater than or equal to 5 tons per year then air quality modeling must be performed for your facility. If you meet the Registration Permit stack requirements (see section 9) then the Department will perform modeling for you. Fill out Part 2 of the Modeling Assessment Appendix to the Application Worksheet, available with this document as Attachment 2, complete and submit it with your signed Registration Permit application. The Department will perform air quality modeling and let you know whether or not your facility is eligible to be covered under the Registration Permit within 15 days of receipt of the complete signed application.

Even if your stacks meet the Registration Permit stack requirements, you may have modeling results from previous modeling performed at your facility. If this is the case, fill out Part 1 of the Modeling Assessment Appendix to the Application Worksheet with the results of the particulate matter modeling and submit the form with the signed hard copy of your Registration Permit Application.

Finally, if your stacks do not meet the Registration Permit stack requirements, you will be required to provide air quality modeling results for all pollutants at your facility. Proceed to section 9 and provide modeling results for particulate matter as well as any other air pollutants using Part 1 of the Modeling Assessment Appendix to the Application Worksheet. See section 9 for more information on air quality modeling and which emissions sources and pollutants will need to be modeled.

***What if I still need help in calculating my maximum controlled emissions of particulate matter?***

If you still need assistance in answering this question, you may contact the Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at Kristin.Hart@dnr.state.wi.us, for additional help.

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**Question 8. – Answers and Results:**

Does your facility have maximum controlled emissions of particulate matter which are less than 5 tons per year? (Don't include particulate matter from stacks used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide. Do calculate emissions by using your maximum controlled hourly emission rate multiplied by 8760 hours per year. If an emission unit's physical design makes it impossible to operate 8760 hours per year, reasonable operating scenarios with fewer operating hours per year may be used in the calculation.)

- If you answer YES go on to question 9.
  - If you answer NO, then an air quality modeling analysis must be completed for your facility. Fill out the Modeling Assessment (see Attachment 2 of this Application Guide). You must complete either Part I or Part 2 of the Appendix. Go to question 9 to determine which part.
-

## 9. Allowed Stack Configurations and Air Quality Modeling

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### **Question 9:**

Do all of the stacks at your facility meet *both* of the following requirements (Don't include those stacks used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide):

- (a) All stacks have an unobstructed discharge within 10 degrees of vertical. *Valves designed to open and close at the point of discharge are considered to be unobstructed if they are open at the time of emission; and*
- (b) All stacks are taller than any building that influences the dispersion of emissions from the stack. *A building is considered to influence the dispersion of emissions from any stack that exists within a distance from the building of 5 times the building height.*

**ADDITIONAL INFORMATION:** *To be eligible for the Type A Registration Permits all of your facility's stacks (except those used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide must meet these requirements OR alternatively, you can perform an air quality modeling analysis for your facility to demonstrate that, with your facility's current stack configuration, your emissions will not result in a violation of any air quality standard.*

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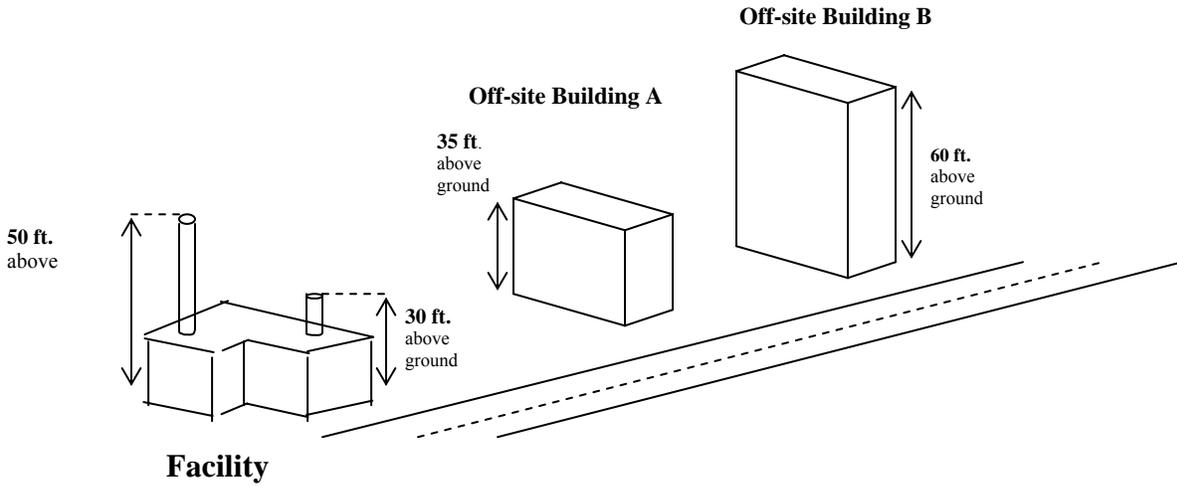
### ***What does this question mean?***

A Facility will meet the Registration Permit stack requirements if all stacks at the facility other than stacks that are general building ventilation or stacks venting the emission units listed in Appendix A, can meet the following.:

- The stacks at the facility must be taller than all buildings on which they are located and all buildings that could significantly influence the stacks' emissions as they spread out from their exhaust points into the surrounding area (see example below for how this is determined). A building is considered to influence a stack's emissions if the stack is located within 5 building heights of that building.
- All stacks at the facility must discharge upwards (within 10 degrees of vertical). If a facility has any stacks that do not exhaust within 10 degrees of vertical, the facility does not qualify for the Registration Permit.
- All stacks at the facility must discharge to the atmosphere without alteration of flow due to an obstruction (e.g., rainhat) while the process they serve is operating.

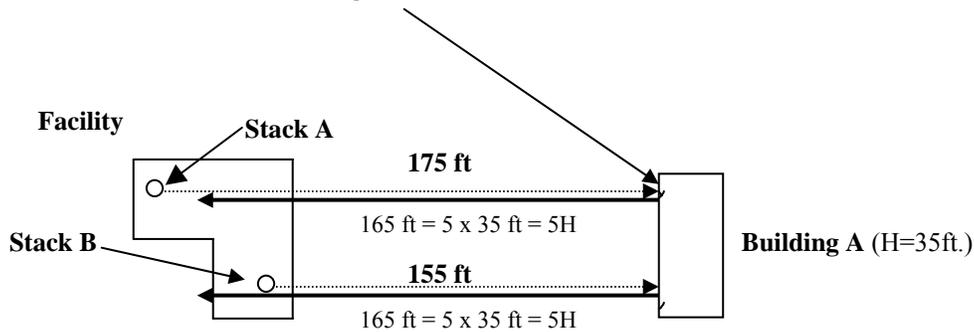
See the Diagram on the Next page

**Figure 9.1 Stack heights Relative to Nearby Buildings (Side Perspective-- not to scale)**



**Figure 9.2 Stack heights Relative to Nearby Buildings (Top View-- not to scale)**

This edge (side) of Building A is the shortest distance between Stack A and Building A.



In the example depicted in Figures 9.1 and 9.2, all facility stacks and nearby buildings should be individually evaluated in all combinations by determining the nearest point on a given building's perimeter (e.g. Building A) to the stack being evaluated (e.g. Stack A) and then checking whether the distance between that point and the stack is less than five times the building's (e.g. Building A) height (**the "5H-range"**). In this example, only the 30-foot stack at the facility is within the 5H-range of Building A. Since Building A has a height of 35 feet, the height of Stack A would have to be raised to higher than 35 feet, in order to answer YES to Question 9.

To illustrate other possible cases, here are several variations of this example:

- Consider the possibility that Building B was located close enough to the facility that the 50-foot stack was within the 5H-range for Building B. In that case, that stack would have to be raised above 60 feet in order to answer YES to Question 9.
- Consider the case where Building A had a height of 25 feet. In that case, the 30-foot Stack B would be greater than that building's height and, if all other facility stacks meet the 5H-range test for all nearby buildings, then you could answer YES to Question 9.
- Consider the case where Building A was located on the Facility's property and was owned by the facility. Ownership of buildings and whether the locations of buildings are on or off the facility's property are not taken into consideration. In

other words, all buildings, whether owned by the facility or not and whether located on the facility's property or not, must be evaluated if they are possibly within the 5H-range for one or more facility stacks.

- There may be buildings all around a facility which require evaluation, rather than just a few along a single street, and in that case their 5H-ranges would also require comparison to the facility's stack locations.
- If there are no buildings in the usual sense, but there are large structures on or off the facility, their heights and proximity to facility stacks must be evaluated if they can be expected to influence the dispersion of emissions from a stack.
- Finally, consider the case where the facility has a stack attached to the side of its own building but that stack is not taller than that building. In this case, the stack height must be raised above the building height, in order to answer YES to Question 9, assuming that no other nearby buildings would require the stack to be raised even higher.

Again, some stacks do not need to be considered when determining if the facility meets the stack requirements. These include stacks whose only purpose is for general building ventilation and stacks that serve emission units listed in Appendix A of this Guide.

***What if any one of my stacks do not meet the stack requirements?***

If any of the stacks at your facility do not meet the requirements listed above, you may still be able to qualify for coverage under the Registration Permit. You can use air quality modeling performed previously as part of issuance of an operation permit, or you can choose to perform a computer modeling analysis to determine whether the predicted impact from your facility meets air quality standards.

***How can I use my old operation permit to determine if my stacks are OK?***

If your facility was modeled by DNR for issuance of a facility wide operation permit, you may use those modeling results to show that your facility meets ambient air quality standards. As part of the evaluation of whether or not your old permits can be revoked DNR will perform a review of the ambient air quality standards. If your emission rates as allowed under the Registration Permit at current stack configurations are not protective of air quality standards, your old facility-side permit won't be revoked and you won't be able to apply for coverage under this permit. But if they are protective DNR will send you a letter allowing you to proceed with applying for coverage under this permit. If facility wide modeling data is available for the entire facility, this letter will indicate that current stack configurations and allowable emissions rates are protective of ambient air quality. Use this information in your revocation approval letter to fill out Part 1 of the Modeling Assessment Appendix to the Application Worksheet and send it in with the signed copy of your Registration Permit application. For more information check out the Revocation Fact Sheet available at <http://www.dnr.state.wi.us/org/aw/air/apii/regpermits.html>.

***How can I do my own computer modeling to determine if my stacks are OK?***

If you do not have any previous modeling, the SCREEN model is a simple, conservative, model that can be used for this task. If the SCREEN model predicts that any of the pollutant emissions from your facility may exceed an air quality standard, you may choose to perform a more refined modeling analysis using the current USEPA-accepted refined model. The refined model is a complex model that will typically require the help of a trained consultant. The Wisconsin DNR's modeling website is located here: <http://www.dnr.wi.gov/org/aw/air/modeling/>. Whether you run SCREEN yourself or hire a consultant to run a more refined model, you will need to make sure you use the correct emission rates in the modeling analysis.

***Which pollutants do I need to include in my modeling analysis?***

First you need to figure out which emission units and pollutants to include in your modeling analysis. The emission units listed in Appendix A do not need to be included. Also, you do not need to worry about emissions from general building ventilation. The modeling required in this section is only for particulate matter, sulfur dioxide, nitrogen oxide, carbon monoxide, and lead. You do not need to provide results for hazardous air pollutants with your application for coverage under this Registration Permit although you will need to be able to demonstrate compliance with ch. NR 445 when you do your annual certification of compliance with the Registration Permit.

If the maximum controlled facility-wide emissions of particulate matter, sulfur dioxide, nitrogen oxide, carbon monoxide or lead is less than 5 tons per year, then you do not need to provide modeling results for that pollutant. If the maximum

controlled emissions of all pollutants from any single emission unit are all less than 1 ton per year, that emission unit does not need to be included in the model.

To calculate the maximum controlled annual emissions first calculate the maximum controlled hourly emissions as described below. Then multiply the maximum controlled hourly emissions by 8760 hours per year to get the annual emission rate. If it is not physically possible to operate 8760 hours per year, you are allowed to take into consideration realistic operating scenarios. For example, if you cannot operate when the ground is frozen you may omit months where the ground is frozen from your calculations. If your operation is a batch process that requires a certain amount of down time to change out batches or equipment you may use fewer operating hours per year. Keep a written copy of how you calculated your annual maximum controlled emissions and a justification of the hours per year you used if less than 8760.

***How do I calculate the emission rates to use in the model?***

The emission rates that must be used in the model are the maximum controlled hourly emission rates. To calculate the maximum controlled hourly emissions of air pollutants use the maximum rated capacity of each unit and either emission factors published by USEPA, the equipment manufacturer, trade associations, or emission factors developed from stack testing data at your facility. See section 7., Emission Cap, for more information on ways to calculate your maximum hourly emissions.

If you use a control device on the emission unit to control emissions of particulate matter, use the control efficiency to reduce the maximum hourly emissions. These are the maximum controlled hourly emissions. Only control devices listed in the Registration Permit or listed in an applicable requirement that the emission unit is subject to may be used in this calculation. Also, only the control efficiency listed in the Registration Permit for that control device may be used unless a higher control efficiency is required in an applicable requirement that the emission unit is subject to. For more information on control devices, see section 6.

***How do I find and then run the SCREEN model?***

The SCREEN model is acceptable for use by facilities wishing to model for a Registration Permit. SCREEN allows for a relatively quick analysis of impacts from a facility. You can download the latest version of the SCREEN model from EPA's website here: <http://www.epa.gov/scram001/tt22.htm#screen>. The WDNR also has created a user friendly guidance document on how to use the SCREEN model, which is available here: <http://www.dnr.wi.gov/org/aw/air/modeling/PDF/scr2doc.pdf> [PDF format].

***How do I use other computer models to determine if my stacks are OK?***

If SCREEN model predicts that any of the pollutant emissions from your facility may exceed an air quality standard, you may choose to perform a more refined modeling analysis using current USEPA accepted refined air quality models. DNR does not provide detailed guidance on how to use these models. You will need either in-house expertise to use them or you can consider hiring a consulting firm to perform the modeling for you. Be sure any consultant you hire understands how to calculate the emission rates to use in the model. Please refer to the discussion above on how to calculate emission rates for use in modeling analyses.

***What do I need to do prove that my facility passes modeling?***

You will need to click the link in the Registration Permit application to print and fill out Part 1 of the Modeling Assessment Appendix to the Application worksheet and send it in with the signed copy of your Registration Permit application. You will also need to keep either an electronic or paper copy of the modeling analysis input and output on site and available for inspection for the duration of your facility's coverage under the Registration Permit.

***What if I still need assistance in answering this question?***

- You may contact the Registration Permit Coordinator, Kristin Hart at (608) 273-5605, or email at [Kristin.Hart@dnr.state.wi.us](mailto:Kristin.Hart@dnr.state.wi.us), for additional help in determining if your stacks meet the stack requirements of the Registration Permit or for direction on determining how to get an air quality modelling assessment done for your facility.

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**Question 9. – Answers and Results:**

Do all of the stacks at your facility meet *both* of the following requirements (Don't include those stacks used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide):

**(a)** All stacks have an unobstructed discharge within 10 degrees of vertical. *Valves designed to open and close at the point of discharge are considered to be unobstructed if they are open at the time of emission; and*

**(b)** All stacks are taller than any building that influences the dispersion of emissions from the stack. *A building is considered to influence the dispersion of emissions from any stack that exists within a distance from the building of 5 times the building height.*

- If you answered YES to this question and also YES to question 8, then you are eligible for the Registration Permits and may proceed to the Online Application.
  - If you answered YES to this question and NO to question 8 then you can ask the Department to perform air quality modeling for your facility by filling out Part 2 of the Modeling Assessment, available as an Appendix to the worksheet. You will need to mail this Appendix and any required attachments with your signed Registration Permits Application. Please proceed to the Online Application.
  - If you answered NO to this question then you must provide the DNR with the results of an air quality modeling assessment that shows your existing stack configurations and maximum emission rates are protective of air quality standards. Fill out Part I the Modeling Assessment. See Attachment 2. You will need to mail the Appendix with your signed Registration Permits Application. Please proceed to the Online Application.
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## **APPENDIX A – Emission Units Not Subject To Certain Registration Operation Permit Requirements**

1. Convenience space heating units with heat input capacity of less than 5 million Btu per hour that burn gaseous fuels, liquid fuels or wood
2. Convenience water heating
3. Maintenance of grounds, equipment and buildings, including lawn care, pest control, grinding, cutting, welding, painting, woodworking, general repairs and cleaning, but not including use of organic compounds as clean-up solvents
4. Boiler, turbine, generator, heating and air conditioning maintenance
5. Pollution control equipment maintenance
6. Internal combustion engines used for warehousing and material transport, forklifts and courier vehicles, front end loaders, graders and trucks, carts and maintenance trucks
7. Fire control equipment
8. Janitorial activities
9. Office activities
10. Fuel oil storage tanks with a capacity of 10,000 gallons or less
11. Stockpiled contaminated soils
12. Demineralization and oxygen scavenging of water for boilers.
13. Purging of natural gas lines.
14. Any emission unit, operation, or activity that has, for each air contaminant, maximum controlled emissions that are less than the level specified in Table 3 of ch. NR 407, Wis. Adm. Code. Multiple emissions units, operations, or activities that perform identical or similar functions shall be combined for the purposes of this determination.
15. If the maximum controlled emissions of any air contaminants listed in Table 3 of ch. NR 407, Wis. Adm. Code, from all emission units, operations or activities at a facility are less than 5 times the level specified in Table 3, for those air contaminants, any emission unit operation or activity that emits only those air contaminants.

NOTE: You may view Table 3 of ch. NR 407, Wis. Adm. Code, here:  
<http://www.legis.state.wi.us/rsb/code/nr/nr407.pdf> [PDF format]

## **APPENDIX B - Categories of Sources Required to Include Fugitive Particulate Matter Emissions in Their Emission Calculations**

- Coal cleaning plants with thermal dryers
- Kraft pulp mills
- Portland cement plants
- Primary zinc smelters
- Iron and steel mills
- Primary aluminum ore reduction plants
- Primary copper smelters
- Hydrofluoric, sulfuric or nitric acid plants
- Petroleum refineries
- Lime plants
- Phosphate rock processing plants
- Coke oven batteries
- Sulfur recovery plants
- Carbon black plants, furnace process
- Primary lead smelters
- Fuel conversion plants
- Sintering plants
- Secondary metal production plants
- Chemical process plants
- Fossil-fuel boilers, or combination thereof, totaling more than 250 million BTU per hour heat input
- Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels
- Taconite ore processing plants
- Glass fiber processing plants
- Charcoal production plants
- Fossil-fuel-fired steam electric plants of more than 250 million BTU per hour heat input
- All other categories regulated by a standard under section 111 (New Source Performance Standards) of the act

## APPENDIX C – MACT Source Categories

For promulgation dates and other information, go to EPA's website: <http://www.epa.gov/ttn/atw/mactfnlalph.html>

Aerospace	
Asbestos	
Asphalt Processing and Asphalt Roofing Manufacturing	
Auto & Light Duty Truck (surface coating)	
Benzene Waste Operations*	
Boat Manufacturing	
Brick and Structural Clay Products Manufacturing	
Clay Ceramics Manufacturing	
Cellulose Products Manufacturing/Miscellaneous Viscose Processes	
• Cellulose Food Casing	
• Rayon	
• Cellulosic Sponge	
• Cellophane	
• Cellulose Ethers Production	
• Caroxymethyl Cellulose	
• Methyl Cellulose	
• Cellulose Ethers	
Chromium Electroplating	
• Chromic Acid Anodizing	
• Decorative Chromium Electroplating	
• Hard Chromium Electroplating	
Clean Air Mercury Rule	
Coke Ovens: Pushing, Quenching, & Battery Stacks*	
Coke Ovens	
• Charging, Top Side, and Door Leaks	
Combustion Sources at Kraft, Soda, and Sulfite Pulp & Paper Mills (Pulp and Paper MACT II)	
Commercial Sterilizers	
• Commercial Sterilization Facilities	
Degreasing Organic Cleaners	
• Halogenated Solvent Cleaners	
Dry Cleaning	
• Commercial drycleaning dry-to-dry	
• Commercial drycleaning transfer machines	
• Industrial drycleaning dry-to-dry	
• Industrial drycleaning transfer machines	
Engine Test Cells/Stand (Combined with Rocket Testing Facilities)	
Fabric Printing, Coating & Dyeing	
Ferroalloys Production	
Flexible Polyurethane Foam Fabrication Operation	
Flexible Polyurethane Foam Production	
Friction Products Manufacturing	
Gasoline Distribution (Stage 1)	
General Provisions	
Generic MACT +	
• Acetal Resins	
	• Hydrogen Fluoride
	• Polycarbonates Production
	• Acrylic/Modacrylic Fibers
	Generic MACT +
	• Carbon black production
	• Cyanide chemicals mfg.
	• Ethylene processes
	• Spandex production
	Hazardous Waste Combustion
	• Hazardous Waste Incinerators (A)
	• Hazardous Waste Incinerators (M)
	Hazardous Organic NESHAP (Synthetic Organic Chemical Manufacturing Industry)
	Hydrochloric Acid Production
	• Fumed Silica Production
	Industrial, Commercial and Institutional Boilers and Process Heaters
	Industrial Cooling Towers
	Integrated Iron and Steel
	Iron and Steel Foundries*
	Large Appliances (surface coating)
	Leather Finishing Operations
	Lime Manufacturing
	Magnetic Tape (surface coating)
	Manufacturing Nutritional Yeast (formerly Bakers Yeast)
	Marine Vessel Loading Operations
	Mercury Cell Chlor-Alkali Plants (formerly Chlorine Production)
	Metal Can (surface coating)
	Metal Coil (surface coating)
	Metal Furniture (surface coating)
	Mineral Wool Production
	Misc. Coating Manufacturing
	Misc. Metal Parts and Products (surface coating)
	• Asphalt/Coal Tar Application to Metal Pipes
	Misc. Organic Chemical Production and Processes (MON)
	• Alkyd Resins Production
	• Ammonium Sulfate Production
	• Benzyltrimethylammonium Chloride Prod.
	• Carbonyl Sulfide Production
	• Chelating Agents Production
	• Chlorinated Paraffins Production
	• Ethylidene Norbornene Production
	• Explosives Production
	• Hydrazine Production
	• Maleic Anhydride Copolymers Production

- Manufacture of Paints, Coatings, & Adhesives
- OBPA/1, 3-diisocyanate Production
- Photographic Chemicals Production
- Phthalate Plasticizers Production
- Polyester Resins Production
- Polymerized Vinylidene Chloride Prod.
- Polymethyl Methacrylate Resins Prod.
- Polyvinyl Acetate Emulsions Prod.
- Polyvinyl Alcohol Production
- Polyvinyl Butyral Production
- Quaternary Ammonium Comp. Prod.
- Rubber Chemicals Production
- Symmetrical Tetrachloropyridine Production

Municipal Solid Waste Landfills

Natural Gas Transmission and Storage

Off-Site Waste Recovery Operations

Oil & Natural Gas Production

Organic Liquids Distribution (non-gasoline)

Paper and Other Web (surface coating)

Pesticide Active Ingredient Production

- 4-Chloro-2-Methyl Acid Production
- 2,4 Salts & Esters Production
- 4,6-dinitro-o-cresol Production
- Butadiene Furfural Cotrimer
- Captafol Production
- Captan Production
- Chloroneb Production
- Chlorothalonil Production
- Dacthal (tm) production
- Sodium Pentachlorophenate Production
- Tordon (tm) Acid Production

Petroleum Refineries

Petroleum Refineries

- Catalytic Cracking
- Catalytic Reforming
- Sulfur Plant Units
- Associated Bypass Lines

Pharmaceuticals Production

Phosphoric Acid/Phosphate Fertilizers

Plastic Parts (surface coating)

Plywood and Composite Wood Products (formerly  
Plywood and Particle Board Manufacturing)

Polyether Polyols Production

Polymers & Resins I

- Butyl Rubber
- Epichlorohydrin Elastomers
- Ethylene Propylene Rubber
- Hypalon (TM) Production
- Neoprene Production
- Nitrile Butadiene Rubber
- Polybutadiene Rubber
- Polysulfide Rubber
- Styrene-Butadiene Rubber & Latex

Polymers & Resins II

- Epoxy Resins Production
- Non-Nylon Polyamides Production

Polymers & Resins III

- Amino Resins
- Phenolic Resins

Polymers & Resins IV

- Acrylonitrile-Butadiene-Styrene
- Methyl Methacrylate-Acrylonitrile+
- Methyl Methacrylate-Butadiene++
- Polystyrene
- Styrene Acrylonitrile
- Polyethylene Terephthalate
- Nitrile Resins

Polyvinyl Chloride and Copolymers Production

Portland Cement Manufacturing

Primary Aluminum

Primary Lead Smelting

Primary Copper

Primary Magnesium Refining

Printing and Publishing (surface coating)

Publicly Owned Treatment Works (POTW)

Pulp & Paper (non-combust) MACT I

Pulp & Paper (non-chem) MACT III

Reciprocating Internal Combustion Engines (RICE)  
(NESHAP/NSPS)

Refractory Products Manufacturing

Reinforced Plastic Composites Production

Rubber Tire Manufacturing

Secondary Aluminum

Secondary Lead Smelters

Semiconductor Manufacturing

Shipbuilding & Ship Repair (surface coating)

Site Remediation

Solvent Extraction for Vegetable Oil Production

Stationary Combustion Turbines\*

Steel Pickling-HCL Process

Taconite Iron Ore Processing

Tetrahydrobenzaldehyde Manufacture (Formerly  
Butadiene Dimers Production)

Wet Formed Fiberglass Mat Production

Wood Building Products (surface coating) (formerly  
Flat Wood Paneling Products)

Wood Furniture (surface coating)

Wool Fiberglass Manufacturing

## APPENDIX D – Federally Regulated Hazardous Air Pollutants listed in s. 112(b) Clean Air Act

CAS Chemical Number Name	98828 Cumene
75070 Acetaldehyde	
60355 Acetamide	
75058 Acetonitrile	
98862 Acetophenone	
53963 2-Acetylaminofluorene	
107028 Acrolein	
79061 Acrylamide	
79107 Acrylic acid	
107131 Acrylonitrile	
107051 Allyl chloride	
92671 4-Aminobiphenyl	
62533 Aniline	
90040 o-Anisidine	
1332214 Asbestos	
71432 Benzene (including benzene from gasoline)	
92875 Benzidine	
98077 Benzotrichloride	
100447 Benzyl chloride	
92524 Biphenyl	
117817 Bis(2-ethylhexyl)phthalate (DEHP)	
542881 Bis(chloromethyl)ether	
75252 Bromoform	
106990 1,3-Butadiene	
156627 Calcium cyanamide	
105602 Caprolactam	
133062 Captan	
63252 Carbaryl	
75150 Carbon disulfide	
56235 Carbon tetrachloride	
463581 Carbonyl sulfide	
120809 Catechol	
133904 Chloramben	
57749 Chlordane	
7782505 Chlorine	
79118 Chloroacetic acid	
532274 2-Chloroacetophenone	
108907 Chlorobenzene	
510156 Chlorobenzilate	
67663 Chloroform	
107302 Chloromethyl methyl ether	
126998 Chloroprene	
1319773 Cresols/Cresylic acid (isomers and mixture)	
95487 o-Cresol	
108394 m-Cresol	
106445 p-Cresol	

**CAS Chemical  
Number Name**

94757 2,4-D, salts and esters  
3547044 DDE  
334883 Diazomethane  
132649 Dibenzofurans  
96128 1,2-Dibromo-3-chloropropane  
84742 Dibutylphthalate  
106467 1,4-Dichlorobenzene(p)  
91941 3,3'-Dichlorobenzidene  
111444 Dichloroethyl ether  
(Bis(2-chloroethyl)ether)  
542756 1,3-Dichloropropene  
62737 Dichlorvos  
111422 Diethanolamine  
121697 N,N-Diethyl aniline  
(N,N-Dimethylaniline)  
64675 Diethyl sulfate  
119904 3,3'-Dimethoxybenzidine  
60117 Dimethyl aminoazobenzene  
119937 3,3'-Dimethyl benzidine  
79447 Dimethyl carbamoyl chloride  
68122 Dimethyl formamide  
57147 1,1-Dimethyl hydrazine  
131113 Dimethyl phthalate  
77781 Dimethyl sulfate  
534521 4,6-Dinitro-o-cresol, and salts  
51285 2,4-Dinitrophenol  
121142 2,4-Dinitrotoluene  
123911 1,4-Dioxane (1,4-Diethyleneoxide)  
122667 1,2-Diphenylhydrazine  
106898 Epichlorohydrin  
(1-Chloro-2,3-epoxypropane)  
106887 1,2-Epoxybutane  
140885 Ethyl acrylate  
100414 Ethyl benzene  
51796 Ethyl carbamate (Urethane)  
75003 Ethyl chloride (Chloroethane)  
106934 Ethylene dibromide (Dibromoethane)  
107062 Ethylene dichloride  
(1,2-Dichloroethane)  
107211 Ethylene glycol  
151564 Ethylene imine (Aziridine)  
75218 Ethylene oxide  
96457 Ethylene thiourea  
75343 Ethylidene dichloride  
(1,1-Dichloroethane)  
50000 Formaldehyde  
76448 Heptachlor

**CAS Chemical  
Number Name**

118741 Hexachlorobenzene  
87683 Hexachlorobutadiene  
77474 Hexachlorocyclopentadiene  
67721 Hexachloroethane  
822060 Hexamethylene-1,6-diisocyanate  
680319 Hexamethylphosphoramide  
110543 Hexane  
302012 Hydrazine  
7647010 Hydrochloric acid  
7664393 Hydrogen fluoride (Hydrofluoric  
acid)  
7783064 Hydrogen sulfide  
123319 Hydroquinone  
78591 Isophorone  
58899 Lindane (all isomers)  
108316 Maleic anhydride  
67561 Methanol  
72435 Methoxychlor  
74839 Methyl bromide (Bromomethane)  
74873 Methyl chloride (Chloromethane)  
71556 Methyl chloroform  
(1,1,1-Trichloroethane)  
60344 Methyl hydrazine  
74884 Methyl iodide (Iodomethane)  
108101 Methyl isobutyl ketone (Hexone)  
624839 Methyl isocyanate  
80626 Methyl methacrylate  
1634044 Methyl tert butyl ether  
101144 4,4'-Methylene bis(2-chloroaniline)  
75092 Methylene chloride (Dichloromethane)  
101688 Methylene diphenyl diisocyanate  
(MDI)  
101779 4,4'-Methylenedianiline  
91203 Naphthalene  
98953 Nitrobenzene  
92933 4-Nitrobiphenyl  
100027 4-Nitrophenol  
79469 2-Nitropropane  
684935 N-Nitroso-N-methylurea  
62759 N-Nitrosodimethylamine  
59892 N-Nitrosomorpholine  
56382 Parathion  
82688 Pentachloronitrobenzene  
(Quintobenzene)  
87865 Pentachlorophenol  
108952 Phenol  
106503 p-Phenylenediamine  
75445 Phosgene  
7803512 Phosphine

**CAS Chemical  
Number Name**

7723140	Phosphorus	95954	2,4,5-Trichlorophenol
85449	Phthalic anhydride	88062	2,4,6-Trichlorophenol
1336363	Polychlorinated biphenyls (Aroclors)	121448	Triethylamine
1120714	1,3-Propane sultone	1582098	Trifluralin
57578	beta-Propiolactone	540841	2,2,4-Trimethylpentane
123386	Propionaldehyde	108054	Vinyl acetate
114261	Propoxur (Baygon)	593602	Vinyl bromide
78875	Propylene dichloride (1,2-Dichloropropane)	75014	Vinyl chloride
75569	Propylene oxide	75354	Vinylidene chloride (1,1-Dichloroethylene)
75558	1,2-Propylenimine (2-Methyl aziridine)	1330207	Xylenes (isomers and mixture)
91225	Quinoline	95476	o-Xylenes
106514	Quinone	108383	m-Xylenes
100425	Styrene	106423	p-Xylenes
96093	Styrene oxide	0	Antimony Compounds
1746016	2,3,7,8-Tetrachlorodibenzo-p- dioxin	0	Arsenic Compounds (inorganic including arsine)
79345	1,1,2,2-Tetrachloroethane	0	Beryllium Compounds
127184	Tetrachloroethylene (Perchloroethylene)	0	Cadmium Compounds
7550450	Titanium tetrachloride	0	Chromium Compounds
108883	Toluene	0	Cobalt Compounds
95807	2,4-Toluene diamine	0	Coke Oven Emissions
584849	2,4-Toluene diisocyanate	0	Cyanide Compounds <sup>1</sup>
95534	o-Toluidine	0	Glycol ethers <sup>2</sup>
8001352	Toxaphene (chlorinated camphene)	0	Lead Compounds
	1208211,2,4-Trichloroben- zene	0	Manganese Compounds
79005	1,1,2-Trichloroethane	0	Mercury Compounds
79016	Trichloroethylene	0	Fine mineral fibers <sup>3</sup>
		0	Nickel Compounds
		0	Polycyclic Organic Matter <sup>4</sup>
		0	Radionuclides (including radon) <sup>5</sup>
		0	Selenium Compounds

NOTE: For all listings above that contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

<sup>1</sup> X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)<sub>2</sub>

<sup>2</sup> Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub> - OR' where

n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH<sub>2</sub>CH)<sub>n</sub>-OH. Polymers are excluded from the glycol category.

<sup>3</sup> Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

<sup>4</sup> Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 ½ C.

<sup>5</sup> A type of atom which spontaneously undergoes radioactive decay.

**ATTACHMENT 1 – Revocation Form**

State of Wisconsin  
Department of Natural Resources  
P.O. Box 7921, Madison WI 53707-7921  
dnr.wi.gov

**Air Pollution Control Permit And Order Revocation  
Request Form For Sources Seeking Type A  
Registration Permits**  
Draft Form 4530-157 (R 06/06)

**Notice:** *This form is required under ss. NR 406.11(3) and 407.15(4), Wis. Adm. Code. Applicants for Type A Registration Construction and Operation Permits are required to complete a written request for revocation of existing construction and operation permits under ss NR 406.11(3) and 407.15(4), Wis. Adm. Code. Failure to submit complete information as required on this form may be grounds for denial of the request. It is not the Department's intention to use any personally identifiable information from this form for any other purpose. Wisconsin's Open Records law requires the Department to provide this information to others upon request [ss. 19.31 - 19.69, Wis. Stats.]. Read instructions before completing this form.*

*This form is for facilities considering coverage under the Type A Registration Operation and Construction Permits. If you want to request revocation of your facility's air pollution control permits and/or orders for a reason other than eligibility for a Type A Registration Operation Permit do not use this form. Instead, please submit a written request, by letter, to the address contained on this form, stating the permits and orders you wish to revoke and the reason for the requesting revocation.*

---

1. Facility name and Name  
mailing address Street or Route  
City, State, Zip Code

---

2. Facility location Street Address  
City, County

---

3. Parent corporation Name  
Street or Route  
City, State, Zip Code  
Country (if not U.S.)

---

4. Responsible official Name  
Title  
Telephone

---

5. Permit contact person Name  
Title  
Telephone  
Fax  
E-mail

---

6. Facility identification number (FID):

---

7. List all air pollution control construction and operation permits and orders for which you are requesting revocation. Include the Permit or Order Number and Date Issued. Note that you should list all permits and orders that have been issued to your facility.

---

Revocation Form

8. SIGNATURE OF RESPONSIBLE OFFICIAL	
STATEMENT OF COMPLETENESS I have reviewed this application in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this application are true, accurate and complete. I HEREBY REQUEST REVOCATION OF ALL AIR POLLUTION CONTROL CONSTRUCTION AND OPERATION PERMITS AND ORDERS ISSUED TO THIS FACILITY AS LISTED IN SECTION 7. OF THIS APPLICATION.	
Printed or Typed Name	Title
Signature	Date Signed

SEND THE ORIGINAL AND ONE COPY OF THIS COMPLETED APPLICATION TO:  
WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
BUREAU OF AIR MANAGEMENT  
OPERATION PERMIT TEAM LEADER  
P.O. BOX 7921  
MADISON, WI 53707-7921

For Department Use Only

Status:  Returned to applicant for additional information

Denied

Approved

Approval/Denial Date:

Comments:

Form 4530-157

AIR POLLUTION CONTROL CONSTRUCTION AND OPERATION PERMIT  
AND ORDER REVOCATION APPLICATION FORM INSTRUCTIONS

*Please review the Type A Registration Permit eligibility requirements before you complete and submit the form. If you are not eligible for a Type A Registration Operation Permit you should not complete this form.*

*This application form is used only to request revocation of your facility's air pollution control construction and operation permits and orders. You cannot apply for the Type A Registration Operation Permit unless and until the Department notifies you that your facility's existing air pollution control construction and operation permits and orders are revocable. Go to <http://www.dnr.wi.gov/org/aw/air/api/regpermits.html> for more information on how to apply for Registration Permits.*

- Item 1 Provide full business name and address of corporation, company, association, society, firm, partnership, individual or political subdivision of the state submitting the application.
- Item 2 Street address where the air pollution sources are located.
- Item 3 If wholly or partly owned by another entity, identify that entity.
- Item 4 The responsible official is a person legally responsible for the operation of the permitted air pollution sources. For a corporation, this person must be the president, vice-president, secretary or treasurer, or other person with a similar level of responsibility in the company. Subsection NR 400.02(80e), Wis. Adm. Code defines "responsible official."
- Item 5 List the name of the Individual to contact for additional information concerning the permits and/or orders during the revocation process.
- Item 6 Provide the facility identification (FID) number that appears on the annual emissions inventory reports.
- Item 7 List all air pollution control construction and operation permits and orders that have been issued to your facility. You must request revocation of all of these permits and orders to be eligible to apply for a Type A Registration Construction and Operation Permit. Include all air pollution permits and orders including those that have expired, have been extended, have been superseded, or have a renewal pending.
- Item 8 Review the form and the certification statement and sign and date. Send the original and one copy of the submittal to the Department and keep a copy for your records.

SEND THE ORIGINAL AND ONE COPY OF THIS COMPLETED APPLICATION TO:  
WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
BUREAU OF AIR MANAGEMENT  
AM/7 - ROP  
P.O. BOX 7921  
MADISON, WI 53707-7921

**ATTACHMENT 2 - Application Worksheet and Modeling Assessment**

# Registration Permit Application Worksheet

State of Wisconsin  
Department of Natural Resources

AIR POLLUTION CONTROL TYPE A REGISTRATION  
CONSTRUCTION AND OPERATION PERMIT APPLICATION  
Form 4530-156 rev.08-06

Notice: This Application is for coverage under the Type A Registration Operation Permit and its companion Type A Registration Construction Permit. These two permits are referred to as the Registration Permits throughout the rest of this document. Facilities must apply for coverage under the Registration Permits using this application form, as required under ss. NR 406.17(4)(a), and 407.105(4)(a), Wis. Adm. Code. Failure to submit complete information as required on the form shall be grounds for denial of the application. It is not the Department's intention to use any personally identifiable information from this form for any other purpose. Wisconsin's Open Records law requires the Department to provide this information to others upon request [ss. 19.31 - 19.39, Wis. Stats.]

Complete this Worksheet before proceeding to the Registration Permit On-line Application. See instructions on page 7. If you do not have access to the Internet, call Registration Permit Coordinator, Kristin Hart (608)273-5605 for special instructions on submitting your application.

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1. Facility name and mailing address	Name	_____
	Street or Route	_____
	City, State, Zip Code	_____

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2. Facility location	Street Address	_____
	<input type="checkbox"/> City, <input type="checkbox"/> Village, <input type="checkbox"/> Town	_____
	County	_____

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3. Parent corporation	Name	_____
	Street or Route	_____
	City, State, Zip Code	_____
	Country (if not U.S.)	_____

---

4. Responsible official	Name	_____
	Title	_____
	Telephone	_____

---

5. Permit contact person	Name	_____
	Title	_____
	Telephone	_____
	Fax	_____
	E-mail	_____

---

6. Facility SIC or NAICS code:	7. Facility identification number (FID):
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8. Briefly describe the facility to be permitted. (See instructions)

---

**ELIGIBILITY QUESTIONS:**

<p>1. Is either of the following true?</p> <p>(a) Your facility does <i>not</i> have existing air permits or orders;</p> <p>(b) Your facility has one or more existing air pollution control construction permits, operation permits, or orders, <i>and</i> you have received notification from the DNR indicating that these permits or orders can be revoked to allow your facility to be eligible for a registration operation permit.</p> <p>➤ If you answer YES go on to question 2.</p> <p>➤ If you answer NO, then you may not apply for the Registration Permits at this time. You must first apply for revocation of your existing permits. See the additional information immediately below.</p> <p><b>ADDITIONAL INFORMATION:</b> <i>If your facility has any existing air pollution control permits or orders, you must have written notification from the DNR that they can be revoked before you apply for coverage under the Registration Permits. You can request that the DNR revoke these permits and orders by using the Revocation Request form. This form and the Revocation Fact Sheet are available at <a href="http://www.dnr.wi.gov/org/aw/air/apii/regpermits.html">http://www.dnr.wi.gov/org/aw/air/apii/regpermits.html</a>. More information and forms are available in your Application Guide.</i></p>	<p><input type="checkbox"/> YES</p>	<p><input type="checkbox"/> NO</p>
<p>2. Is your facility any of the following?</p> <p>(a) An affected source under the acid rain program, ch. NR 409, Wis. Adm. Code;</p> <p>(b) A municipal solid waste combustion source as defined under S. NR 500.03(151), Wis. Adm. Code; or</p> <p>(c) An infectious waste combustion source (Note: “infections waste” is defined in s. 287.07(7)(c), Wis. Stats.)</p> <p>➤ If you answer YES, then you are not eligible for the Registration Permits.</p> <p>➤ If you answer NO go on to question 3.</p> <p><b>ADDITIONAL INFORMATION:</b> <i>Please refer to Affected Source, Municipal/Infectious Waste Combustor in Part II Section 2. of the Application Guide if you are unclear on how to answer this question.</i></p>	<p><input type="checkbox"/> YES</p>	<p><input type="checkbox"/> NO</p>
<p>3. Are any of the processes at your facility subject to Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) requirements under ch. NR 445, Wis. Adm. Code?</p> <p>➤ If you answer YES, then you are not eligible for the Registration Permits</p> <p>➤ If you answer NO go on to question 4</p> <p><b>ADDITIONAL INFORMATION:</b> <i>When answering this question you should take into consideration conditions in the Registration Permits that would limit your facility’s actual annual emissions to less than 25% of major source thresholds. Please refer to the Case-by-Case Determinations (NR 445 BACT, LAER, LACT) in Part II Section 3 of the Application Guide for additional information if you need more help answering this question.</i></p>	<p><input type="checkbox"/> YES</p>	<p><input type="checkbox"/> NO</p>

**ELIGIBILITY QUESTIONS:**

4. Is either of the following true?

- (a) Your facility is *not* subject to any Maximum Achievable Control Technology (MACT) Standard;
- (b) Your facility is subject to *only* the recordkeeping and/or notification requirements of a MACT Standard.

- If you answer YES go on to question 5.
- If you answer NO, then you are not eligible for the Registration Permits.

**ADDITIONAL INFORMATION:** Sources subject to only the recordkeeping and notification requirements of a MACT Standard are still eligible to apply. Appendix C or your Application Guide contains a list of MACT standards. Part II Section 4 of the Guide contains other useful information and links to EPA's MACT website.

YES

NO

5. Is one of the following true?

- (a) Your facility is not subject to any New Source Performance Standard (NSPS) listed in ch. NR 440, Wis. Adm. Code;
- (b) Your facility is subject to *only* an NSPS allowed by the ROP;
- (c) Your facility is subject to *only* the recordkeeping and/or notification requirements of an NSPS.

- If you answer YES go on to question 6.
- If you answer NO, then you are not eligible for the Registration Permits.

**ADDITIONAL INFORMATION:** Sources subject to only the recordkeeping and notification requirements of an NSPS are still eligible to apply. There are also some NSPS that are allowed by the permit. The list of allowed NSPS from Section H of the ROP and other useful information are available in Part II Section 5, NSPS, of your Application Guide.

YES

NO

6. Is either of the following true?

- (a) Your facility does *not* have air pollution control devices;
- (b) All air pollution control devices at your facility meet the minimum control efficiencies listed in Section G of the Type A Registration Operation Permit.

- If you answer YES go on to question 7.
- If you answer NO, then you are not eligible for the Registration Permits at this time. You may install new control equipment or modify existing control equipment to meet the control device requirements and reapply in the future.

**ADDITIONAL INFORMATION:** The minimum control efficiencies required by Section G of the Registration Operation Permit are listed in Part II Section 6, Control Efficiencies, of your Application Guide.

YES

NO

**ELIGIBILITY QUESTIONS:**

7. The Type A Registration Permit contains a cap on the annual, calendar year emissions from your facility. The cap for the Type A Registration Permits is 25% of the major source thresholds for sec. 112(b) federal hazardous air pollutants, sulfur dioxide, carbon monoxide, VOC, particulate matter, and nitrogen oxides, and a cap on lead emissions of 0.5 tons per year.

YES

NO

Are you willing and able to accept and comply with the Type A Registration Permits' caps on your facility's emissions?

- If you answer YES go on to question 8.
- If you answer NO, then you are not eligible for the Registration Permits at this time. You may install control devices, change raw materials, and/or modify equipment to reduce emissions to below these thresholds and reapply in the future.

**ADDITIONAL INFORMATION:** See Part II Section 7, Emission Caps, of your Application Guide for more information on calculating Actual Annual Emissions.

**ADDITIONAL INFORMATION:** This limit equates to annual calendar year emissions of 25 tons of PM<sub>10</sub>, 25 tons of volatile organic compounds, 25 tons of sulfur dioxide, 25 tons of nitrogen oxides, 25 tons of carbon monoxide, 0.5 tons of lead, 2.5 tons of any single sec. 112(b) federal hazardous air pollutant, and 6.25 tons of the total of all sec. 112(b) federal hazardous air pollutants emitted by the facility. Note: Because the limit is 25% of major source threshold, the amount of air pollution you may emit in any calendar year will change if the major source threshold for a pollutant changes. Such changes do not happen without warning, however, and the DNR would inform and provide compliance assistance to all affected facilities in the event that major source thresholds change in the future.

**ELIGIBILITY QUESTIONS:**

8. Does your facility have maximum controlled emissions of particulate matter which are less than 5 tons per year? (Don't include particulate matter from stacks used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide. Do calculate emissions by using your maximum controlled hourly emission rate multiplied by 8760 hours per year. If an emission unit's physical design makes it impossible to operate 8760 hours per year, reasonable operating scenarios with fewer operating hours per year may be used in the calculation.)

YES

NO

- If you answer YES go on to question 9.
- If you answer NO, then an air quality modeling analysis must be completed for your facility. Fill out the Modeling Assessment available as an Appendix to this Form. You must complete either Part I or Part 2 of the Appendix. Go to question 9 to determine which part.

**ADDITIONAL INFORMATION:** *Particulate matter emissions from stacks serving only emission units listed in Appendix A of the Application Guide and stacks serving only as general building ventilation need not be included in this calculation. See Part II Section 8, Particulate Matter, of your Application Guide for details on calculating maximum controlled emission rates.*

**ADDITIONAL INFORMATION:** *To be eligible for the Type A Registration Permits, facilities that have maximum controlled emissions of particulate matter equal to or greater than 5 tons per year must demonstrate through an air quality modeling analysis that ambient air quality standards for particulate matter are protected. You must fill out the appropriate sections of the Modeling Assessment, which is available as an Appendix to this Form. The completed Appendix will need to be mailed to the Department with your signed Registration Permit Application.*

**ELIGIBILITY QUESTIONS:**

**9.** Do all of the stacks at your facility meet *both* of the following requirements (Don't include those stacks used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide):

- (a) All stacks have an unobstructed discharge within 10 degrees of vertical. *Valves designed to open and close at the point of discharge are considered to be unobstructed if they are open at the time of emission; and*
- (b) All stacks are taller than any building that influences the dispersion of emissions from the stack. *A building is considered to influence the dispersion of emissions from any stack that exists within a distance from the building of 5 times the building height.*

- If you answered YES to this question and also YES to question 8, then you are eligible for the Registration Permits and may proceed to the Online Application. (see instructions below)
- If you answered YES to this question and NO to question 8 then you can ask the Department to perform air quality modeling for your facility by filling out Part 2 of the Modeling Assessment, available as an Appendix to this Form. You will need to mail this Appendix and any required attachments with your signed Registration Permits Application. Please proceed to the Online Application. (see instructions below)
- If you answered NO to this question then you must provide the DNR with the results of an air quality modeling assessment that shows your existing stack configurations and maximum emission rates are protective of air quality standards. Fill out Part I the Modeling Assessment See Appendix to this Form. You will need to mail the Appendix with your signed Registration Permits Application. Please proceed to the Online Application. (see instructions below).

**ADDITIONAL INFORMATION:** *To be eligible for the Type A Registration Permits all of your facility's stacks (except those used only for general building ventilation and stacks venting only emission units listed in Appendix A of the Application Guide must meet these requirements OR alternatively, you can perform an air quality modeling analysis for your facility to demonstrate that, with your facility's current stack configuration, your emissions will not result in a violation of any air quality standard. See Part II Section 9. of your Application Guide for more information on which pollutants and emission rates trigger these modeling requirements.*

YES

NO

**Instructions**

After you have completed this application worksheet, you are ready to apply for the Registration Permits. If you do not have Internet access, contact Registration Permit Coordinator Kristin Hart (608)273-5605 for special instructions on submitting your application. All other applicants, go to <http://dnr.wi.gov/org/aw/air/apii/regpermits.html> and click the link to the Registration Permit Applications. Use your worksheet to complete the on-line application. After you have answered all the questions, follow the on-line instructions and print out the final application. The **responsible official** for the facility must sign and date the application. If required, attach the Modeling Assessment and any other supporting documents. Keep a copy of the entire package for your files and mail the original to:

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
BUREAU OF AIR MANAGEMENT  
AM/7 - ROP  
P.O. BOX 7921  
MADISON, WI 53707-7921

## **Instructions**

### **General Facility Questions**

#### **1. Facility name and mailing address**

Provide the full business name and address of corporation, company, association, society, firm, partnership, individual or political subdivision of the state submitting the application.

#### **2. Facility location**

Specify the street address; city, town or village; and county where the facility is located. Do not use the mailing address, unless it is the same as the street address. Do not use the address of another location where a management unit or other corporate center is located. Check the appropriate box to indicate whether the location is a city, town, or village.

#### **3. Parent corporation**

If the facility is wholly or partly owned by another entity, identify that entity. If the buildings or land are rented, then identify the entity that owns and operates the equipment in the buildings on the site.

#### **4. Responsible official**

The responsible official is defined in s. NR 400.02(136), Wis. Adm. Code. "Responsible official" means one of the following:

(a) For a corporation, one of the following:

1. A president, secretary, treasurer or vice-president of the corporation in charge of a principal business function.
2. Any other person who performs similar policy or decision-making functions for the corporation.
3. A duly authorized representative of a person listed in subd. 1. or 2. if the representative is responsible for the overall operation of one or more manufacturing, production or operating facilities applying for or subject to a permit and the representative is approved in advance by the Department.

(b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(c) For a municipality, or a state, federal or other public agency: either a principal executive officer or ranking elected official. For the purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency, for example, a regional administrator of EPA.

(d) Notwithstanding pars. (a), (b) and (c), for "affected sources"<sup>8</sup>, the designated representative.

#### **5. Permit contact person**

Identify an individual who can function as the facility's primary contact for the DNR to request additional information concerning the air pollution sources during the permitting process. There are no restrictions on who can be chosen as permit contact person.

#### **6. Facility SIC or NAICS code**

There are two common standards for identifying the industrial sector which best characterizes a facility's products, services, and manufacturing processes: the standard industrial classification (SIC) code and the North American industry classification system (NAICS). For more help, consult the following websites to identify which number best identifies your facility:

<http://www.census.gov/epcd/www/naics.html>, <http://www.naics.com/search.htm>

#### **7. Facility identification number (FID)**

Provide the facility identification (FID) number that appears on the annual emissions inventory reports. If your facility has never submitted such reports and does not have an FID, then leave this blank. The DNR will assign an FID to your facility.

#### **8. Briefly describe the facility to be permitted**

In one or two paragraphs summarize the facility's products and the chemical and physical processes and equipment used to manufacture them. Include any pertinent facts about the facility's location such as whether it is rural or urban, near housing or in an industrial park. Also describe the surrounding landscape noting any features of terrain that might affect the impact of air emissions such as bluffs, valleys, nearby buildings etc.

### **Eligibility Questions**

Answer each of the 9 questions. These questions are identical to those displayed for you during your online application process. More information about each question is described in the Application Guide available at

<http://www.dnr.state.wi.us/org/aw/air/apii/regpermits.html>.

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<sup>8</sup> Here "affected sources" means facilities regulated under the acid rain program, typically large utilities.



**PART 2 – DISPERSION MODELING REQUEST**

Note: The Department will only perform dispersion modeling for particulate matter from facilities that will meet the Registration Permit stack requirements. If any stacks at your facility do not meet the stack requirements, you must perform air dispersion modeling for your facility and provide the results of air dispersion modeling in Part 1.

**Special Instructions for Part 2:**

**DO NOT COMBINE STACKS**

Each stack that vents externally and has particulate matter emissions should be listed separately

A Scaled facility plot including building heights is necessary for the timely completion of the modeling analysis. Please insure the following information is on the plot plan:

- ✓ True North
- ✓ A Scale (1 in = 100 ft, etc.)
- ✓ Clearly Marked Structures and Structure Heights
- ✓ All Externally Vented Stacks
- ✓ Any Fences, Roadways, and Physical Obstructions to Plant Property
- ✓ Property Line

**Need help filling out this Part?** If your facility reports to the air emissions inventory, stack specific information such as previously assigned stack and process identifiers, and stack modeling parameters may be available in your inventory report. Questions? Contact your regional air compliance contact or the Registration Permit Coordinator Kristin Hart (608)273-5605

Stack Identifier						
Process Identifier						
Stack Height Above Ground (ft)						
Stack Diameter or Dimensions (ft)						
Normal Exhaust Temperature (°F)						
Normal Exhaust Flow (acfm)						
Particulate Matter Emission Rate (lb/hr)						

## ATTACHMENT 1

### Registration Permit Stack Requirements:

The following requirements apply to all stacks at facilities that are covered by the Registration Operation Permit except those stacks serving emissions units listed below, and stacks serving exclusively as general building ventilation:

- a. Stack vented emissions must be exhausted from unobstructed discharge points that are within 10 degrees of vertical. Stacks that are closed when the process is not operating, but that are open when the process is operating are considered to be unobstructed.
- b. Stacks must be taller than any building that influences the dispersion of emissions from the stack. A building is considered to influence the dispersion of emissions if the stack is located within a circle around the building, the radius of which is 5 times the height of the building.

<b>EMISSION UNITS NOT SUBJECT TO ROP STACK REQUIREMENTS</b>
1. Convenience space heating units with heat input capacity of less than 5 million Btu per hour that burn gaseous fuels, liquid fuels or wood
2. Convenience water heating
3. Maintenance of grounds, equipment and buildings, including lawn care, pest control, grinding, cutting, welding, painting, woodworking, general repairs and cleaning, but not including use of organic compounds as cleanup solvents
4. Boiler, turbine, generator, heating and air conditioning maintenance
5. Pollution control equipment maintenance
6. Internal combustion engines used for warehousing and material transport, forklifts and courier vehicles, front end loaders, graders and trucks, carts and maintenance trucks
7. Fire control equipment
8. Janitorial activities
9. Office activities
10. Fuel oil storage tanks with a capacity of 10,000 gallons or less
11. Stockpiled contaminated soils
12. Demineralization and oxygen scavenging of water for boilers.
13. Purging of natural gas lines.
14. Any emission unit, operation, or activity that has, for each air contaminant, maximum controlled emissions that are less than the level specified in Table 3 of ch. NR 407, Wis. Adm. Code. Multiple emissions units, operations, or activities that perform identical or similar functions shall be combined for the purposes of this determination.
15. If the maximum controlled emissions of any air contaminants listed in Table 3 of ch. NR 407, Wis. Adm. Code, from all emission units, operations or activities at a facility are less than 5 times the level specified in Table 3, for those air contaminants, any emission unit operation or activity that emits only those air contaminants.