WISCONSIN DEPARTMENT OF NATURAL RESOURCES
NOTICE OF FINAL GUIDANCE & CERTIFICATION

Pursuant to ch. 227, Wis. Stats., the Wisconsin Department of Natural Resources has finalized and hereby certifies the following guidance document.

DOCUMENT ID

AM-19-0046

DOCUMENT TITLE

Fact Sheet for Air Pollution Construction Permit Basics

PROGRAM/BUREAU

Air Management

STATUTORY AUTHORITY OR LEGAL CITATION

Section 285.60, Wisconsin Statutes; Chapter NR 406, Wisconsin Administrative Code

DATE SENT TO LEGISLATIVE REFERENCE BUREAU (FOR PUBLIC COMMENTS)

November 25, 2019

DATE FINALIZED

December 23, 2019

No comments were received during the comment period 25NOV2019 to 16DEC2019

DNR CERTIFICATION

I have reviewed this guidance document or proposed guidance document and I certify that it complies with sections 227.10 and 227.11 of the Wisconsin Statutes. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is not explicitly required or explicitly permitted by a statute or a rule that has been lawfully promulgated. I further certify that the guidance document or proposed guidance document contains no standard, requirement, or threshold that is more restrictive than a standard, requirement, or threshold contained in the Wisconsin Statutes.

Gail E. Good

December 18, 2019

Signature

Date

Air Program Fact Sheet
Air Pollution Construction Permit Basics

November 2019

This fact sheet offers specific guidance to industrial sources of air pollution that may require a construction permit.

Do You Need a Construction Permit?

Any business looking to move to Wisconsin or any existing Wisconsin business wishing to expand, must file an application for an air pollution construction permit with the Wisconsin Department of Natural Resources (DNR). The following are activities that could trigger a construction permit:

1. **New Sources:** a facility, process line or portable source that was either constructed or modified after August 19, 1980 or to which a new emission limit applies.
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.
4. **Replacement:** to dismantle and substitute a process or facility with similar one.
5. **Relocation:** to remove a process or facility from one location and place it at a different location on-site or a new site.

Some **smaller new** or **expansion** projects with air emissions **may be exempt** from the requirement to apply for a construction permit.

Is My Project Exempt?

The construction permit exemptions are found in chapter NR 406, Wis. Adm. Code. There are three options that may allow you to be exempt from a construction permit: (1) specific exemptions, (2) actual emissions-based exemptions, or (3) general exemptions.

Specific Exemptions:

A new or expansion project will be exempt if each emissions unit being added or modified will be smaller than each of the specific exemption levels as follows:

- ❑ **Painting or coating** operations that emit or will emit no more than 1**,666 pounds of volatile organic compounds (VOCs) per month**, which are measured prior to entering any emission control device.
- ❑ **Graphic arts** operations that emit or will emit no more than **1,666 pounds of VOCs per month**, which are measured prior to entering any emission control device.
- ❑ **Motor vehicle refinishing** shops that emit or will emit no more than **1,666 pounds of VOCs per month**, which are measured prior to entering any emission control device.
- ❑ **Cold cleaning equipment** with a total air to vapor interface of 1.0 square meters or less during operation.
- ❑ **Open top vapor degreasing** equipment with a total air to vapor interface of 1.0 square meters or less during operation.
- ❑ **Dry cleaning operations** with a total maximum operating capacity for all machines of 75 pounds of clothes per hour.
- ❑ **Gasoline dispensing facilities** that dispense gasoline or other petroleum products.
- ❑ **Grain storage** facilities with an average of less than 5500 tons grain received per month.
- ❑ **Grain processing** facilities with an average of less than 4500 tons per month.

This is only a partial list of the specific exemption categories. A complete list of specific exemptions can be obtained from your local DNR permit engineer or the Small Business Environmental Assistance Program (SBEAP). If you have any emissions units that are not defined by one of the specific emissions categories you cannot be exempt under the specific exemptions. You would then evaluate whether you can meet the actual emissions-based exemptions. Review the list on the last page for operations likely to need a permit.

Actual Emissions-based Exemptions

Whether your new process line or your whole operation has emissions less than 10 tons per year for each pollutant, you may be able to use one of the actual emissions-based exemptions.
To qualify for this exemption, you must meet ALL of these levels.

- √ Criteria pollutant emissions do not exceed **10 tons per calendar year** (TPY) for each — Volatile Organic Compounds (VOCs), Particulate Matter less than 10 microns (PM_{10}), Sulfur Dioxide (SO_2), Carbon Monoxide (CO) or Nitrogen Oxides (NO_x)
- √ Lead — do not exceed 0.5 TPY
- √ State HAPs — actual emissions less than thresholds in ch. NR 445, Wis. Admin. Code
- √ Not affected by any New Source Performance Standards and National Emissions Standards for Hazardous Pollutants, unless subject solely to recordkeeping or notification requirements
- √ If using a control device to achieve these exemption levels, you must monitor the device

For more information on whether you can use one of these exemptions, review the following fact sheets:

- For a project that may meet the actual emissions exemption, review: http://dnr.wi.gov/files/PDF/pubs/am/AM387.pdf.
- For a facility where the whole operation may meet the actual emissions exemption, review: http://dnr.wi.gov/files/PDF/pubs/am/AM388.pdf.

If you cannot use one of the actual emissions-based exemptions, you may still meet the general exemption.

General Exemptions

A general exemption is based on your facility's Maximum Theoretical Emissions (MTE). This is a calculation of the greatest possible amount of air pollution your business could emit if you operated at maximum production capacity, 24 hours a day, 365 days a year, without any air pollution control devices. Your MTE needs to be less than the air operation program limits for the following different pollutants:

Pollutant	Exemption
VOCs, PM_{10}, NO_X	5.7 lbs/hour
SO_2 or CO	9 lbs/hour
A Single Federal Hazardous Air Pollutant*	10 tons/year
Combination of any Federal Hazardous Air Pollutants*	25 tons/year
Any State Hazardous Air Pollutant**	Less than ch. NR 445 table value

*There are 187 federal hazardous air pollutants as determined by the Environmental Protection Agency (EPA).
**There are over 500 state hazardous air pollutants in NR 445.
If you need help in determining whether you have any hazardous air pollutants, look at your safety data sheets, contact your suppliers or the SBEAP for help.

If your calculations show that your MTE is less than the above emission rates, your facility will not need to apply for an air operation permit. (You should keep a copy of any of the calculations you do to support your exemption claim.)

Calculation Example:

Here's a general example of how to figure out your MTE for the VOCs in a paint spraying operation:

1. Find out the highest VOC content in the material(s) you use (VOC lb/gal)
2. Determine the maximum amount of paint you can use in one hour (gal/hour)
3. Calculate how much VOC you would emit if you used this amount of material for 24 hours a day for a year. (24 hours x 365 days = 8,760 hours)

Example:

VOC per gallon:	6.7 lb/gal
Maximum usage of material:	4 gal/hr

6.7 lb/gal x 4 gal/hr = 26.8 lb/hr
26.8 lb/hr x 8760 hr/yr = 234,768 lb/yr
234,768 lb/year / 2000 lb/ton = **117 tons/yr**

When calculating emissions, make sure to include all possible sources of each air pollutant. For example, a coating operation calculating organic compound emissions should include all coatings and all clean up solvents used and you may also need to include VOCs from fuel combustion or other sources where VOCs are created in the process. The information needed for these calculations can be obtained from invoices, safety data sheets (SDS), and other information readily available from your suppliers. The USEPA has a resource of emission factors for specific processes. You can find this at: https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors.

In the previous example, the source exceeds the 5.7 pounds/hour VOC exemption and would need to apply for a construction permit. Go to the section *How Do I Apply for a Construction Permit?* below for more details.

If you determine through these calculations that your business does not need a construction permit, you should maintain sufficient records to support your determination, in case you are ever questioned. Also, you can request a letter of exemption from the DNR, if you want to keep this on file. However, DNR will issue an exemption letter only after the review of a complete application and may charge a fee for this review. In most cases, you are not under any obligation to file for an exemption if you do not need an official confirmation.

What Do I Need to Do If I'm Exempt?

It does depend on the exemption that applies to you. For example, if you meet one of the specific exemptions on VOC emissions you will need to keep records for each month that shows that your emissions stay below the exemption level of 1666 pounds VOC. As your production grows closer to that level, you will want to start looking at the permit application process. You will need to have a construction permit issued to you **before** your monthly emissions go over the 1,666 pound per month level.

How Do I Apply for a Construction Permit?

If you are not exempt from the construction permit requirements, you then need to review the permit options. There are currently three types of permits available to sources undergoing construction or expansion:

- √ Registration Operation Permits (ROP) - for those who can limit emissions to less than 25% or 50% of the major source thresholds, the permit allows you to construct without a permit so long as you meet the ROP eligibility thresholds
- √ General Operation Permits - which are only available for certain industries but also allow construction without a permit if you meet the permit criteria, and
- √ Source-specific construction permits - which are written specific to a facility's operations.

You may contact the DNR or SBEAP to get the permit application materials and instructions, or you can go online at: https://dnr.wi.gov/topic/AirPermits/Apply.html. If you have questions about how to complete the forms, contact DNR or the SBEAP to help arrange a pre-application meeting.

What Will the Application Cost?

For Registration and General permits there is no application fee. However, you will pay an annual fee based on which permit you are issued:

- Registration Operation Permits: $400
- General Construction Permits:
  - $400 if emissions capped less than 80 TPY
  - $4100 if at least 80 TPY but less than 100 TPY

When applying for a source-specific construction permit, enclose a check for $7,500, payable to *Department of Natural Resources*, when the application is submitted. Costs associated with the construction permit review process will vary depending on which requirements apply to the proposed project. Some costs are outlined below.

- $3,000 minor source review

- $12,000 major source review
- $4,500 or $12,000 for minor or major modifications (respectively)
- $2,500 for a stack test of a single pollutant, and $1,250 for each additional pollutant up to 3; maximum of $6,000 (may not be required in all permits)
- $1,000 air quality analysis for minor source
- $5,000 expedited review of a minor source (this speeds up the review of the application)

The application fee will be returned by DNR if the project does not need a construction permit. Otherwise, it will be applied to your final fee. If the final fee is calculated at less than $7,500, the remainder may also be returned. A complete listing of charges associated with a construction permit review can be found in chapter NR 410, Wis. Adm. Code (http://docs.legis.wisconsin.gov/code/admin_code/nr/400/410.pdf).

If a permit is not required, you may then begin construction immediately. **If a permit is required, DO NOT begin construction until a permit is issued by DNR.** There is always a possibility that DNR will deny your permit, if you cannot meet all the requirements that apply, so you could be in trouble if you've done anything to start on your construction before receiving a permit.

What are the Permit Review Steps?

For Registration and General Permits, the application process is very simple.

Registration Permits have a simplified process. To apply, review the Application Guides and forms found on the Registration permit options webpage: https://dnr.wi.gov/topic/AirPermits/Registration.html. A few of the questions require some calculations or collecting information.

Once the application is completed, sign the form and mail to the DNR as explained on the *How to apply for air permits* web page: https://dnr.wi.gov/topic/AirPermits/Apply.html.

General Permits also have simple application forms. For more information, go to: http://dnr.wi.gov/topic/AirPermits/Options.html and select the "general" tab.

Applying for a source-specific construction permit is a more extensive process. Complete the appropriate application forms and submit a complete application to the DNR. Forms and an explanation of how to submit the application are here: https://dnr.wi.gov/topic/AirPermits/Forms.html.

After a complete application has been submitted, DNR staff goes through the review process, which can take from 20 to 60 days or more depending on the size of the project and the current queue of applications. When the review is completed, the DNR then prepares a preliminary decision to approve or deny the application and publishes a notice in a local paper. The notice gives the public 30 days from the date the paper was published to comment on the proposed project. **This is also the facility's chance to review the permit and provide DNR with comments on elements in the permit.**

If the public shows significant interest in the proposed project or specifically requests one, the DNR will schedule a public hearing within 60 days after the end of the public comment period. Then DNR will issue or deny the construction permit within 60 days after the close of the public hearing. Note that this means a public hearing could add up to 120 days to the process. If there is minimal interest during public comment, DNR can issue the permit soon after the 30 days is up.

Now That I Have My Draft Permit?

As soon as you receive your draft permit from the DNR permit writer, **read it through carefully!** Pay attention to the specific requirements in the permit. There may be certain criteria you have to meet during construction of your process or related equipment or structures. The draft permit (during public comment) is the stage when it is easiest to negotiate if you feel certain permit requirements will be difficult to meet. Some issues to watch for:

- √ Any new or existing process may be required to perform a stack test to demonstrate emissions will meet the limits in the permit. See the *Stack Testing (SB-119)* fact sheet from SBEAP for details.
- √ Control devices and the equipment designed to capture emissions from your process and carry them to the control device or exhaust point may have to meet certain criteria. These devices may also have requirements for installation of equipment to monitor operating parameters. Consider how these may affect the design of the process.
- √ Certain requirements may dictate the type of raw materials you can use in your process. For example: painting, coating or printing operations may be limited on the VOC content of the coatings or inks applied or the amount used each month. Consider how this will affect your operations and make sure you can live with the limits.

Before you get the final permit, you can use the draft permit to get started on preparation of any documentation that will be needed. This documentation may include:

- ➔ Develop tracking sheets to be used on the unit or process line to collect compliance records.
- ➔ Setup a folder for all compliance records. Collect all "one time records", e.g., physical stack parameters, and verify compliance. Add a date and signature to records that you verify.
- ➔ Prepare any plans required by the permit. These may include: Malfunction Prevention and Abatement Plan, Fugitive Dust Control Plan, and Standard Operating Procedures.

Once You Have a Final Permit?

DO NOT just file this away as your ticket to construct and operate. The final permit outlines all the conditions you will be required to meet during the term of the permit. Read the permit CAREFULLY for any specific testing or monitoring requirements or other deadlines. Mark down deadlines and periodic requirements on a calendar as a reminder. The Air Permit Compliance Calendar, available from SBEAP's compliance web page (http://dnr.wi.gov/topic/SmallBusiness/Compliance.html) can be used to manage reminders.

It is very important to keep track of the deadlines in a construction permit, because it has a limited life of 18 months. If a facility cannot meet certain deadlines, it should talk with a DNR compliance inspector about extensions. If construction and/or required emission testing in the construction permit cannot be completed, the facility can request one 18-month extension. This must be done well in advance of the expiration date of the permit.

Contacts for assistance

- Contact the Small Business Environmental Assistance Program at 855-889-3021 or DNRsmallbusiness@wisconsin.gov.
- Air permit contact information is listed on the Air Permit Options page: https://dnr.wi.gov/topic/AirPermits/Options.html.

DISCLAIMER *—This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.*

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Wisconsin Department of Natural Resources
Bureau of Air Management
Box 7921- AM/7
Madison, WI 53707
PHONE 608-266-7718 • FAX 608-267-0560
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Common Equipment and Processes Requiring an Air Pollution Construction Permit from DNR

(Keeping in mind the specific and general exemptions mentioned earlier...)

Combustion Equipment

- Boilers for building or process heat/steam
- Bake-off ovens for parts coating conveyance systems
- Emergency generators also used for peak shaving or available to the grid
- Gas turbines
- Incinerators
- Malt/grain dryers
- Waste gas flares

Equipment that Generates Particulate Matter (Dust, Fumes, etc.)

- Concrete batch plants over 20,000 cubic yards per month
- Construction/demolition
- Cutting, sawing, or sanding wood
- Grain drying/handling operations
- Heat treating furnaces/ovens
- Large welding operations (multiple stations with total capacity ~1000 lb electrode/hr; range 150-2800+ lb elec/hr)
- Rock crushing equipment
- Sand/aggregate drying and handling equipment
- Sand or other abrasive blasting equipment (if not vented inside year-round)

Processes that Generate VOCs

- Adhesive application
- Coating operations-including flow coat, roll coat, and brush or other hand application techniques (see spray paint)
- Cold cleaners, degreasers, other solvent parts cleaners
- Organic liquid storage tanks with greater than 40,000 gallons capacity combined
- Printing press (using over 200 gallons of ink per month, likely over exemption)
- Soil remediation equipment over a certain capacity
- Spray paint booth (anyone using more than 250 gallons per month is likely over the exemption)
- Styrene based plastics (expandable foam, fiberglass reinforced composites)
- VOC storage tanks with combined capacity greater than 10,000 gallons

Sources of HAPs or Other Concerns

- Asbestos removal and disposal
- Chromium electroplating operations
- Percholorethylene dry cleaning operations
- Styrene based plastics (expandable foam, fiberglass reinforced composites)

Equipment or Activities Usually Exempt from Permit (be aware that other air pollution requirements may still apply)

- Bulk gasoline plants that distribute gasoline or other petroleum products
- Crematories
- Gasoline dispensing facilities which dispense gasoline or other petroleum products
- HVAC equipment, except boilers to be used for plant and process heating as well
- Individual welding stations
- Janitorial cleaning materials/chemicals and equipment
- Paper sorting equipment
- Refrigeration units not used for air pollution control and not using an ammonia-based coolant
- Research and testing equipment for use in short term
- Restaurant grills/ovens
- Small natural gas space heaters
- Water chlorination facilities
- Water tower stripping and painting