

## **GENERAL PERMIT TO INSTALL PROGRAM**

### **BACKGROUND**

R 336.1201a (Rule 201a) of the Administrative Rules for Air Pollution Control allows the Michigan Department of Environmental Quality (MDEQ) to issue a general permit to install covering numerous similar stationary sources, processes, or process equipment, after public notice and opportunity for public participation. The use of general permits provides a streamlined permitting alternative to the normal permitting process for processes that meet the following criteria:

- a) The processes must produce the same or reasonably similar products.
- b) The processes must emit the same or similar air contaminants.
- c) The method for capturing and controlling the air contaminants must be the same or limited to a small number of specific alternatives.
- d) The processes must be subject to the same emission limitations, monitoring requirements, federal standards, or state rules.

For each proposed general permit to install, the MDEQ holds a 30-day public comment period, and a public hearing, if requested, prior to making the general permit final. The Chief of the Air Quality Division (AQD) will approve a general permit to install unless substantial comments are received during the comment period that can not be resolved.

A general permit to install must be consistent with the permit content requirements of Rule 205(1)(a). The AQD will maintain and make available to the public, upon request, a list of the persons that have been authorized to install and operate a stationary source, process, or process equipment pursuant to each general permit to install issued by the MDEQ.

Each general permit states that it shall not apply to a source, process, or process equipment that is included in an existing permit to install pursuant to Rule 201 and is further referenced in an outstanding consent order or consent judgment. In addition, the facility shall have no outstanding unresolved violations of any of the MDEQ Air Pollution Control rules, orders, or permits; or Federal air quality regulations.

### **APPLICATION FOR A GENERAL PERMIT**

If the owner/operator decides to install and operate a source, process, or process equipment under the terms of a general permit to install, then that person must apply to the MDEQ for coverage under the general permit. A person who applies for coverage under the general permit to install must certify that the equipment they will be installing meets the necessary criteria for applicability and that they will comply with the special conditions of the permit. These conditions may include emission limits; material limits; process/operational limits; equipment, testing, monitoring and recordkeeping requirements; and stack limits which are necessary to ensure that the equipment will operate in compliance with all applicable air pollution control rules. Each general permit also includes a special condition allowing replacement or modification of the equipment provided that the permittee updates the general permit; all applicability criteria continue to be met; and records of the date and description of the replacement or modification are kept.

Each general permit to install includes application forms which request the information necessary to determine qualification for, and ensure compliance with, the general permit to install. The owner/operator must submit the completed application forms to the AQD Permit Section. Upon receipt by the AQD, Permit Section staff will review the application for completeness. The general permit to install will be granted by the MDEQ to sources, processes, or process equipment that qualify within 30 days of receipt of a complete application. Additional public comment will not be necessary for each application since the public participation requirements will have been met by the public comment period and, if requested, public hearing on the proposed general permit. The

AQD will mail to the facility, a copy of the general permit to install, and a letter acknowledging that the AQD is aware that the facility owner/operator intends to install and operate the process or process equipment in accordance with the terms and conditions of the general permit.

The AQD may revise or update a general permit to install for various reasons, including making minor administrative changes (i.e., addresses, formatting, etc.), clarifying instructions or permit language, or correcting an underlying applicable requirement. These types of minor changes/updates will be made without a comment period. The Department will hold a comment period to receive comments on proposed changes that affect the applicability criteria or special conditions of the general permit before it is revised. The most recent version of the general permit is always available on the Internet and all changes to the permit are summarized in the general permit to install background document. If an owner/operator has applied for and been granted coverage under a general permit to install, compliance with the most recent published version is required.

**NOTE:** A general permit to install is not intended to allow circumvention of the federal Prevention of Significant Deterioration (PSD) regulations as identified in 40 CFR 52.21. Processes or process equipment that are subject to the PSD regulations are not intended to be covered by any general permit to install and must obtain a permit to install pursuant to R 336.1201 of the Administrative Rules for Air Pollution Control (Rule 201). A general permit may not be used for a process or equipment proposed for installation as part of a larger project. Improperly permitted installation and/or operation may constitute cause for civil and/or criminal enforcement proceedings and fines as provided for under Act 451, and other applicable state and federal statutes. In addition, affected units may also be subject to other state rules or federal regulations (e.g., Acid Rain provisions of Title IV or the Renewable Operating Permit Program). Use of a general permit does not obviate the necessity of complying with these regulations and obtaining any necessary permits.

Installation of equipment prior to issuance of a permit to install, including a general permit to install, is a violation of Rule 201. A person always has the option of applying for a case-by-case permit to install pursuant to Rule 201 if they are unable to comply with the conditions of the general permit to install.

### **SOURCE CATEGORIES**

The AQD has approved general permits to install for the following processes or equipment:

- Anhydrous ammonia storage and handling
- Propane or natural gas-fired boilers
- Natural gas-fired burnoff ovens
- Coating lines emitting up to 10 tons per year of VOCs
- Nonmetallic mineral crushing facilities
- Groundwater and soil remediation processes for petroleum products
- Diesel fuel-fired engine generators
- Ethylene oxide sterilizers

Each general permit includes background information for the process or equipment and describes the applicability criteria which must be met.

**Anhydrous ammonia storage and handling** - Anhydrous ammonia has a variety of industrial uses ranging from metallurgical processes to wastewater treatment to flue gas conditioning at electric power plants. In addition, numerous bulk storage tanks currently exist for purposes such as agricultural applications and fertilizer sales. To qualify for the general permit to install, anhydrous ammonia storage and handling processes must meet the following criteria:

- The general permit to install shall apply to a single anhydrous ammonia storage tank with a nominal tank storage capacity not to exceed 30,000 gallons and any associated handling processes, nurse tanks or applicator tanks.
- The process must comply with the Department of Consumer and Industry Services safety standards for anhydrous ammonia, "Part 78. Storage and Handling of Anhydrous Ammonia" (MIOSHA 1901.111).
- The process must be located a minimum of 50 feet from the nearest property line, 300 feet from existing places of residence or private or public assembly, 500 feet from a school, apartment building, or institutional occupancy, and not less than 1000 feet from a hospital or nursing home.
- Nurse and applicator tank storage shall be no less than 50 feet from the nearest property line, 150 feet from any existing places of residence or private or public assembly, 250 feet from a school, apartment building, or institutional occupancy, and no less than 1000 feet from a hospital or nursing home.
- The process must comply with all local zoning requirements and permits.
- An emergency response plan, to be followed in the event of an emergency, must be developed and approved by the local fire department or county emergency response agency before any operation of the process.

**Propane or natural gas-fired boilers with a maximum heat input of 100 MMBtu** - Boilers are used for a variety of applications, such as providing process steam, providing hot water or steam for space heating, or generating high-temperature, high-pressure steam for producing electricity. Portable units are used on a temporary basis during maintenance or repairs of permanent units. To qualify for the general permit to install, each propane or natural gas-fired boiler must meet the following criteria:

- The general permit to install shall apply to propane or natural-gas fired boilers used for electric generation, industrial or commercial use, each with a maximum rated heat input of 100 million Btu per hour. The boiler(s) may not burn or process slag, asbestos tailings, asbestos containing waste materials or medical waste materials.
- The general permit to install may be used for multiple propane or natural gas-fired boilers at a given stationary source. A separate Process Information form must be completed for each boiler. Each boiler must meet the criteria set forth in the general permit to install and must comply with all terms and conditions of the general permit.
- Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 0.05 pound of NO<sub>x</sub> per million Btu of heat input.
- A properly operated low-NO<sub>x</sub> burner must be used to meet the requirements of this general permit. A demonstration that the low-NO<sub>x</sub> burner can meet the emission limit must be submitted with the application. (i.e., manufacturer's guarantee, test data, etc.)
- The exhaust from each propane or natural gas-fired boiler must be located a minimum of 50 feet from the nearest property line and 150 feet from any residential or commercial establishment or place of public assembly.
- The exhaust gases from the propane or natural gas-fired boiler(s) shall be discharged unobstructed vertically upwards to the ambient air from stack(s) with an exit point not less than one and one half times the building height (from ground level to point of discharge).
- The total combined fuel use for all propane or natural gas-fired boilers covered by this general permit shall not exceed 1400 million standard cubic feet per 12-month rolling time period.

**Batch type natural gas-fired burnoff ovens** - Batch type burnoff ovens are used to remove cured paints, oil or grease from metal parts such as part hangers or engines, by thermal decomposition of the paints, oil or grease. To qualify for the general permit to install, a natural gas-fired burnoff oven must meet the following criteria:

- The general permit to install shall apply to a batch type natural gas-fired burnoff oven equipped with a secondary chamber or an afterburner. The secondary chamber or afterburner shall have a maximum rated heat input of 560,000 Btu per hour.
- The general permit to install may not be used for more than one burnoff oven at a stationary source and may not be used for a conveyORIZED oven that is continuously fed with parts.
- The burnoff oven shall be used only to remove cured paints, oil or grease from metal parts by thermal decomposition.
- The burnoff oven may not be used for the thermal destruction or the removal of rubber, plastic, uncured paints or any materials containing sulfur or halogens (chlorine, fluorine, bromine, etc.) such as plastisol, polyvinyl chloride (PVC) or Teflon. Other prohibited materials include transformer cores, which may be contaminated with PCB-containing dielectric fluid, any wire or parts coated with lead or rubber, and any waste materials such as paint sludge or waste powder coatings.
- Proper operation of the burnoff oven requires a minimum temperature of 1400°F and a minimum retention time of 0.5 seconds in the secondary chamber or afterburner.
- The burnoff oven must be equipped with an automatic temperature control system for the primary chamber and the secondary chamber or afterburner, and an interlock system that shuts down the primary chamber burner when the secondary chamber or afterburner is not operating properly.
- All exhaust gases from the burnoff oven shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit point not less than one and one half times the building height (from ground level to point of discharge).

**Metal and/or plastic coating line(s) emitting up to 10 tons per year of VOCs** - For this general permit to install a coating line means an operation, which is a single series in a coating process and which is comprised of one or more coating applicators and any associated flash-off areas, drying areas, and ovens wherein one or more surface coatings are applied and subsequently dried or cured. Surface coating may include any paint, lacquer, varnish, adhesive, or other coating material applied on a surface. Surfaces include any substrate except cans, coils, large appliances, metal furniture, magnet wire, fabrics, paper, vinyl, flat wood paneling, or graphic arts lines.

This general permit to install is not intended to be a synthetic minor permit for Hazardous Air Pollutants (HAPs). A coating line that is subject to section 112(g) of the federal clean air act is not eligible to use this general permit to install and must obtain a New Source Review permit to install pursuant to Rule 201. A coating line subject to section 112(g) is one that has the potential to emit 10 tons per year of any one HAP or 25 tons per year of all HAPs combined. In addition, a coating line subject to any New Source Performance Standard (NSPS) for surface coating is not eligible to use this general permit.

To qualify for the general permit to install, each coating line must meet the following criteria:

- The general permit to install shall apply to a coating line where one or more surface coatings are applied to any substrate except cans, coils, large appliances, metal furniture, magnet wire, fabrics, paper, vinyl, flat wood paneling, or graphic arts lines.
- One general permit to install may be used for multiple coating lines at a given stationary source. A separate Process Information form must be completed for each coating line.

- A properly operated thermal oxidizer or catalytic oxidizer may be used to meet the requirements of this general permit. Proper operation of a thermal or catalytic oxidizer requires an overall minimum of 76% reduction of VOC emissions to the atmosphere.
- All coating applicators shall be High Volume-Low Pressure (HVLP) spray or equivalent technology with equal or better transfer efficiency (e.g., electrostatic spray, dip, flowcoat, roller, dip-spin).
- For a coating line using spray applicators, the coating line must include dry filters or a water curtain to control particulates.
- The exhaust gases from the coating line shall be discharged unobstructed vertically upwards to the ambient air at exit points not less than one and one half times the building height (from ground level to point of discharge).
- The emissions of VOCs from each coating line **and** purge and clean-up operations associated with the line covered by this general permit shall not exceed 2000 pounds per month nor 10.0 tons per year. The 10 TPY limit is based on a 12-month rolling time period as determined at the end of each calendar month.
- For any source using the general permit, the combined actual emissions of VOCs from all coating lines **and** all associated purge and clean-up operations at the stationary source shall not exceed 30.0 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. This includes the combined emissions from any coating line covered by this or any other general permit, any permit to install issued pursuant to Rule 201, and any coating line exempt from the requirement to obtain a permit pursuant to Rule 287 and/or Rule 290.

**Nonmetallic mineral crushing facilities** – Nonmetallic mineral crushing facilities crush and process rock, stone, concrete, recycled asphalt, sand, gravel or soil for the construction and transportation industry. To qualify for the general permit to install, a nonmetallic mineral crushing facility must meet the following criteria:

- The general permit to install shall apply to nonmetallic mineral crushing facilities used to crush and process nonmetallic minerals including rock and stone, concrete, recycled asphalt, sand, gravel or soil. The facility may not crush or process slag, asbestos tailings or asbestos containing waste materials.
- The crusher(s) shall be located a minimum of 500 feet from any residential or commercial establishment or place of public assembly.
- At any given site, all nonmetallic mineral crushing facilities combined shall process no more than 2,000,000 tons per year unless a site specific permit covers the location.
- All equipment associated with the nonmetallic mineral crushing facility shall be labeled with company identification numbers as specified in the general permit application.
- A copy of this general permit and conditions shall be clearly posted in the operator's office or workstation.
- The nonmetallic mineral crushing facility shall meet all requirements of the fugitive dust plan specified in the Appendix of the special conditions of the general permit.
- The nonmetallic mineral crushing facility shall meet all applicable requirements of the Federal New Source Performance Standards, Subpart OOO, for nonmetallic mineral crushing facilities.
- Each crusher and screen shall be equipped with a water spray. A baghouse dust collector may alternatively be installed in lieu of water spray for any particular piece of equipment. Operation of the control equipment is required only when necessary to meet applicable emission limits.
- A nonmetallic mineral crushing facility is allowed to relocate to a new geographical site in Michigan if all the following criteria are met:

- a) The facility shall have no outstanding unresolved violations of any of the Michigan Department of Environmental Quality Air Pollution Control rules, orders, or permits; or Federal air quality regulations.
- b) A notice of intent to relocate (Relocation Notice Form); a copy of the original general permit forms; any Process Information forms for previous modifications; and a proposed site plan identifying the proposed new geographical site and the probable duration at the new site shall be provided to the appropriate district office and the Permit Section not less than 10 days prior to the scheduled relocation. All residential or commercial establishments and places of public assembly within 1,000 feet of the proposed facility site shall be clearly identified on the proposed site plan.
- c) The crusher(s) shall be located a minimum of 500 feet from any residential or commercial establishment or place of public assembly.
- d) A copy of this general permit and conditions shall be clearly posted in the operator's office or workstation.

**Diesel fuel-fired reciprocating engine generators with a maximum capacity of 5 MW** - Engine generators, including portable units, are used primarily for power generation including emergency back-up and peak power shaving.

A diesel fuel-fired engine generator that is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (NESHAP) is not eligible to use this general permit to install and must obtain a New Source Review permit to install pursuant to Rule 201. A diesel fuel-fired engine generator subject to the NESHAP is one with a nameplate capacity rating greater than 500 brake horsepower, which is located at a major source that emits or has the potential to emit 10 tons per year of any one HAP or 25 tons per year of all HAPs combined.

To qualify for the general permit to install, each engine generator must meet the following criteria:

- The general permit to install shall apply to diesel fuel-fired engine generators used for electric generation, industrial or commercial use, each with a maximum nameplate capacity of 5 MW.
- The general permit to install may be used for multiple engine generators at a given stationary source. A separate Process Information form must be completed for each engine generator.
- The engine generator(s) shall only burn diesel fuel which, as defined by ASTM D 396, has a sulfur content less than or equal to 0.5 percent by weight. If the permittee sells electricity to a utility power distribution system, the sulfur content of the diesel fuel used in the engine generator(s) shall not exceed 0.05 percent by weight based on an annual average.
- The exhaust gases from the engine generators must be discharged unobstructed vertically upwards to the ambient air.
- The total combined diesel fuel use for all engine generators covered by this general permit shall not exceed 136,000 gallons per 12-month rolling time period.
- The general permit may not be used for diesel fuel-fired engine generators proposed for installation as part of a larger project.
- The general permit may not be used for a diesel fuel-fired engine generator which is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63, Subpart ZZZZ.

**Groundwater or soil remediation processes** – Remediation processes covered by this general permit to install include air stripping (pumping groundwater to the surface and transferring contaminants to the air), soil vapor extraction (volatilizing contaminants out of soil with vacuum

pressure), and air sparging processes (injecting air into soil/groundwater to remove contaminants). Contaminants covered under this general permit include crude oil; crude oil fractions; refined petroleum fractions including gasoline, jet fuels, kerosene, heating oils, and diesel fuels and any oxygenates that have been blended with any refined petroleum fraction; and natural gas based-products such as liquid petroleum gas. The contaminants shall not include any halogenated compound or waste oils.

Several exemptions from the requirement to obtain a permit to install apply to remediation processes. A permit to install (including a general permit) is not required for the following:

- a) A vapor vacuum extraction soil remediation process where the vapor is treated in a control device and all of the vapor is injected into the soil such that there are no emissions to the atmosphere during normal operation. (R 336.1285(v))
- b) An air stripper controlled by an appropriately designed and operated carbon adsorption or incineration system that is used exclusively for the cleanup of gasoline, fuel oil, natural gas condensate, and crude oil spills. (R 336.1285(w))
- c) An air sparging system where sparged air is emitted back to the atmosphere only by natural diffusion through the contaminated medium and covering soil and other covering medium. (R 336.1285(kk))
- d) Any remediation process, if the emissions of non-carcinogenic volatile organic compounds are less than 1,000 pounds per month uncontrolled or 500 pounds per month controlled, and the emissions of carcinogenic volatile organic compounds with an initial risk screening level greater than 0.04 micrograms per cubic meter are less than 20 pounds per month uncontrolled or 10 pounds per month controlled. (R336.1290) NOTE: Pursuant to federal guidance, the Department considers gasoline vapors to be carcinogenic. Therefore, most remediations of soil/groundwater contaminated with gasoline do not qualify for this exemption.

To qualify for the general permit to install, all remediation processes must meet the following criteria:

- The general permit to install shall apply only to air stripping, soil vapor extraction, and air sparging processes remediating soil or groundwater contaminated with petroleum based products including crude oil; crude oil fractions; refined petroleum fractions including gasoline, jet fuels, kerosene, heating oils, and diesel fuels and any oxygenates that have been blended with any refined petroleum fraction; and natural gas based-products such as liquid petroleum gas. The contaminants shall not include any halogenated compound or waste oils.
- There may be more than one remediation process at a given site. Each remediation process must meet all of the criteria set forth in this general permit and must comply with all terms and conditions of this general permit.
- The total VOC or gasoline emissions from all remediation processes combined at a given site shall not exceed 10 tons per year based on a 12-month rolling time period as determined at the end of each calendar month.
- The total BTEX emissions from all remediation processes combined at a given site shall not exceed 1 ton per year based on a 12-month rolling time period as determined at the end of each calendar month.
- There shall be no benzene, toluene, ethylbenzene, xylene or gasoline emissions at the stationary source other than those covered by this general permit.
- All remediation processes combined at a given site, with total potential VOC or gasoline emissions of 10 tons per year or less and/or total potential BTEX emissions of 1 ton per year or less are not required to install emission controls under this general permit.

- All remediation processes combined at a given site, with total potential VOC or gasoline emissions greater than 10 tons per year and/or total potential BTEX emissions greater than 1 ton per year must install one or more of the following emission controls: a dual stage granular activated carbon unit, a thermal oxidizer (incinerator or afterburner), a catalytic oxidizer (incinerator), an internal combustion engine, or a biofilter in combination with one of the other listed controls.
- Emission controls shall be guaranteed by the manufacturer to reduce hydrocarbon emissions to the atmosphere by at least 95% for vapor phase carbon and 98% for thermal oxidation, catalytic oxidation or an internal combustion engine.
- The exhaust gases from the process must be discharged unobstructed vertically upwards to the ambient air at an exit point at least 1.5 times the building height (from ground level to point of discharge), but not less than 20 feet above ground level, with a minimum exit velocity of 30 feet per second.
- The general permit shall not apply to a remediation process that is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Site Remediation, 40 CFR Part 63, Subpart GGGGG.

**Ethylene oxide (EtO) sterilizers** - EtO sterilizers are commonly used at hospitals to sterilize and fumigate medical equipment. To qualify for the general permit to install, each EtO sterilizer must meet the following criteria:

- The general permit to install shall apply to EtO sterilizers with a capacity not to exceed 30 cubic feet per unit, and associated aeration equipment.
- The general permit to install may be used for multiple EtO sterilizers at a given stationary source. A separate Process Information form must be completed for each sterilizer.
- The sterilization and aeration processes must include an acid-water scrubber or catalytic oxidation unit that is guaranteed by the manufacturer to reduce EtO emissions to the atmosphere by at least 99.9%.
- The combined EtO usage rate for all sterilization processes at the stationary source shall not exceed 6.5 pounds per day, or 141.1 pounds per month.
- The exhaust gases from the process must be discharged unobstructed vertically upwards to the ambient air at an exit point not less than 25 feet above ground level. The discharge must be located a minimum of 25 feet from any window, air intake vent, or any location accessible by the general public.
- The process must use a closed loop recirculating-fluid vacuum pump, an air ejector system, or other method of drawing a vacuum and evacuating the sterilizer chamber that prevents any discharge of EtO to a wastewater stream.
- The sterilant gas must consist of either 100% EtO, or an EtO/inert gas mixture. Acceptable inert gases include 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), carbon dioxide, or a hydrochloro-fluorocarbon (HCFC) blend, which includes only toxic air contaminants (TAC) for which the initial threshold screening level (ITSL) as defined in R 336.1109(e) is equal to or greater than 5000 micrograms per cubic meter on a 24 hour average.