

TECHNICAL SUPPORT DOCUMENT

FOR

AIR EMISSION GENERAL PERMIT:
PART 70 LOW-EMITTING FACILITY GENERAL PERMIT
April 30, 2015

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1.0 INTRODUCTION

The Minnesota Pollution Control Agency (MPCA) strives to efficiently implement its air emission permitting program and to continuously improve the permitting process. One way to meet this goal is through the development of general permits for specific categories. This document presents the MPCA's overall approach for the efficient permitting of low-emitting facilities which have failed to obtain an air emission permit prior to beginning construction and operation of their facility. This means that facilities which would otherwise qualify for a Registration Permit may have:

- constructed a facility that is a major source under the New Source Review (NSR) program and/or
- constructed and operated a facility that is a major source of hazardous air pollutants.

If a facility has potential emissions that exceed major source thresholds for either program, they will likely be:

- subject to BACT-equivalent requirements
- subject to major source NESHAPs and
- unlikely to qualify for a Registration Permit

Target facilities for this general permit are existing unpermitted low-emitting facilities with primarily the following types of emission units:

- Combustion Sources, including eligible boilers, burn-off ovens, catalytic or thermal afterburners, furnaces, eligible internal combustion engines (generators), ovens, and space heaters;
- Material Usage Operations, including adhesive application, casting, cleaning/stripping (including acid cleaning, degreasers, general cleanup with solvents), dip tanks, injection molding, lamination, mixing, molding, resin and gel coating, screen printing, soldering, spraying and coating activities, and stenciling;
- Material Processing Operations which can be determined using the calculation methods in Appendix A, including abrasive blasting, cutting, fuel storage, grinding, sanding, and welding;
- Fugitive sources; and/or
- Insignificant Activities listed in Minn. R. 7007.1300, subps. 2 and 3, and/or conditionally insignificant activities listed in Minn. R. 7008 which include smaller emission units for combustion, material processing and usage operations, storage tanks, and fugitive sources.

This document presents the technical support information for the development of a general permit for these sources. This general permit is a Part 70 permit for facilities that limit actual emissions to less than the emission limits for the process operations listed in Table 1-1 below:

Table 1-1

Material Usage and Processing Operation, and Fuel Combustion Emission Limits*

Pollutant – defined below*	Emission Limit tons per year (tpy)
VOC – Volatile Organic Compounds from material usage and processing operations (i.e. spray coating)	≤ 25 tpy
CO – Carbon Dioxide from fuel combustion	≤ 25 tpy
NOx – Nitrogen Oxides from fuel combustion	≤ 25 tpy
PM – Total Particulate Matter from material usage operations (i.e. spray coating) and abrasive blasting)	≤ 25 tpy
PM10 from material usage and processing operations (i.e. spray coating and abrasive blasting)	≤ 25 tpy
PM2.5 from material usage and processing operations (i.e. spray coating and abrasive blasting)	≤ 25 tpy
Single HAP from material usage and processing operations (i.e. spray coating)	≤ 5 tpy
Total HAP from material usage and processing operations (i.e. spray coating)	≤ 12.5 tpy

*limits do not include emission units that qualify as eligible insignificant activities or fugitive sources

In order to support the general permit and application, the technical support information needs to meet the following general objectives:

- The information must describe how the sources eligible for this general permit are similar. The information should also describe the similar regulatory requirements for these sources (Minn. R. 7007.1100, subp. 1).
- The information must identify which permit application requirements of Minn. R. 7007.0100 - 7007.1850 do not apply to stationary sources qualifying for the general permit in order to support development of a simplified application (Minn. R. 7007.1100, subp. 5), and
- For Part 70 permits, the information must set forth the legal and factual basis of the permit conditions, including reference to the applicable statutory or regulatory provisions (Minn. R. 7007.0850, subp. 1).

The remainder of this technical support document includes: a summary of the permitting approach in Section 2; a discussion of the qualifications and requirements for this general permit in Section 3; a summary of the general permit contents in Section 4; a summary of the general permit application contents in Section 5; and a discussion of the procedures for limiting PTE in Section 6.

The legal and factual basis for the permit conditions is described in this document and in the permit. The permit contains the general conditions listed in Minn. R. 7007.0800, subp. 16.

2.0 PERMITTING APPROACH

This Section discusses the general concepts for individual versus general permits. It presents the overall permitting approach for low-emitting facilities that have constructed and/or operated prior to obtaining a permit for material usage and processing operations and fuel combustion sources, with or without pollution control equipment.

2.1 General Permits versus Individual Permits

Minn. R. ch. 7007 requires air emission sources to obtain permits from the MPCA. These rules provide the overall specifications for the MPCA's air emission permits program. The owner or operator of a facility submits a permit application to the MPCA. The MPCA reviews the applications and, when staff determines that the application is complete, staff prepares a draft permit for public notice. Public notice requirements provide for a 30-day public comment period and in some cases review by neighboring states or provinces. Concurrent with and following the 30-day public comment period, the permit is not issued until after the U.S. Environmental Protection Agency (EPA) is provided a 45-day period to review the operating portions of the permit. After the 45-day EPA review the permit may be issued.

Typically, permitting involves preparing a draft permit for each individual source based on source-specific considerations. The complete permitting process described above is then carried through for each individual permit. This approach is generally time-consuming for all parties involved.

As an alternative, Minn. R. 7007.1100 provides for the issuance of a "general permit" which covers numerous sources that are similar to each other and are subject to the same or substantially similar regulatory requirements. This approach provides for greater efficiency than the individual permit approach. The process of issuing a general permit includes:

- development of a simplified application based on requirements which would potentially be applicable to the types of sources for which the permit would be issued;
- development of a single permit for the source group which provides for compliance with applicable requirements by standard approaches identified in the permit;
- a one-time public notice and EPA review prior to issuance of the final general permit;
- issuance of the general permit to any qualifying individual source without repeating the public notice for each source; and
- availability of a list from the MPCA upon request which identifies the stationary sources for which a general permit application has been received.

The primary benefit of a general permit is the efficiency provided to the MPCA and to qualifying stationary sources through a simplified permitting process. At the same time, the opportunity for public participation is preserved in the public notice of the general permit. The MPCA will also make available to the public a list of sources from whom applications have been received.

General permits also provide for equitable treatment of sources through the receipt of uniform permit applications and uniform permits. However, when requesting the general permit, the stationary source is accepting the terms and conditions of the general permit and must comply with them. When submitting the general permit application, the stationary source may not request special conditions for operation of its stationary source. If special conditions are necessary for an individual source, that source must apply for an individual permit.

2.2 MPCA Overall Permitting Approach for Low-Emitting Facilities Consisting of Material Usage and Processing Operations, and Fuel Combustion Sources; With or Without Pollution Control Equipment

Facilities that have constructed and/or operated prior to obtaining a permit do not have a permit to limit their potential emissions. This means that facilities must consider their full potential to emit (PTE) when determining if they have:

- Constructed a facility that is a major source under the New Source Review (NSR) program. These facilities are subject to injunctive relief provisions which include applying Best Available Control Technology (BACT)-equivalent controls, emission limits, and/or operating limits.
- Constructed and operated a facility that is a major source for 40 CFR Section 63.2. These facilities may not accept limits to qualify as an area source for promulgated NESHAPs for which the compliance date has passed.

The MPCA has identified a need for a general permit that addresses these permitting issues for small businesses and low-emitting stationary sources that constructed and operated prior to receipt of a permit. Facilities with potential emissions that exceed major source thresholds for New Source Review (NSR) and/or Part 63 NESHAPs and who constructed and operated prior to receiving a permit typically no longer qualify for a Registration Permit or the Manufacturing General Permit. This determination is made on a case-by-case basis. While actual emissions from these stationary sources are low (<25 tpy for all criteria pollutants except CO₂e), their PTE often exceeds major source thresholds for NSR and NESHAPs for Source Categories (MACT Standards). A facility which constructs a major NSR source without a permit is required to prepare a BACT-Equivalent Determination which results in site-specific controls, emission limits and operating limits.

Further, facilities which have begun operation with a PTE for HAPs greater than 5 tpy for any single HAP, or greater than 12.5 tpy for total HAPs are no longer eligible for a Registration Permit. This general permit will ensure that the facilities which qualify for this permit are:

- subject to BACT-equivalent controls, emission limits and operating limits including Best Management Practices (BMPs) for coating and combustion sources,
- subject to the applicable area and major source MACT Standards,
- treated fairly and consistently, and
- afforded some economic relief from maintaining compliance as a major stationary source

This general permit category is allowed by the MPCA based on Minn. R. 7007.1100, subp. 1, which requires that the same or substantially similar requirements apply to the category of sources. This permit may be issued to stationary sources throughout the State of Minnesota.

This general permit will be issued for stationary sources that can meet the operating and emission limits established in this general permit when accounting for the effects of all pollution control equipment from all processes with pollution control equipment for all appropriate criteria pollutants. The permit allows operating flexibility by authorizing the installation, replacement and removal of equipment without significant regulatory burden to the permit holder, so long as the permit holder remains in compliance with the general permit.

Prevention of Significant Deterioration (PSD) requirements apply to stationary sources with a PTE of either 100 tpy (for facilities identified in 40 CFR Section 52.21(b)(1)(iii)) or 250 tpy or more of any criteria

pollutant, or 100,000 tpy CO₂e or more of GHGs (for major PSD sources). Because this general permit will be issued only to stationary sources willing to accept strict limits on their major emission sources of criteria pollutants to less than 25 tpy of each criteria pollutant as calculated in Appendix A of this permit, PSD requirements will not apply to stationary sources eligible for this general permit. The permit will limit HAPs to less than 12.5 tpy of total HAP and less than 5 tpy of any single HAP, after accounting for the effects of waste recovery/recycling and all pollution control equipment from all processes with pollution control equipment for all appropriate pollutants, as calculated in Appendix A of this permit. The limits and BMPs contained within this permit will inherently require and encourage facilities to use lower VOC- and HAP-containing coatings where feasible, reduce fuel consumption or hours of operation and encourage the use of add-on particulate control. The strict limits and BACT-equivalent requirements provide a disincentive to apply for this permit.

This general permit will contain all necessary requirements of a Part 70 permit.

3.0 QUALIFICATION REQUIREMENTS

To meet the requirements of Minn. R. 7007.1100, subps. 1 and 5, the following four general criteria must be met for this general permit:

- the permit must be for a group of emission sources or stationary sources of like kind or substantially similar in nature;
 - the same or substantially similar requirements of Minn. R. 7007.0500 CONTENT OF PERMIT APPLICATION and Minn. R. 7007.0800 PERMIT CONTENT need to apply to the emission sources or stationary sources covered by the permit;
 - the same or substantially similar applicable requirements of Minn. R. 7007.0100, subp. 7, apply to the emission sources or stationary sources; and
 - the approaches for meeting the requirements of the second criteria and methods for meeting the applicable requirements identified by the third criteria need to be applied consistently.
- Development of the general permit and simplified application also requires that a number of assumptions be made to identify applicable requirements and establish how compliance with the applicable requirements will be achieved. These assumptions become qualification requirements for the general permit and need to be compatible with the design and operation practices at a number of low-emitting facilities, with or without pollution control equipment, consisting mainly of:
- Combustion Sources, including eligible boilers, burn-off ovens, catalytic or thermal afterburners, furnaces, eligible internal combustion engines (generators), ovens, and space heaters;
 - Material Usage Operations, including adhesive application, casting, cleaning/stripping (including acid cleaning, degreasers, general cleanup with solvents), dip tanks, injection molding, lamination, mixing, molding, resin and gel coating, screen printing, soldering, spraying and coating activities, and stenciling;
 - Material Processing Operations which can be determined using the calculation methods in Appendix A, including abrasive blasting, cutting, fuel storage, grinding, sanding, and welding;
 - Fugitive sources; and/or
 - Insignificant Activities listed in Minn. R. 7007.1300, subp. 2 and 3, and/or conditionally insignificant activities listed in Minn. R. 7008 which include smaller emission units for

combustion, material processing and usage operations, storage tanks, and fugitive sources.

A number of qualifications were required to be established for the development of this general permit. These qualifications are presented as numerical steps in the Qualifications Review List supplied with the application package for this general permit (Form LE-00). The basis for the qualifications is presented in the remainder of this Section.

3.1 Qualifications Pertaining to Stationary Source Type, Processes, Materials, Emissions Units and Emission Control

3.1.1 Stationary Source Description

This general permit applies to low-emitting facilities consisting mainly of material usage and processing operations, combustion sources, fugitive sources and eligible insignificant activities; with or without pollution control equipment.

3.1.2 Process Operations and Emission Units

Process operations and emission units typically present at stationary sources covered by this general permit include:

- Combustion Sources, including eligible boilers, burn-off ovens, catalytic or thermal afterburners, furnaces, eligible internal combustion engines (generators), ovens, and space heaters;
- Material Usage Operations, including adhesive application, casting, cleaning/stripping (including acid cleaning, degreasers, general cleanup with solvents), dip tanks, injection molding, lamination, mixing, molding, resin and gel coating, screen printing, soldering, spraying and coating activities, and stenciling;
- Material Processing Operations which can be determined using the calculation methods in Appendix A, including abrasive blasting, cutting, fuel storage, grinding, sanding, and welding;
- Fugitive sources; and/or
- Insignificant Activities listed in Minn. R. 7007.1300, subp. 2 and 3, and/or conditionally insignificant activities listed in Minn. R. 7008 which include smaller emission units for combustion, material processing and usage operations, storage tanks, and fugitive sources.

If a stationary source has process operations or emission units that are not similar to those listed above and that are not fugitive sources or eligible insignificant activities (listed in Minn. R. 7007.1300, subps. 2 and 3 or conditionally insignificant activities listed in Minn. R. 7008), the stationary source does not qualify for the general permit. An example of a similar source may include alternative methods of processing wood or other materials (i.e. sawing, drilling, etc.), as long as the facility provides a documented emission factor for the process in their permit application and/or compliance management plan. The facility must be able to use the calculation methods laid out in Appendix A of the permit for eligible material usage and processing operations. The insignificant activities listed in Minn. R. 7007.1300, subps. 2 and 3, and in Minn. R. 7008.4100 and 7008.4110, are required to be listed in the permit application and calculation of emissions from these activities shall be provided upon request in the application for this general permit. Insignificant activities listed in Minn. R. 7007.1300, subp. 4 are

not allowed to be characterized as insignificant activities in this general permit. It is possible that certain activities that have low actual emissions could also have potential emissions which exceed major source thresholds for New Source Review and subject to Injunctive Relief.

Part 60 New Source Performance Standards (NSPS). Any stationary source with an emission unit(s) subject to any NSPS in 40 CFR pt. 60 other than those listed below **does not qualify for this general permit**:

- volatile organic liquid (including petroleum liquid) storage vessels (subpart Kb)
- surface coating of metal furniture (subpart EE)
- stationary compression ignition internal combustion engines (subpart IIII)
- stationary spark ignition internal combustion engines (subpart JJJJ)

Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP). Any stationary source with an emission unit(s) subject to a NESHAP in 40 CFR pt. 63 other than those listed below **does not qualify for this general permit**:

- halogenated solvent cleaning machines (subpart T);
- wood furniture manufacturing operations (JJ)
- miscellaneous metal parts and products for surface coating operations (subpart MMMM);
- surface coating of large appliances (subpart NNNN)
- surface coating of plastic parts and products (subpart PPPP);
- surface coating of wood building products (QQQQ)
- surface coating of metal furniture (RRRR)
- reinforced plastic composites production (subpart WWWW);
- stationary reciprocating internal combustion engines (subpart ZZZZ); and
- industrial/commercial/institutional boilers and process heaters (subpart DDDDD)
- paint stripping and misc. surface coating operations (HHHHHH)

Part 63 Case-by-case Maximum Achievable Control Technology (MACT). A stationary source that is subject to a case-by-case MACT determination under Section 112(g) of the Clean Air Act **does not qualify for this general permit**.

Part 61 NESHAP. A stationary source that is subject to a NESHAP in 40 CFR pt. 61 **does not qualify for this general permit**.

3.1.3 Materials Processed

Lead-containing coating materials < 0.50% by weight. Stationary sources may use painting or coating materials that contain less than 0.50% by weight lead. Most auto body paint contains heavy metals, such as lead, chromium and barium. Auto paints may also contain lead in the form of lead driers (at levels up to 0.5% by weight). They are used on trucks and commercials, and in anti-corrosive pigments in some primers used on new cars. Many of the paints sold in aerosol cans as touch-up paints contain lead. These spray packs are used by car owners to camouflage small areas of damage.

The restrictive emission limits imposed by this permit (≤ 25 tpy) for VOC and PM combined with the <0.50% by weight limit restrict lead emissions to less than 0.15 tpy. For example:

- *Allowable gallons per year at 11 lb/gal: $11 \text{ lb/gal} * x \text{ gallons/yr} * \text{ton}/2000 \text{ lb} = 25 \text{ tpy}$ results in 4545 gallons per year*
- *Lead emissions = $4545 \text{ gallons/yr} * 11 \text{ lb/gal} * \text{ton}/2000 \text{ lb} * 0.005 = 0.12 \text{ tpy}$*

3.1.4 Emission Control

This permit allows for particulate emission control material usage and processing operations including: booths for coating, abrasive blasting, sanding, and non fiberglass spraying/coating operations. To get credit for emission reductions, the control device must be listed under Minn. R. 7011.0070 and the Permittee must comply with the operating condition requirements of Minn. R. 7011.0060 - 7011.0080.

This general permit requires fugitive particulate emission control by the application of water on exposed surfaces.

The stationary source is allowed to consider the effects of all VOC pollution control equipment when calculating emissions. The general permit emphasizes the necessity of capture efficiency and destruction efficiency determination for surface coating operations. The Permittee must comply with the control equipment rule operating condition requirements of Minn. R. 7011.0060 - 7011.0080.

3.2 Qualifications Pertaining to Minn. R. 7007.0500 and 7007.0800

3.2.1 Restriction on Potential to Emit

As described in Section 2.2, this general permit is for stationary sources with PTE limited to less than 100 tpy for all criteria pollutants. The general permit further limits this general permit to facilities which are able to limit their actual emissions to ≤ 25 tpy for NO_x and CO emissions from fuel combustion operations and ≤ 25 tpy for VOC, PM, PM₁₀, and PM_{2.5} emissions from material usage and processing operations. Given such strict emission limits, the stationary source will be able to make design and operational changes without being subject to PSD requirements. However, Part 70 permit and permit application requirements need to be fulfilled in this general permit.

Fugitive emissions by definition cannot be collected and are released to the atmosphere at the point of generation. Fugitive emissions at sources eligible for this general permit may be generated by unpaved roads, blasting outdoors, painting outdoors and other related miscellaneous activities outdoors. VOC emissions from cleaning solvents and adhesives are not considered fugitive emissions.

The approach developed to restrict the PTE for the operations at stationary sources covered by this general permit are presented in Section 6.0. This approach involves the following concepts:

- inclusion of BACT-equivalent emission and operating limits including Best Management Practices (BMPs) for coating and combustion sources and
- restricting the type of fuel consumed limits the PTE of criteria pollutants, especially SO₂

The caps on the PTE for NO_x and CO emissions are based on 12-month rolling sum emissions limits. Compliance also limits the Permittee to certain fuel types (natural gas, distillate oil, biodiesel, liquefied petroleum gas and gasoline) to limit the NO_x and CO PTE from all fuel combustion sources which do not qualify as insignificant activities. Monitoring and recordkeeping provisions to track compliance with these permit conditions are also included. Combustion of the allowable fuel types emits SO₂ at a significantly lower rate than NO_x or CO, so Permittees complying with the NO_x and CO limits will by default also keep SO₂ emissions well below the PSD major source threshold. For this reason, the permit does not need to include a Title I limit on SO₂ to avoid PSD applicability.

The 25 tpy emission limit on the PTE for PM/PM_{2.5}/PM₁₀ from material usage and processing operations is based on a 12-month rolling sum emissions limit. Monitoring and recordkeeping provisions to track compliance with these permit conditions are also included. PM/PM_{2.5}/PM₁₀ emissions from fuel combustion are not included in the calculation as they are inherently restricted by the NO_x emission limits to < 2.5 tpy (PM emission factors are less than 10% of NO_x emission factors for allowable fuel-burning units.)

The emission limit on the PTE for VOC from material usage and processing sources is based on a 12-month rolling sum emissions limit. Monitoring and recordkeeping provisions to track compliance with these permit conditions are also included. VOC emissions from fuel combustion are not included in the calculation as they are inherently restricted by the NO_x emission limits to < 2.5 tpy. (VOC emission factors are less than 10% of NO_x emission factors for allowable fuel-burning units.)

There is no individual emission limit on PTE for Lead because permit restrictions on lead-containing coating materials mean that lead emissions for facilities with this permit will be negligible (< 0.5 tpy). Compliance requires the Permittee to restrict painting and coating materials that contain < 0.50% lead, and to use fuel types with negligible lead contents.

The cap on PTE for HAP from material usage and processing operations is based on a 12-month rolling sum emissions limit. Monitoring and recordkeeping provisions to track compliance with these permit conditions are also included.

There is no emission limit on PTE for GHG from these sources is based on a 12-month rolling sum emissions limit. GHG emissions from fuel combustion are not included in the calculation as they are inherently restricted by the NO_x emission limits to < 100,000 tpy. For example:

- *Allowable NO_x emissions per year = 25 tons: 60 MMBtu/hr /1020 Btu/MMft³ x 100 lb NO_x/hr x 8760/2000*
- *PTE of GHG based on allowable NO_x of 25 tpy: 60 MMBtu/hr /1020 Btu/MMft³ x 120,000 lb/hr x 8760/2000 = 30918 tpy*
- *PTE of GHG based on allowable NO_x using low-NO_x burners (reduces NO_x EF by 50%) = 61835 tpy*

3.2.2 BACT-Equivalent Determination

This general permit was developed for facilities that failed to obtain a permit prior to construction yet whose actual emissions never exceeded the major source thresholds of New Source Review (NSR). The sources are required to achieve BACT-equivalent emission reductions. The BACT-equivalent determination focuses on those pollutants, processes and emission units at the target facilities that have historically triggered injunctive relief:

- VOC emissions from coating and VOC-containing material usage operations
- PM/PM10/PM2.5 emissions from material usage and processing operations
- NOx/CO emissions from combustion sources

The injunctive relief process considers air pollution control options for each pollutant associated with each emission unit. Sources consulted for air pollution control technology include:

- US EPA's RACT/BACT/LAER Clearinghouse (RBLC)
- US EPA's New Source Review (NSR) bulletin board
- US EPA/State Air Quality Permits
- Air pollution control technology vendors
- Manufacturer's recommendations
- BACT-equivalent analyses conducted for similar facilities

The determination does not authorize emissions that will exceed the rates allowed by any applicable standard established pursuant to sections 111 (NSPS) or 112 (NESHAP) of the CAA.

Table 3-1 on the next page presents a summary of the BACT-equivalent emission limits, management practices and control technologies.

Table 3-1

Source Type	Pollutant	BACT-equivalent Requirements	Details
Coating/ Painting Operations	VOC	Restricted VOC emission limit ≤ 25 tpy for material usage and processing operations at the facility that don't qualify as eligible insignificant activities or fugitive sources.	Relies on the use of high solid content coatings, use of water-based or low-VOC coatings, limits on hours of operation, reductions in material usage, and credit for recycling or recovery of materials to meet emission limits.
		Capture application equipment cleanup solvents and limit solvent usage. Employ good housekeeping for spills.	Use high-pressure washer to clean coating lines and containers when practical. Paint spray gun cleaning must be done so that an atomized mist or spray of the cleaning solvent is not created outside a container that collects used gun cleaning solvent.
	VOC, PM, PM10, PM2.5	Store coatings, solvents, and waste materials in closed containers	Allow credit for waste recovery and recycling.
	PM, PM10, PM2.5	Impose restrictive PM emission limits for material usage and processing operations at the facility that don't qualify as eligible insignificant activities or fugitive sources: PM emission limit ≤ 25 tpy PM10 emission limit ≤ 25 tpy PM2.5 emission limit ≤ 25 tpy	The facility must limit hours of operation, reduce material usage, enclose PM sources, install particulate controls, and/or track recycling or recovery of materials to meet these emission limits.
		Use high transfer efficiency application equipment. Minimum transfer efficiency of 45%.	Airless, air assisted airless, electrostatic, high volume low-pressure (HVLV) spray equipment, brushes, rollers, dipping, flow coating and equivalent are allowed. Air atomization guns are not allowed. This does not apply to eligible insignificant activities.

Source Type	Pollutant	BACT-equivalent Requirements	Details
Abrasive Blasting	PM, PM10, PM2.5	Enclosed blasting operations should be equipped with a fabric filter such as a baghouse or cartridge filter system.	Air to cloth ratio should be based on manufacturer's recommendations for the solids being controlled and the fabric filter cleaning method used.
		Use low dusting abrasives where available and practical for uncontrolled abrasive blasting operations	Coal slag, copper slag, nickel slag, steel grit, steel shot or other media with a free silica content of less than 1.0%.
		Store new abrasive blast material in bags, sacks or bulk storage in enclosed buildings, hoppers or silos. Silos should be equipped with a fabric filter such as a baghouse or cartridge filter system.	
		Store waste materials in closed containers or in covered piles prior to disposal off site.	
		Employ good housekeeping for spills.	
Solvent Usage	VOC	Impose restrictive VOC emission limit ≤ 25 tpy for material usage and processing operations at the facility.	Encourages the use of low vapor pressure solvents and aqueous solutions, encourages reductions in the amount of solvent used, recovered and recycled.
		Implement a soiled wipe management system.	A soiled wipe management system should consist of placing soiled wipes in resealable bags or the placement of the soiled wipes in closed containers that are located near the process equipment or workstations.
		Employ good housekeeping for spills.	
		Store fresh and waste materials in closed containers until recycled or removed from the site.	

Source Type	Pollutant	BACT-equivalent Requirements	Details
Internal Combustion Engines (ICE)	CO, NOx (also controls PM, PM10, PM2.5)	Good Combustion Practices (GCP)	<p>Use of fuels limited to natural gas, propane, distillate fuel oil and biodiesel.</p> <p>GCP are preventative measures that minimize the release of pollutants into the environment. GCP may include the proper design and maintenance of equipment, good housekeeping, good operating practices, and ignition timing retard. Proper maintenance includes 1) following manufacturer recommendations and 2) applicable industry best practices, and 3) selected 40 CFR pt. 63, Subpart ZZZZ requirements for maintenance schedules, filter replacement, air flow and quality monitoring, periodic testing and analysis, and fuel scrubbing and testing, as applicable, among other work practices, to optimize operation of the equipment</p>
	SO2	Ultra-low sulfur diesel and GCP	<p>15 ppm fuel sulfur content for No. 2 fuel oil and diesel fuel. Minimizing the percent sulfur in the combustion fuel directly impacts SO₂ emission. Ultra-low sulfur fuel oil is fuel oil with less than or equal to 15 ppm sulfur.</p>

Source Type	Pollutant	BACT-equivalent Requirements	Details
Emergency Generators		<p>Best Management Practices for Emergency Generators</p> <ul style="list-style-type: none"> • The Permittee may not install a rain cap on any emergency engine stacks • Test runs for each engine must be as short as allowed by insurance and building code considerations. • Testing for an emergency engine shall not occur while another emergency engine is being tested. • No testing shall be conducted on a day that the Air Quality Index (AQI) or the forecasted AQI exceeds 90 unless the test cannot be deferred. 	<p>To minimize impacts on ambient air quality. The AQI and the forecasted AQI can be found at http://www.pca.state.mn.us/index.php/air/air-quality-and-pollutants/general-air-quality/current-air-quality-index.html</p> <p>For testing on a day with the AQI above 90, document the reason it was not possible to defer the test and any actions that were taken to limit emissions during the test with the testing records.</p>
Boilers	CO, NOx (also controls PM, PM10, PM2.5)	GCP	<p>GCP includes the proper design and maintenance of equipment, good housekeeping and good operating practices. Proper maintenance includes following 1) manufacturer recommendations and 2) applicable industry best practices for maintenance schedules, filter replacement, air flow and quality monitoring, periodic testing and analysis, and fuel scrubbing and testing, as applicable, among other work practices, to optimize operation of the equipment</p>
	SO2	Ultra-low sulfur diesel and GCP	<p>15 ppm fuel sulfur content for No. 2 fuel oil and diesel fuel. Minimizing the percent sulfur in the combustion fuel directly impacts SO₂ emission. Ultra-low sulfur fuel oil is fuel oil with less than or equal to 15 ppm sulfur.</p>

3.2.3 Compliance with Applicable Requirements

Minn. R. 7007.0500, subp. 2, requires that permit applications include a compliance plan, including a schedule of compliance when applicable requirements are not met. This general permit specifies the compliance plan. To qualify for this general permit, stationary sources must be in compliance with all applicable requirements. The exception is that if the only reason the stationary source is not in compliance is because it does not have a permit and the issuance of a general permit will bring it into compliance.

In addition, stationary sources subject to NSPS that have not conducted the notification, performance testing and reporting requirements required by 40 CFR pt. 60, subps. Kb, EE, Kk, IIII and JJJJ may be able to receive a general permit if they can commit to the compliance schedule in the general permit for submitting the notifications and completing the testing. In addition, stationary sources subject to NESHAP that have not submitted their initial notification requirement required by 40 CFR pt. 63, subps. T, JJ, MMMM, NNNN, PPPP, QQQQ, RRRR, WWWW, ZZZZ, DDDDD, and HHHHHH, may be able to receive a general permit if the owner or operator can commit to the compliance schedule in the permit for submitting the notification. The applicable requirements to be considered are identified in the permit.

3.2.4 Operating Flexibility

This general permit includes a number of conditions that allow sources to have operating flexibility. These conditions must be met by the stationary source to qualify for this general permit. The conditions include:

- complying with BACT-equivalent limits and operating conditions;
- allowing only certain types of processing equipment and fuel combustion equipment at the stationary source;
- requiring all equipment to be labeled with a serial number or other identification number;
- requiring records to be maintained on site to identify the actual operating configuration of the stationary source;
- requiring records of calculations for the operating configuration of the stationary source showing that the actual emissions do not exceed allowable emission limits.
- requiring all NSPS requirements to be met for new equipment, if applicable.
- requiring NSPS testing notification for new equipment that have not had NSPS testing or certification for new equipment that have had NSPS testing and passed,
- requiring all NESHAPS requirements to be met for new and existing equipment,

Once a company has a general permit, the Permittee may make modifications at the site as long as all permit conditions and limitations are met. If the stationary source will no longer be able to meet the general permit conditions and limitations after a proposed modification, the Permittee must apply for and receive an individual permit prior to the modification taking place.

3.3 Specific Requirements to be Met Based on Applicable Requirements

3.3.1 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

The CAA amendments of 1990 established a program to regulate any stationary source or group of stationary sources, that emits or has the potential to emit considering controls, ten tons per year or more of any single HAP or 25 tons per year or more of any combination of HAPs. The stationary sources eligible for this permit may have exceeded these thresholds, and therefore may be subject to these requirements.

The standards for maximum available control technology (MACT) are commonly known as NESHAP for source categories (40 CFR pt. 63). MACT standards require affected sources to meet specific emissions limits that are based on emissions levels already achieved by the best controlled similar sources. The identified source categories that affect this general permit are:

- Halogenated solvent cleaning machines (T)
- Surface coating of metal furniture (JJ)
- Process surface coating for miscellaneous metals parts and products (MMMM)
- Surface coating of large appliances (NNNN)
- Surface coating of plastic parts and products (PPPP)
- Surface coating of wood building products (QQQQ)
- Surface coating of metal furniture (RRRR)
- Reinforced plastic composites production (WWWW)
- Reciprocating internal combustion engines (ZZZZ)
- Industrial/commercial/institutional boilers and process heaters at major HAP sources (DDDD)
- Paint stripping and misc. surface coating operations (HHHHH)
- Industrial/commercial/institutional boilers and process heaters at area HAP sources (JJJJJ)

The requirements for these NESHAPs are incorporated in this general permit.

Case-by-case MACT Determination. On December 27, 1996, the CAA Section 112(g) rule was finalized. If a major HAP source undergoes a modification AND a modification of a process production unit (as defined in the 112(g) rule, 40 CFR 63.40 through 63.44) which by itself has a potential to emit of 10 or 25 tons per year and is not subject to a promulgated standard under 40 CFR pt. 63, the stationary source must apply for a permit including a case-by-case MACT determination. In this case this general permit cannot be used; instead, the stationary source would have to apply for an individual Part 70 permit.

40 CFR pt. 61 NESHAPs. Other NESHAPs requirements are provided in 40 CFR pt. 61 and in Minn. R. 7011.9900 through 7011.9990. Stationary sources with processes and equipment subject to these requirements will not be eligible for this general permit. Therefore, these standards are not contained in this general permit.

Prevention of Accidental Release Program. The prevention of accidental release program requirements are provided in 40 CFR pt. 68 and Section 112(r) of the Clean Air Act. The EPA promulgated the list of regulated substances and threshold quantities in the Federal Register on January 31, 1994, and the proposed risk management plan regulation on October 20, 1993. Cleaning, painting/coating, cutting, grinding, blasting, fuel combustion, and general fiberglass stationary sources; with or without pollution control equipment may produce, process, handle, store, or use the listed substances in the quantities listed; therefore, these requirements may apply and if these rules do apply, the stationary source must register and submit a risk management plan according to the rules after promulgation of the final rule.

3.3.2 New Source Review (NSR)

NSR requirements are in two programs: the nonattainment area review program (NAAR) and the PSD program. In this general permit, stationary sources in nonattainment areas will be restricted to under 100 tpy for all criteria pollutants except ozone. The 100 tpy restriction for ozone (VOC) does not apply because there are no ozone nonattainment areas in Minnesota. Therefore, the NAAR requirements do not apply because there are currently no nonattainment areas in Minnesota.

In this general permit, stationary sources will be restricted to the limits identified in Table 3-2 for the listed pollutants.

Table 3-2

Pollutant – defined below*	Emission Limit tons per year (tpy)
VOC – Volatile Organic Compounds from material usage and processing operations (i.e. spray coating)	≤ 25 tpy
CO – Carbon Dioxide from fuel combustion	≤ 25 tpy
NOx – Nitrogen Oxides from fuel combustion	≤ 25 tpy
PM – Total Particulate Matter from material usage and processing operations (i.e. spray coating, abrasive blasting)	≤ 25 tpy
PM10 from material usage operations (i.e. spray coating, abrasive blasting)	≤ 25 tpy
PM2.5 from material usage operations (i.e. spray coating, abrasive blasting)	≤ 25 tpy
SO2 from fuel combustion (meet limit by using compliant fuels and ultra-low-sulfur diesel)	PTE ≤ 25 tpy based on fuel-sulfur limits of 15 ppm
GHG PTE from fuel combustion (met by achieving NOx limit)	PTE ≤ 100,000 tpy based on NOx limit
Single HAP from material usage and processing operations (i.e. spray coating)	≤ 5 tpy
Total HAP from material usage and processing operations (i.e. spray coating)	≤ 12.5 tpy

NSR requirements of the PSD program apply to any stationary sources which have the PTE more than 250 tpy of any regulated pollutant as provided in 40 CFR pts. 51 and 52, or a PTE more than 100 tpy of any regulated pollutant for the sources defined in 40 CFR § 52.21(b)(1)(iii). Restrictions will be placed in the general permit as federally enforceable limitations on VOC, CO, NOx, PM, PM10, PM2.5 emissions and fuel-sulfur limits for SO2 emissions such that the stationary sources eligible for this general permit will emit well below 100 tpy for all criteria pollutants (closer to 25 tpy); furthermore, the permit restrictions on fuel types and NOx emissions limit the PTE of GHG emissions to less than 100,000 tpy of CO₂-e. Therefore, this permit does not contain PSD major source requirements because the stationary sources eligible for this general permit cannot be a major stationary source subject to PSD requirements, and GHG would therefore not be a regulated pollutant under PSD.

Stationary sources constructed after August 7, 1980, that have a PTE more than 100 tpy/250 tpy may be subject to PSD review. If potential emissions of any pollutant have exceeded 100 tpy/250 tpy and actual emissions of each pollutant have not exceeded 100 tpy/250 tpy for a stationary source constructed after August 7, 1980, the stationary source is **still** eligible for this general permit. Facilities eligible for this general permit will be required to comply with BACT-equivalent requirements in this general permit (BACT is Best Available Control Technology).

3.3.3 Ambient Air Quality Standards

National Ambient Air Quality Standards (NAAQS) and increment and visibility requirements are provided in the Clean Air Act, Section 109 and 160-169 (B). Minnesota Ambient Air Quality Standards are provided in Minn. R. 7009.0010 - 7009.0080. Minnesota standards do not allow anyone to emit any pollutants in such a manner that ambient levels of the pollutant are higher than the maximum allowed level.

3.3.4 State and Federal Standards of Performance

State standards of performance and federal New Source Performance Standards (NSPS) requirements apply to certain new and existing sources as provided in 40 CFR pt. 60 and Minn. R. 7011.0010 - 7011.3520. Standards that apply to cleaning, painting/coating, cutting, grinding, sanding, blasting, fuel combustion operations, and general fiberglass stationary sources; with or without pollution control equipment are listed in Table 3-3.

Table 3-3

Standards of Performance	40 CFR pt. 60	Minn. R.
Emission Standards for Visible Air Contaminants		7011.0100 - 7011.0120
Control of Fugitive Particulate Matter		7011.0150
Indirect Heating Fuel- Burning Equipment		7011.0500 - 7011.0550
Direct Heating Fuel-Burning Equipment		7011.0600 - 7011.0620
Industrial Process Equipment		7011.0700 - 7011.0735
Liquid Petroleum and Volatile Organic Liquid (VOL) Storage Vessels	subp. Kb	7011.1520
Surface Coating of Metal Furniture	Subp. EE	7011.2550
Stationary Internal Combustion Engines		7011.2300
Compression Ignition Internal Combustion Engines	subp. IIII	7011.2305
Stationary Spark Ignition Internal Combustion Engines	subp. JJJJ	7011.2310
Air Pollution Control Equipment		7011.0060 - 7011.0800

The standards are summarized below:

Emission Standards for Visible Air Contaminants - The requirements set forth in Minn. R. 7011.0100 - 7011.0120 include an opacity limit that allows no greater than 20 percent, except that a maximum opacity of 33 percent may occur for one six-minute period in any 60-minute period for existing stationary sources constructed before 1969, and for stationary sources constructed after 1969, an opacity limit that allows opacity at no greater than 20 percent. If performance tests are required, Method 9 for visual determination of opacity must be used.

Control of Fugitive Particulate Matter - The requirements set forth in Minn. R. 7011.0150 include minimizing airborne particulate emissions such that avoidable amounts of PM are not emitted from handling, use, transport, or storage of any material and that all reasonable control is applied.

Indirect Heating Fuel-Burning Equipment - The requirements set forth in Minn. R. 7011.0500 - 7011.0550 include PM and sulfur dioxide emission limits based on location, rated heat input of all direct and indirect heating equipment at the stationary source, and the type of fuel used for new and existing equipment.

These requirements for indirect heating fuel-burning equipment also include an opacity limit that allows opacity no greater than 20 percent, except for one six-minute period per hour of not more than 60 percent opacity or whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity for existing Stationary Sources. For Stationary Sources with new equipment of greater than 250 million Btu/hr rated heat input, an opacity limit that allows opacity no greater than 20 percent, except for one six-minute period per hour of not more than 27 percent opacity or whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 27 percent. For Stationary sources with existing equipment of 250 million Btu/hr or less rated heat input, an opacity limit that allows opacity no greater than 20 percent, except whenever any one-hour period contains two or more six-minute periods during which the average opacity exceeds 20 percent or whenever any one-hour period contains one or more six-minute periods during which the average opacity exceeds 60 percent.

Direct Heating Fuel-Burning Equipment - The requirements set forth in Minn. R. 7011.0600 - 7011.0620 include particulate emissions limitations such that the gases discharged to the atmosphere may not contain PM in excess of the limits allowed by the Industrial Process Equipment Standard of Performance (Minn. R. 7011.0700 - 7011.0735) and allows opacity no greater than 20 percent, except that a maximum opacity of 60 percent may occur for six minutes in any 60-minute period.

These state requirements for direct heating fuel-burning equipment also include a sulfur dioxide emission limit for stationary sources within the Minneapolis-St. Paul Air Quality Control Region, such that the gases discharged to the atmosphere do not contain sulfur dioxide in excess of 1.6 pounds per million Btu heat input if a liquid fuel is burned if the total rated heat input of all indirect and direct heating equipment of the owner or operator at that particular location exceeds 250 million Btu/hr. The emission limit is two pounds per million Btu heat input if a liquid fuel is burned if the total rated heat input of all indirect and direct heating equipment of the owner or operator at that particular location is equal to or less than 250 million Btu/hr.

Industrial Processing Equipment - The requirements set forth in Minn. R. 7011.0700 - 7011.0735 include separate standards for both industrial equipment put in operation before July 9, 1969, (pre-1969 requirements) and industrial equipment put in operation after 1969 (post-1969 requirements), for which a specific Minnesota standard of performance does not apply. The standard for PM, which is the same for equipment manufactured before and after 1969, is a pound per hour (lb/hr) limit based on the process weight rate. After reviewing the potential emission calculations (Section 6 of this document), operations at stationary sources covered by this general permit are not expected to exceed these standards.

The post-1969 standard includes an opacity limit of 20 percent. The pre-1969 standard includes an opacity limit of 20 percent, but allows a maximum opacity of 60 percent for six minutes in a 60-minute period. If performance tests are required, Method 9 for visual determination of opacity should be used.

Liquid Petroleum and VOL Organic Liquid Storage Vessels - The requirements set forth in Minn. R. 7011.1520 and 40 CFR pt. 60, subp. Kb, apply to VOL organic liquid storage vessels constructed after July 23, 1984, with a capacity less than to 151 cubic meters storing a liquid with a maximum true vapor pressure less than 15.0 kilopascal. The requirements include tank design specifications, inspections, measurements, reporting and record keeping, and monitoring of operations.

Surface Coating of Metal Furniture - The requirements in Minn. R. 7011.2550 and 40 CFR pt. 60, subp. EE, apply to each metal furniture surface coating operation for which construction, modification, or reconstruction commenced after November 28, 1980. The standard consists of a limit on VOC emissions to less than or equal to 0.90 kilograms of VOC per liter of coating solids applied. To demonstrate compliance with the limit a monthly 'performance test' is required. The performance test comprises of a series of calculations to determine the volume-weighted average of VOCs consumed per unit volume of coating solids applied based on material usage records for the month. The VOCs consumed is then assumed to be equal to the VOC emissions to the atmosphere, which can be compared to the limit to determine compliance.

Stationary Internal Combustion Engines - The requirements in Minn. R. 7011.2300 include an opacity limit such that engines are allowed a maximum opacity of 20 percent once operating temperatures are reached. The standard also includes a limit of 0.50 pounds SO₂ emissions per million Btu actual heat input. The actual heat input and rated heat input of the internal combustion engine should be determined using Minn. R. 7011.0500 - 7011.0550.

Stationary Internal Combustion Engines - The requirements in Minn. R. 7011.2305 and 40 CFR pt. 60, subp. IIII apply to stationary compression ignition internal combustion engines, emergency or non-emergency, that were ordered after July 11, 2005. This permit includes requirements for engines subject to subpart IIII with a displacement less than 500 hp and less than 30 liters per cylinder that are either pre-2007 model year, or 2014 model year or later. Specific provisions and standards vary according to the engine size and type. Generally, the conditions of subpart IIII include diesel fuel standards, limits on PM, NO_x, CO, and NMHC/HC, certification or performance test requirements, operation and maintenance requirements, and recordkeeping and notification requirements.

Stationary Internal Combustion Engines - The requirements in Minn. R. 7011.2310 and 40 CFR pt. 60, subp. JJJJ apply to stationary spark ignition internal combustion engines that were ordered after June 12, 2006 and manufactured on or after July 1, 2008 or July 1, 2009 (for emergency engines). This permit includes requirements for engines subject to subpart JJJJ that are less than 500 hp. Specific provisions and standards vary according to the engine size and type. Generally, the conditions of subpart JJJJ include diesel fuel standards, limits on CO and NOx + HC, requirements to purchase a certified engine, and recordkeeping and notification requirements.

Air Pollution Control Equipment - The requirements set forth in Minn. R. 7011.0060 - 7011.0080 include the listed control equipment and the control equipment efficiencies, the control equipment general requirements, monitoring and record keeping for the listed control equipment. Compliance with these requirements is necessary to qualify for this general permit, so these rules apply to stationary sources that are issued this general permit under Minn. R. 7011.0065, subp. 1(A).

3.3.5 Acid Rain Program

Acid rain program requirements are provided in the 1990 CAAA, Sections 401-416. These requirements are for power utilities with a generating capacity of more than 25 megawatts and are not applicable to stationary sources covered by this general permit. Therefore, these requirements are not included in the permit application or permit.

3.3.6 Stratospheric Ozone Protection

The Stratospheric Ozone Protection requirement in the permit pertains to a federal program that the state does not enforce. Stratospheric ozone protection requirements are for phasing out ozone-depleting chemicals as provided in the 1990 CAAA, Sections 601-618. These requirements are for manufacturing, selling, distributing, or using ozone depleting halogenated chemicals. These requirements may apply to stationary sources eligible for this general permit and stationary sources who are subject to these requirements must comply with these rules.

3.3.7 Compliance Assurance Monitoring (CAM)

The CAM rule (40 CFR pt. 64) applies to facilities that have uncontrolled emissions greater than 100 tpy, are subject to an emission limit or standard and depend emission control devices to meet the limits or standards. The enhanced monitoring may apply to stationary sources eligible for this general permit as required under 40 CFR pt. 64.

CAM plans were established for this general permit. Only control equipment identified as “other PSEU” will be eligible for this general permit as controlled emissions will be less than 100 tpy. The general permit includes provisions that require the Permittee to comply with CAM requirements. If the Permittee objects to any of the CAM plans in the permit application, the Permittee must obtain an individual Part 70 permit.

3.3.8 Periodic Monitoring

40 CFR § 70.6(a)(3) of the Title V regulations specifies the standard monitoring and related recordkeeping and reporting requirements that each Title V permit must contain. One important element of the monitoring, recordkeeping, and reporting requirement of Title V is that each permit must contain periodic monitoring sufficient to yield reliable data from relevant time period that is representative of the facility’s compliance with the permit. This provision is commonly referred to as a gap-filling provision.

Under Minn. R. 7007.0800, subp. 4, the MPCA will require the Permittee of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements. To achieve this objective, the MPCA staff considered all the relevant factors approved by EPA on periodic monitoring requirements for permitted sources.

In evaluating the monitoring included in the permit, the MPCA considered the following:

1. The likelihood of violating the applicable requirements;
2. Whether add-on controls are necessary to meet the emission limit;
3. The variability of emissions over time;
4. The type of monitoring, process, maintenance, or control equipment data already available;
5. The technical and economic considerations associated with the range of possible monitoring methods; and
6. The type of monitoring found on similar emission units.

The MPCA staff considered all the relevant factors and incorporated all requirements into the general permit.

3.3.9 Solid Waste Combustion

Solid waste combustion requirements are provided in the 1990 CAAA, Section 129. These requirements are for municipal solid waste incinerators and incinerators of hospital, medical and infectious waste and are not applicable to cleaning, painting/coating, cutting, grinding, blasting, fuel combustion, and general fiberglass stationary sources; with or without pollution control equipment. Therefore, these requirements are not included in the permit application or permit.

3.3.10 Federal Ozone Measures for the Control of Emissions From Certain Sources

Federal ozone measures for the control of emissions from certain sources requirements are provided in the 1990 CAAA, Section 183(e). As of December 2000, rules have not been promulgated under this Section of the CAA. These requirements are for manufacturing, processing, distributing, or importing consumer or commercial products that emit VOCs and are not applicable to cleaning, painting/coating, cutting, grinding, blasting, fuel combustion, and general fiberglass stationary sources; with or without pollution control equipment. Therefore, these requirements are not included in the permit application or permit.

3.3.11 Environmental Review

On October 30, 2006, the Minnesota Environmental Review Rules (Minn. R. ch. 4410) were revised to include the new provisions for air pollution of a stationary source facility that constructs or increases emissions by 250 tons or more per year of any single air pollutant after pollution control. An environmental review is required for a new source or modification to an existing source when potential emissions increase by greater than or equal to 250 tpy of any single criteria pollutant. Since the recent changes to the Environmental Assessment Worksheet threshold from 100 tpy to 250 tpy for individual criteria pollutants won't eliminate the need for an Air Emission Risk Analysis (AERA), the Permittee should still plan to complete an AERA if their stationary source is the subject of significant public interest, or existing stationary source expansion indicates a need for further analysis prior to issuance. If a company does an AERA and it results in a need for source specific permit conditions, then the stationary source is not eligible for this general permit.

3.3.12 Other Applicable Minnesota Requirements

In addition to the Minnesota requirements described above, the Minnesota rules listed in Table 3-3 apply to stationary sources qualifying for this permit.

Table 3-4

TITLE OF THE RULE	MINNESOTA RULES (Chapter or Part)	WHAT THE CONTENT OF THE RULE IS:
Air Quality Emission Fees	7002	Requires stationary sources to pay emission fees every year within 60 days of MPCA billing.
Air Pollution Episodes	7009.1000 - 7009.1110	Requires stationary sources to comply with episode control directives issued by the commissioner.
Performance Tests	7017.2000 - 7017.2060	Outlines requirements for emissions performance testing.
Emission Inventory	7019.3000 et seq.	Requires stationary sources to submit an emission inventory report by April 1st every year.

TITLE OF THE RULE	MINNESOTA RULES (Chapter or Part)	WHAT THE CONTENT OF THE RULE IS:
Circumvention	7011.0020	No one may conceal or dilute emissions which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.
Notifications	7019.1000	Requires stationary sources to notify MPCA of shutdowns and breakdowns.
Monitoring Equipment	7007.0800, subp. 4(D)	Requires the Permittee to install or make needed repairs to monitoring equipment.
Monitoring Equipment Calibration	7007.0800, subp. 16(J)	Requires the Permittee to calibrate annually all monitoring equipment other than continuous emission monitors.
Operation and Maintenance Plan	7007.0800, subp. 16(J)	Requires the Permittee to retain at the stationary source an operation and maintenance plan for all air pollution control equipment.
Reporting of Deviations Endangering Human Health and the Environment	7007.0800, subp. 6(A)	Requires the Permittee to report any deviation from the permit conditions which could endanger human health or the environment.
Inspections	7007.0800, subp. 9	Allow the MPCA, or an authorized representative or agent of the MPCA, to enter the Permittee's premises, to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any stationary sources, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.
Minnesota and National Ambient Air Quality Standard	7009.0010 - 7009.0080	No one is allowed to emit any of the listed pollutants in such a manner that ambient levels of the pollutant are higher than the maximum level.
Noise Pollution Control	7030.0010 - 7030.0080	Sets noise standards in decibels which cannot be exceeded.

4.0 CONTENT OF GENERAL PERMIT

A permit template has been developed for this general permit and was based on the MPCA individual permit template. The difference between the MPCA individual permit template and the general permit template is that parts that are not applicable were removed as explained in Section 3.

4.1 Permit Organization

In general, this permit meets the MPCA Delta Guidance for ordering of requirements. One area where this permit deviates slightly from Delta guidance is in grouping of requirements: due to the general nature of this permit, the MPCA does not have the list of equipment identification numbers prior to permit issuance, and so cannot associate specific items with the groups. Also, the requirements of a group may apply to members of the group individually. Again, this was done because without prior access to the list of specific units at a given facility, it would not be possible to write the permit with requirements separated out for the individual units. Instead, the requirements were written for groups of a given type of emission unit.

Another area that deviates from the guidance is in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be electronically tracked (e.g., limits, submittals, etc.), should be in Table A or B of the permit. The main reason is that the appendices are word processing sections and are not part of the electronic tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these. However, due to the constraints of the Delta database and the structure and complexity of this general permit, the entire permit is a word processing section and is not part of the electronic tracking system. The use of appendices for this permit does not further reduce the MPCA's electronic tracking ability for requirements in this permit.

5.0 CONTENTS OF APPLICATION

Application Content

A tailored permit application has been developed, as provided by Minn. R. 7007.1100, subp. 5, for the purpose of this general permit. The following Table is a summary of how the standard application forms adapted for the general permit application.

Table 5-1

FORM	COMMENTS
SCP-01 Submittal Cover Page	Retained. Applicants use the same form as used for a standard application.
Total Facility Application Instructions	Retained with significant modifications to fit this general permit. Form name was changed to Handbook and Application Instructions, Form number was changed to GPHGBK3.
CR-02 Hood Certification	Retained. Form number was changed to LECR-02.
HE-01 Hood Evaluation	Retained. Form number was changed to LEHE-01.
CK-01 Operating Permit Application Requirements	Retained with significant modifications to fit this general permit. Form name was changed to Application Forms Master List. Form number was changed to LEmaster.
IA-01 Insignificant Activities	Retained with those not required and those required to be listed indicated on a single form with space available for the applicant to list those required to be listed. Form number was changed to LEIA-01.
GI-01 Facility Information	Retained with certain answers pre-filled. Form number was changed to LE-01.
GI-02 Process Flow Diagram	Retained. Form number was changed to LE-02.
GI-03 Facility and Stack/Vent Diagram	Retained. Form number was changed to LE-03.
GI-04 Stack/Vent Information	Retained. Form number was changed to LE-04.
GI-05A Pollution Control Equipment Information	Retained with certain answers pre-filled, and with form separated by control equipment type. Form number was changed to LE-05A1 through LE-05A4.
GI-05B Emission Unit Information	Retained with certain answers pre-filled, and with form separated by emission unit type. Form number was changed to LE-05B1 through LE-05B9.
GI-05C Tank Information	Retained with certain answers pre-filled. Form number was changed to LE-05C.
GI-05D Fugitive Emission Source Information	Retained with certain answers pre-filled. Form number was changed to LE-05D.
GI-07 Facility Emissions Summary	Retained. Form number was changed to LE-07.
GI-09 Requirements Forms (including GI-09A through GI-09I)	Retained with modifications to fit this general permit and with certain answers pre-filled. Form numbers were changed to LE-09 (including LE-09A through LE-09I).
CD-01 Compliance Plan	Removed because required information is included in the general permit
CD-02 Compliance Certification	Retained with modifications to fit this general permit. The form number was changed to LE-06.

FORM	COMMENTS
CD-03 Compliance Schedule	Removed because required information is included in the general permit
CD-05 Compliance Plan for Control Equipment	Retained with modifications to fit this general permit. <i>The form number was changed to LECD-05.</i>
EC-Series Emission Calculations Forms	Not required. As with the standard application, applicants must provide an editable spreadsheet with all necessary calculations. They may use the EC-series forms to assist them in preparing the spreadsheet, but are not required to submit the EC-series forms.
ME-01 Continuous Monitoring System Information	Removed as not applicable to this general permit.
MI-01 Building and Structure Information	Removed as not applicable to this general permit.
EMS-00 EMS Permit Qualification	Retained with significant modifications to fit this general permit. <i>The form number was changed to LE-00.</i>
CH-17 Individual Permit Administrative Changes	Retained with modifications to fit this general permit. <i>The form number was changed to GP-01.</i>
CR-04 Annual Compliance Certification Report.	Retained with modifications to fit this general permit. <i>The form number was changed to LECR-04.</i>
TF-Series Halogenated Solvent Cleaners Forms; 4W-01, 4M-01, 4P-01, 4Z-01 Initial Notification forms for NESHAPs; DRF-1 Excess Emissions Reporting Form; DRF-2 Deviations Identified by Periodic Monitoring Systems; CS-01 Compliance Schedule Progress Report; AQRF Air Quality Reporting Form Checklist for Routine Submittals	Retained. Applicants use the same forms as used for a standard application, as needed.
[N/A]	Form LE-EIL Annual Equipment Inventory List was created for this general permit and has no standard application parallel.
[N/A]	Form LE-CMP Compliance Management Plan was created for this general permit and has no standard application parallel.

6.0 POTENTIAL TO EMIT (PTE)

6.1 Overview

Criteria pollutants emitted from typical material usage and processing operations and combustion sources; with or without pollution control equipment are summarized in Table 6.1.

Table 6-1

Sources	PM/PM ₁₀ /PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	HAP	GHG
Cleaning				X			X	
Spray and coating booths (painting/coating)	X			X			X	
Mixing	X			X			X	
Molding, casting, lamination	X			X			X	
Resin and gel coaters	X			X			X	
Abrasive blasting	X							
Cutting, grinding, sanding	X							
Fuel combustion (natural gas, distillate oil, LPG, biodiesel, gasoline)	X	X	X	X	X	Neg.	X	X
Storage tanks				X			X	

Without restrictions, the PTE of several of the criteria pollutants, especially PM/PM₁₀/PM_{2.5}, NO_x, VOC, and CO may have exceeded 100 tpy (list of 26)/250 tpy, and the PTE of GHGs may have exceeded 100,000 tpy CO₂-e. Facilities that constructed and operated prior to receiving an air emissions permit may have exceeded the major source threshold for one of the criteria pollutants. This general permit is designed to provide a streamlined and more affordable process for facilities which have exceeded the major source thresholds for NSR to get a permit. The MPCA has incorporated a generic BACT-equivalent analysis into this general permit to address the injunctive relief requirements for NSR. Facilities will be required to limit actual emissions, as detailed in the calculation method in Appendix A, to ≤25 tpy for PM/PM₁₀/PM_{2.5}, SO_x, NO_x, VOC, and CO. The PTE of GHG emissions are limited by allowable NO_x emissions as detailed later in this section. Minn. R. 7007.0200, subp. 2 still defines a source as a major stationary source if it exceeds 100,000 tpy of GHG.

Facilities that operated prior to receiving an air emissions permit may have exceeded major source thresholds for NESHAPs. This general permit is designed to accommodate both major and area sources of HAPs. Facilities eligible for this permit will be required to limit HAP emissions, as detailed in the calculation method in Appendix A, to ≤ 5 tpy for any single HAP, and ≤ 12.5 tons per year for total HAP. HAP emissions from fuel combustion, eligible insignificant activities and fugitive sources are not included in the calculation. It is the intention of this general permit to limit HAPs to below major source thresholds for NESHAPs. Since the limit is set at half of that threshold, there is adequate allowance for non-material usage HAPs, given the restriction on combustion due to the strict NO_x limits.

Fuel combustion is the only significant source of SO₂, NO_x, CO, and GHGs. Limiting levels of SO₂ is accomplished by applying fuel type limitations. Limiting levels of GHGs is accomplished by limiting NO_x emissions. The strict emissions limits for NO_x and CO reflect the intent of this general permit to address low-emitting facilities. Typical facilities would use small portable generators for spray-painting and/or emergency power, as well as small boilers/furnaces for heating and/or drying.

Limiting emission levels of VOC to a potential of less than 25 tpy is accomplished by requiring record keeping of the amount of VOC-containing materials used, as well as allowing credit for VOC-containing materials which are recycled or shipped as waste. Limiting emission levels of each PM, PM₁₀, and PM_{2.5} to a potential of less than 25 tpy is accomplished by requiring record keeping of the amount of PM-containing materials used, and allowing credit for the use of particulate matter control equipment on stationary particulate emissions generating booths for abrasive blasting, sanding, and spraying/coating operations. With these requirements and limitations, the total particulate matter emissions from spraying /coating, and abrasive blasting will not exceed 25 tpy. PM and VOC emissions from fuel combustion, eligible insignificant activities and fugitive sources are not included in the calculation. It is the intention of this general permit to strictly limit VOC and PM emissions as an approach to achieving BACT-equivalent reductions at the facility. Since the emission limit is set at half of the Registration Permit threshold (which is the permit for which most of the target facilities would have qualified), there is adequate allowance for non-material usage of VOC and PM emissions.

A summary of the highest expected allowable PTE rates in tpy for each stationary source described in the proposed general permit are as follows:

Sources	PM/PM ₁₀ /PM _{2.5}	SO ₂	NO _x	VOC	CO	Pb	HAP	GHG
Material Usage and Processing Operations including: Spraying and Coating Operations, Cleaning, Mixing, Molding, Casting, Lamination, Resin and gel coaters, Abrasive blasting	25	0	0	25	0	0.2	5 / 12.5	0
Fuel combustion	3	<1	25	3	25	Neg.	Neg.	62,000
Storage tanks	0	0	0	1	0	0	Neg	0
Insignificant Activities*	5	5	5	5	5	Neg.	Neg.	Neg.
Total Facility PTE (tpy)	33	5	30	36	30	0.2	12.5	62,000

* Facilities are allowed to install emission units that are eligible insignificant activities as part of this general permit. Emission sources contained within Minn. R. 7007.1300, subps. 2 and 3 lists insignificant activities, which by design have a PTE less than or equal to 1 tpy. Actual emissions are expected to be lower. For the sources targeted by this general permit (i.e. autobody shops, small cabinet makers, owners of emergency generators), it is unlikely that a Permittee would have more than 5 eligible insignificant activities.

Details on the emission limitations are described below.

6.2 Fuel Combustion

Some stationary sources covered by this general permit will have fuel combustion processes. This general permit allows these stationary sources to use a variety of fuels including natural gas, distillate oil (diesel) and liquefied petroleum gas (LPG) for indirect and direct heating sources, and natural gas, distillate oil (diesel) and biodiesel for internal combustion engines. Fuel combustion is the only significant source of SO₂, NO_x, CO, and GHGs. These processes may have potential emissions greater than 100 tpy/250 tpy for SO₂, NO_x and CO; these processes may also have potential emissions greater than 100,000 tpy CO₂-e of GHGs. This general permit will include enforceable restrictions to maintain emissions below 25 tpy for each of these criteria pollutants. Combustion units which qualify as insignificant activities are not subject to the 12-month rolling sum emission limits.

6.2.1 NO_x and CO emission limits

Based on the expected combustion needs of low-emitting facilities likely to use this general permit, the actual quantities of NO_x and CO emitted to the atmosphere will be within the limitations of this permit's 25 tpy emission thresholds. Limiting levels of GHGs is accomplished by limiting NO_x emissions. These imposed restrictions are in the general permit as federally enforceable limitations on PTE. The restrictions establish limits such that the stationary source achieves BACT-equivalent reductions and is not subject to NSR requirements.

Procedures to estimate and limit PTE from fuel combustion are described in Appendix A to the permit, Section 2. Combustion Sources.

- **CO and NO_x actual emissions are calculated using emission factors or engine manufacturer certified emission information and fuel-usage data**

6.2.2 GHG emission restrictions

Ensuring emission levels of CO₂e do not exceed the major source threshold specified in Minnesota Rules to a potential of less than 100,000 tpy is accomplished by meeting the fuel type restrictions and the NO_x emission limit of ≤ 25 tpy as discussed above in Section 6.2 Combustion Emissions. For example:

- *Allowable NO_x emissions = 25 tpy, for a boiler that is: $60 \text{ MMBtu/hr} \times 100 \text{ lb/ft}^3 / 1020 \text{ Btu/MMft}^3 \times 8760/2000$*
 - *GHG PTE based on 60 MMBtu/hr boilers = 30917 tpy = $60 \text{ MMBtu/hr} \times 120000 \text{ lb/ft}^3 / 1020 \text{ Btu/MMft}^3 \times 8760/2000$*
 - *Allowable NO_x emissions for low NO_x burner = 25 tpy, for a boiler that is: $120 \text{ MMBtu/hr} \times 50 \text{ lb/ft}^3 / 1020 \text{ Btu/MMft}^3 \times 8760/2000$*
 - *GHG PTE based on 1200 MMBtu/hr boilers = 61835 tpy = $120 \text{ MMBtu/hr} \times 120000 \text{ lb/ft}^3 / 1020 \text{ Btu/MMft}^3 \times 8760/2000$*
- **GHG emissions are limited based on NO_x emissions, and do not need to be calculated to show compliance with the pollutant-specific emission limits of 25 tpy in this general permit**

6.2.3 Fuel-combustion SO₂ emission restrictions

SO₂ emissions from combustion sources are determined directly by the type and quantity of fuel consumed. Thus, the permit for eligible combustion sources (excluding eligible insignificant activities) includes limits for fuel usage (and hence SO₂ emitted) to be determined by use of a fuel flow meter(s) or by use of purchase and inventory records. The general permit also makes a provision to allow the combustion of any combination of natural gas, distillate oil (diesel) and LPG for indirect heating sources and distillate oil (diesel) and biodiesel for external combustion engines.

- SO₂ emissions are limited based upon allowable fuel types, and do not need to be calculated to show compliance with the pollutant-specific emission limits of 25 tpy in this general permit

Example of SO₂ emissions from an emergency generator burning diesel fuel with 15 ppm sulfur.

<i>Emergency Generator</i>	<i>PM/ PM₁₀ PM_{2.5}</i>	<i>NO_x</i>	<i>SO₂</i>	<i>VOC</i>
<i>2200bhp 1125 kW</i>	<i>0.108</i>	<i>25</i>	<i>0.00434</i>	<i>0.137</i>

AP-42 Table 3.4-2 Emission Factors

6.2.4 Fuel-combustion VOC, PM, PM₁₀ and PM_{2.5} emission restrictions

VOC, PM, PM₁₀ and PM_{2.5} emissions from fuel combustion are 5-10% of NO_x emissions, the limiting pollutant for fuel combustion. This would result in maximum calculated VOC, PM, PM₁₀ and PM_{2.5} emissions of 2.5 tpy. For combustion activities, BACT-equivalent reductions are met through strict emission limits on NO_x and CO, engine certifications, fuel type limitations and use of best management practices. Since emission limits are set at half of the Registration Permit threshold (which is the permit for which most of the target facilities would have qualified), there is adequate allowance for combustion emissions of VOC, PM, PM₁₀ and PM_{2.5} outside of the 25 tpy emission limits for these pollutants.

- VOC, PM, PM₁₀ and PM_{2.5} emissions from fuel combustion less than 3 tpy, and do not need to be calculated to show compliance with the pollutant-specific emission limits of 25 tpy in this general permit

6.3 Limiting Particulate Emissions

Limiting material usage emissions levels of PM/PM₁₀/PM_{2.5} to a potential of ≤ 25 tpy based on a 12-month rolling sum by is accomplished by requiring tracking PM/PM₁₀/PM_{2.5} contents and use of PM/PM₁₀/PM_{2.5}-containing materials. Limiting material processing emission levels of PM/PM₁₀/PM_{2.5} to a potential of ≤ 25 tpy based on a 12-month rolling sum by is accomplished by requiring use of an approved emission factor for PM/PM₁₀/PM_{2.5} and requiring tracking of the amount of material processed. The Permittee is required to perform emissions calculations each month for the PM/PM₁₀/PM_{2.5} material usage and processing operations from the previous month and for the 12-month rolling sum through the previous month. The Permittee may take credit for control equipment on particulate emissions generated. Particulate emissions from welding, brazing, grinding, cutting and soldering are usually considered insignificant activities under Minn. R. 7007.1300, subp. 3. and Minn. R. 7008, and are not required to be tracked. Emissions from insignificant activities are accommodated outside of the 25 tpy emissions cap. The Permittee must keep records of PM/PM₁₀/PM_{2.5} emissions to account for the actual emissions and submit an annual emission inventory to the MPCA. The recordkeeping provisions and methods of calculation are addressed in the application and permit package. **Procedures to estimate and limit PTE from material usage and processing operations are described in Appendix A to the permit, Section 3. The limitation for PM/PM₁₀/PM_{2.5} is based on a 12-month rolling sum.**

6.4 Limiting VOC Emissions

Limiting emissions levels of VOC to a potential of ≤ 25 tpy based on a 12-month rolling sum by is accomplished by requiring tracking VOC contents and use of VOC-containing materials. The Permittee is required to perform calculations each month for the VOC emissions from the previous month and for the 12-month rolling sum through the previous month. Permittees may take credit for waste recovery and recycling. **Procedures to estimate and limit PTE from VOC emitting operations are described in Appendix A to the permit, Section 4. The limitation for VOC is based on a 12-month rolling sum.**

6.5 Limiting HAP Emissions

This permit will limit emissions levels of HAP from material usage to a potential of ≤ 5 tpy for any single HAP and ≤ 12.5 tpy based on a 12-month rolling sum using material balance calculations and emission factors from 40 CFR pt. 63, subp. WWWW. The Permittee can use any organic HAP emission factors most recently approved by US EPA, such as factors from AP-42 or site-specific organic HAP emission factors if they are approved by the MPCA. The Permittee may also take credit for recovery and recycling of HAP emissions as specified in the permit. HAP emissions from combustion sources are not included in the limit and calculation as they are negligible based upon the fuel type limits and the NO_x emission limits. The HAP limits are set at half of the major source thresholds so HAPs from combustion and eligible insignificant activities will be accommodated. **Procedures to estimate and limit PTE from HAP-emitting operations are described in Appendix A to the permit, Section 6. The limitation for HAP is based on a 12-month rolling sum.**

6.6 Fugitive Emissions

Stationary sources covered by this general permit will not be required to submit fugitive emission calculations because this general permit includes strict limits on potential emissions for criteria pollutants. Fugitive sources must be identified in the application; however, to comply with Part 70 requirements.

7.0 COMMENTS RECEIVED

Public Notice Period: December 23, 2014 - January 21, 2015

EPA 45-day Review Period: December 23, 2104 – February 5, 2015

Two comment letters were received during the public notice period. Both commenters supported the development of the general permit, but expressed their concern regarding its complexity and the difficulty that Permittee's may have achieving compliance with the general permit. There were also several suggestions for clarifications and improvements to the general permit. Some of these clarifications have been incorporated, and some of the suggestions will be implemented upon reissuance of this general permit.

Changes to the Permit subsequent to Public Notice include:

1. Clarification of the Type of Emission Unit Allowed. The list of specific emission units allowed by this permit was replaced by:
 - **Type of Emission Units Allowed:** The stationary source must not have any emission units other than the following types of process operations and emission units:
 - Combustion Sources, including eligible boilers, burn-off ovens, catalytic or thermal afterburners, furnaces, eligible internal combustion engines (generators), ovens, and space heaters;
 - Material Usage Operations, including adhesive application, casting, cleaning/stripping (including acid cleaning, degreasers, general cleanup with solvents), dip tanks, injection molding, lamination, mixing, molding, resin and gel coating, screen printing, soldering, spraying and coating activities, and stenciling;
 - Material Processing Operations which can be determined using the calculation methods in Appendix A, including abrasive blasting, cutting, fuel storage, grinding, sanding, and welding;
 - Fugitive sources; and/or
 - Insignificant Activities listed in Minn. R. 7007.1300, subp. 2 and 3, and/or conditionally insignificant activities listed in Minn. R. 7008 which include smaller emission units for combustion, material processing and usage operations, storage tanks, and fugitive sources.

to more correctly reflect the type of emission units intended to be covered by this facility. This correction was made throughout the permit, TSD and supporting forms.

2. Clarified that eligible insignificant activities included those listed in Minn. R. 7007.1300, subps. 2 and 3 or conditionally insignificant activities listed in Minn. R. 7008. It does not include those

listed in Minn. R. 7007.1300, subp. 4. This was misstated within the TSD and certain portions of the permit.

3. Clarified that Best Management Practices (BMPs) did not apply to eligible insignificant activities or fugitive sources.
4. Clarified that BMPs for combustion sources were to follow APPLICABLE industry BMPs.
5. Clarified that BMPs for fuel sulfur content applies to diesel and No. 2 fuel oil.
6. Clarified that lead-containing material is applicable to the lead content of coating materials only. It does not apply to items such as lead-acid batteries that may exist at the facility.
7. Clarified the Material Content language to state that the Permittee may use the industry standard Safety Data Sheet, and that if there is information provided in the Regulatory Section of the SDS, that the upper limit of that range may be used to determine the material content.
8. Cleaned up the calculation methods in Appendix A to clarify that they apply to all material usage and processing operations that qualify to use those calculations (i.e. they have a known material content or approved emission factor).
9. Corrected values in the Control Efficiency requirements in Table A. There were transcription errors. The correct values are those from the Pollution Control Rule as referenced within the TSD and permit.
10. Forms – Clarified and updated the forms to be consistent with the changes made to the permit and TSD.

8.0 CONCLUSION

Based on the eligibility criteria for facilities applying for this general permit, the MPCA has reasonable assurance that the proposed operation of the emission facilities that receive this permit, as described in the 2015 Part 70 Low-Emitting Facility General Permit and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team:

- Bonnie Nelson (permit engineer and project manager)
- Cassandra Meyer (permit engineer and forms manager)
- Rachel Yucuis (permit engineer)
- Toni Volkmeier (permit engineer and project supervisor)
- Amrill Okonkwo (peer reviewer)
- Brent Rohne (compliance, enforcement, and performance testing)
- Laurie O'Brien (administrative support)

9.0 ATTACHMENTS

Attachment 1 - CAM Plans (from Form LE-09H)

Attachment 2 – Comment Letters and MPCA response

9.1 ATTACHMENT 1 CAM PLANS

The next section contains CAM Plans for those units to which CAM may apply under the Part 70 Low-Emitting Facility General Permit.

The Permittee indicates which CAM Plan(s) apply(apply) to units at the facility in application form LE-09H. If the Permittee has units which are subject to CAM that are not covered by any of the attached CAM plans, then the Permittee does not qualify for this general permit. Attached CAM Plans:

- CAM Plan for HEPA and Other Wall Filters Controlling PM, PM10 and PM2.5 [Other PSEU]
- CAM Plan for Fabric Filters/Baghouses controlling PM, PM10 and PM2.5 [Other PSEU]
- CAM Plan for Catalytic Oxidizer controlling VOC [Other PSEU]
- CAM Plan for Thermal Oxidizer controlling VOC [Other PSEU]

CAM Plan for Wall Filters Controlling PM, PM₁₀ and PM_{2.5} [Other PSEU]

1. Applicability

- 1.1. Process/Emission Unit: Controlled Material Usage or Processing Unit [Other PSEU]
- 1.2. Control Technology: HEPA and other Wall Filters
- 1.3. Pollutant: Particulate Matter (PM, PM₁₀, PM_{2.5})

2. Monitoring Approach Description

Indicators Monitored	Visually inspect the condition of the filters.
Rationale for Monitoring Approach	If there are any holes, saturation, tears or alignment in the filter, these indicate there is little or no particulate removal.
Monitoring Methods Location	Adhere to the Operation and Maintenance Plan for the filters and take corrective action as soon as possible (within 24 hours of discovery) to eliminate any problem associated with the filters.
Analytical Devices Required	Train staff on the operation and monitoring of the filters and troubleshooting. Also, train and require staff to respond to indications of malfunctioning equipment and, including indicators of abnormal operation.
Data Acquisition and Measurement System Operation	Frequency of Measurement: Once each operating day, visually inspect the condition of each filter with respect to alignment, saturation, tears, holes, and any other matter that may affect the filter’s performance. Reporting units: daily check of the condition of the filter. Recording process: Records are maintained of all inspections and maintenance activities performed. Operators record activities maintenance log sheets, initial and date.
Data Requirements	The baseline is determined by the facility’s historical records of the condition of the filter with respect to alignment, saturation, tears, holes, and any other matter that may affect the filter’s performance.
QA/QC Procedures	Operate and maintain each filter in accordance with the Operation and Maintenance Plan and while taking into account the manufacturer’s specifications.

3. Justification

Compliance testing is not necessary for the owner or operator to establish operating ranges so that excursion from the operating ranges can be addressed prior to potential emission exceedance. Monitoring based on the Minnesota Standards of Performance for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic inspections, corrective actions, O & M, and hood design records) and to ensure that control equipment continues to operate properly and achieve the desired PM control efficiency.

CAM Plan for Fabric Filters/Baghouses Controlling PM,PM₁ and PM_{2.5}[Other PSEU]

1. Applicability

- 1.1. Process/Emission Unit: Controlled Material Usage or Processing Unit [Other PSEU]
- 1.2. Control Technology: Fabric Filters
- 1.3. Pollutant: Particulate Matter (PM, PM₁₀, PM_{2.5})

2. Monitoring Approach Description

Indicators Monitored	Pressure Drop and Visible Emissions (VE)
Rationale for Monitoring Approach	Decrease in pressure drop indicative of bag failure; Increase in pressure drop indicative of fabric blinding or decreased permeability; A change in VE observations indicates process change, changes in fabric filter’s efficiency, or leaks.
Monitoring Methods Location	Measure across the inlet and outlet of each compartment of the fabric filter. RM 22 (VE) requirements.
Analytical Devices Required	Pressure transducers, differential pressure gauges, manometers, other methods and/or alternative instrumentation as appropriate. Trained observer using visible/no visible emissions observation techniques (RM 22-like)
Data Acquisition and Measurement System Operation	Frequency of Measurement: Record pressure drop once every 24 hours when in operation, or continuously on strip chart and daily VE checks as weather permits. Reporting units: Inches of water column (in w.c). and visible/no visible emissions. Recording process: Record the time and date of each visible emission inspection and pressure drop reading, and whether or not any visible emissions were observed, and whether or not the observed pressure drop was within the range specified. If the pressure drop is outside the required operating range and VE emission are observed, the owner or operator will follow the Operation and Maintenance plan for the fabric filter and take corrective action within 24 hours of discovery. Keep a record of the type and date of any corrective action taken for each filter.
Data Requirements	The facility’s historical records on pressure drop measurements determine the baseline. No data are needed for visible emissions.
QA/QC Procedures	Calibrate, maintain and operate instrumentation using the procedures that take into account the manufacturer’s recommendations and initial training of

observer per RM 22.

3. Justification

Compliance testing is not necessary for the owner or operator to establish operating ranges so that excursion from the operating ranges can be addressed prior to potential emission exceedance. Monitoring based on the Minnesota Standards of Performance for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic inspections, corrective actions, O & M, and hood design records) and to ensure that control equipment continues to operate properly and achieve the desired PM control efficiency.

CAM Plan for Catalytic Oxidizers Controlling VOC [Other PSEU]

1. Applicability

1.1 Process/Emission Unit: Controlled Material Usage or Processing Unit

1.2 Control Technology: Catalytic Oxidizer

1.3 Pollutant: Volatile Organic Compounds (VOCs)

2. Monitoring Approach Description

Indicators Monitored	Catalyst bed inlet temperature and catalyst activity.
Rationale for Monitoring Approach	Catalyst bed inlet temperature: Indicates whether the gas flowing into catalyst bed is of sufficient temperature to initiate oxidation. Catalyst activity: Determines conversion efficiency of catalyst; indicates that catalyst is not poisoned or masked beyond operational range.
Monitoring Methods Location	Catalyst bed inlet and outlet temperature: Preheat chamber outlet and catalyst bed inlet. Catalyst activity: Sample of catalyst.
Analytical Devices Required	Temperature: Thermocouples, or alternative methods/instrumentation as appropriate for specific gas stream. Catalyst activity: Qualified laboratory (e.g. catalyst manufactures) for determining activity of catalyst sample.
Data Acquisition and Measurement System Operation	Frequency of Measurement: Once every 24 hours when in operation, or recorded continuously on strip chart or data acquisition system. Reporting Units: Degrees Fahrenheit (° F) Recording process: Operators log data manually, or recorded automatically on strip chart or data acquisition system. Catalyst activity: Annual analyses of catalyst sample.
Data Requirements	The facility’s historical records on catalyst bed inlet and outlet temperature measurements. Catalyst activity: Laboratory results of conversion efficiency.
QA/QC Procedures	Calibrate, maintain and operate instrumentation using the procedures that take into account the manufacturer’s recommendations and specifications.

3. Justification

Compliance testing is not necessary for the owner or operator to establish operating ranges so that excursion from the operating ranges can be addressed prior to potential emission exceedance. Monitoring based on the Minnesota Standards of Performance for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic inspections, corrective actions, O & M, and hood design records) and to ensure that control equipment continues to operate properly and achieve the desired VOC control efficiency.

CAM Plan for Thermal Oxidizers Controlling VOC [Other PSEU]

1. Applicability

1.4 Process/Emission Unit: Controlled Material Usage or Processing Unit

1.5 Control Technology: Thermal Oxidizer

1.6 Pollutant: Volatile Organic Compounds (VOCs)

2. Monitoring Approach Description

Indicators Monitored	Combustion chamber temperature and annual burner inspections.
Rationale for Monitoring Approach	Combustion chamber temperature: Proper temperature range is related to good performance. Annual burner inspection: Maintain proper operation and efficiency.
Monitoring Methods Location	Combustion chamber temperature: Outlet of combustion chamber. Annual burner inspection: At the burner.
Analytical Devices Required	Combustion chamber temperature: Thermocouples or alternative methods/instrumentation as appropriate for specific gas stream. Annual burner inspection: None
Data Acquisition and Measurement System Operation	Frequency of Measurement: Combustion chamber temperature: Once every 24 hours when in operation, or recorded continuously on strip chart or data acquisition system. Annual burner inspection: Annually Reporting Units: Combustion chamber temperature: Degrees Fahrenheit (° F) Annual burner inspection: None Recording process: Combustion chamber temperature: Operators log data manually, or recorded automatically on strip chart or data acquisition system. Annual burner inspection: Operators log data manually.
Data Requirements	The facility's historical records on combustion chamber temperature measurements and burner inspection.
QA/QC Procedures	Calibrate, maintain and operate instrumentation using the procedures that take into account the manufacturer's recommendations and specifications.

3. Justification

Compliance testing is not necessary for the owner or operator to establish operating ranges so that excursion from the operating ranges can be addressed prior to potential emission exceedance. Monitoring based on the Minnesota Standards of Performance for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic inspections, corrective actions, O & M, and hood design records) and to ensure that control equipment continues to operate properly and achieve the desired VOC control efficiency.

9.2 ATTACHMENT 2 Comment Letters and Responses



COMMENTS
MINNESOTA POLLUTION CONTROL AGENCY REGARDING PROPOSED RULES ESTABLISHING A LOW-EMITTING FACILITY GENERAL PERMIT FOR AIR EMISSION

The Minnesota Pollution Control Agency has requested Comments regarding the proposed general permit for low-emitting businesses.

The Alliance of Automotive Service Providers of Minnesota (AASP-MN) represents over 700 collision and mechanical auto repair shops across the state. These small, independently-owned shops are low-level emitters of criteria pollutants and hazardous air pollutants and, as such, may be required to obtain the new proposed general permit for low-emitting facilities. AASP-MN has a number of concerns regarding the proposed permit and would like to seek clarification as to how certain aspects of the rule will be applied to its member businesses.

In addition to specific concerns with the proposed permit outlined below, AASP-MN has a number of general concerns regarding the establishment of this permit. For example, it is important that facilities that apply for the new permit not be subject to an enforcement action. *An amnesty period must be established in order to facilitate a process whereby businesses now determined to require the permit can seek to comply with permit requirements without being subject to enforcement action and possible fines.* Failure to establish such an amnesty period will not facilitate compliance.

In general, the proposed rule represents a rather complicated and burdensome process for small businesses. There are a number of places in the proposed rule where acronyms are used and not defined. Reference is made to forms in the draft rule which are not included or attached to the Draft permit materials and are not readily accessible through other means. It is particularly difficult to comment on the rules and assess the challenges that businesses might face in compliance when the draft rule itself uses language which is not commonly understood or understandable and refers to forms which are not presented nor readily available. *It is our contention that a typical auto repair facility would not have the expertise to accurately complete the permit application and would require the help of an outside expert to do so, thereby incurring significant additional costs in the thousands of dollars.*

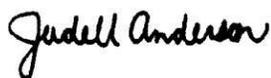
Some specific concerns include the following:

- Table A.1, Page 10: Fuel Usage – *Use of waste oil for heating should not disqualify a shop from qualifying for the proposed permit.*
- Table A.1, Page 11: Best Management Practices for Abrasive Blasting – *With respect to emissions from blasting activity, AASP-MN proposes that the rule exempt use of handheld equipment and blasting cabinets where exhaust ventilation is already present at the facility.*
- Table A.1, Page 13: Change of name, ownership, or control of stationary source – *With respect to notice relating to change of ownership, AASP-MN regards the 7 day timeframe as too restrictive. We would propose that the timeframe for notice of change of ownership be extended to 30 days.*
- Table A.1, Page 14: Particulate Matter – *In discussions leading up to the publication of the draft rule and request for comments, our conversations with the MPCA staff have addressed the need for development of a reduced recordkeeping option for certain businesses. We would respectfully request that MPCA develop language to provide for reduced recordkeeping in those circumstances where emissions are 50% or less of the limit allowed by the general permit.*
- Table A.1, Page 10 Lead Containing Materials – *With respect to lead-containing materials, AASP-MN would request that the rule clearly specify that it applies to only spraying of lead-containing materials.*

The proposed rule calls for a number of notifications and reports. *AASP-MN inquires whether it is possible to standardize annual reporting on a single form which businesses would utilize to ensure compliance.*

With respect to permit re-issuance, we note that the general permit has a five year duration. *We would request clarification regarding the process for re-issuance – whether established by ongoing compliance or through an entirely new application process.*

Respectfully submitted,



Judell Anderson, CAE Executive
Director



28 January 2015

CHES, Inc.

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RE: Proposed Air Emission Facility Part 70 Low-Emitting Facility General Permit

CHES is a safety/health/environmental consulting firm, specializing in assisting small businesses. Our clients typically have fewer than 100 employees; most have fewer than thirty employees. Some are manufacturers (wood products, agricultural equipment, machine parts...). A large number are automotive service facilities, usually either collision repair or collision repair/mechanical combined. We have been providing safety/health/environmental consulting assistance to collision repair facilities for over twenty years.

As part of the services we provide, we evaluate whether clients need air quality permits. We help them obtain the appropriate permits, help them if they need to change the type of permit (e.g., if they need to change from B registration permits to D permits), and help them with the required annual reporting.

Our comments on the permit are based on our knowledge of our clients and our experience with helping them comply with air quality permit requirements.

General Comments on Proposed Permits

We strongly agree that there is a need for a general permit for those small businesses and low-emitting stationary sources that are unable to qualify for registration permits because of their calculated Potential to Emit. But such a permit has to be feasible for them. We're concerned that this permit, as it now stands, would be nearly as difficult for them to obtain as a major source permit. It would be an incomprehensible process, with extremely onerous recordkeeping requirements.

We have worked with a number of companies that fall into the situation that this proposed permit is intended to address: their actual chemical use is low enough that they would readily qualify for a registration permit (often a B permit), but because of available paint technologies, their potential to emit would classify them as a major source. These facilities fall into two categories:

- Companies that did not know an air quality permit would be needed when they started their facility.
- Companies whose operations initially qualified as insignificant, but which have grown enough to now need a permit.

Our hope is that this permit would address both of those groups. But based on our experience working with companies that fall into these categories, we believe that many of these would have a difficult time figuring out how to comply with this. We think most shop owners would look at what's required and decide that they would be better off continuing as they had been, ignoring the requirement.

Recommendation: Provide plain language guidance documents on how to get the permit. Do not develop those solely internally, but have them vetted by your target audiences.

Provide guidance documents that would, in simple non-regulatory language, state what actions the shop has to take to qualify for the permit, and what actions would make it impossible to qualify. For instance, a facility that uses solvent-based paints and is subject to 4M/4P would never be able to qualify for this permit unless the shop adds on pollution control equipment to capture VOCs/HAPs. But perhaps the facility could change to all waterborne paints.

Observation: Only very small automotive collision repair facilities could qualify for this permit, because most shops will not be compliant with the 4M/4P HAPs limits. The industry standard for automotive paints has moved to waterborne basecoats. But more than half of the coating applied to a car is solvent-based, even in the shops that have switched to waterborne paints. A typical car painting process requires at least application of a primer-sealer, base coat, and clear coat. In Minnesota, we have only seen waterborne base coats – never waterborne primers and never waterborne clears.

Will shops that apply for this permit, now or in the future, be given amnesty from enforcement actions?

Our experience (more than one occasion) has been that the process of applying for a permit flags shops as being in violation for not having had a permit, so risking the application process opens the companies up to enforcement action. We would prefer to see this permit used as an alternative to enforcement action, so that companies that are trying to qualify for and obtain a permit can work with the MPCA to that end.

The permit requires facilities to do a tremendous amount of recordkeeping. Our clients aren't unusual or dumb – many are very successful businesses – but trying to complete records such as those required for D registration permits is well beyond their expertise. Even with the help of the Small Business Environmental Assistance Program spreadsheet templates, completing a spreadsheet to calculate VOC, particulate matter, and HAP usage would be extraordinary difficult for them. Collision repair shops use hundreds of different products that would need to be entered on such a spreadsheet. New products are added each year. Some custom blends are often used. These shops simply do not have the technical knowledge or the trained personnel to enable them to maintain these records, much less the additional records required by this permit.

We also question the value of the mass of data that must be collected and maintained. Who will ever determine if the data are accurate? Who will review the data?

Specific Comments on Proposed Permit

Table A.1., Page 9, Equipment List Inventory

Facilities need to maintain a written list of each emission unit/control equipment.

This references form LE-EIL, but we did not see that form.

1. How is emission unit defined? Several collision repair facilities have general exhaust ventilation units, equipped with filters, in their body shops. No pollution control, OSHA, or building code standard requires these filters. But shop air is exhausted through them. Would they be considered emission units? Collision repair facilities that have space for more than six vehicles are required by OSHA and building codes to have general exhaust ventilation systems to reduce carbon monoxide concentrations inside the facility. Would those be considered emission units? Facilities which do automotive repair need to have tailpipe exhaust units, vented outdoors. Would those be included?
2. What are facilities to do if they do not know the date of installation or the manufacturer?
3. How are they to list all of the required NSPS or NESHAP? And what is the value of including that, other than to increase the regulatory burden?
4. What is considered a modification or change? Would a change of paint booth filter manufacturers (no change in filter efficiency) require updating of the list? Would a change to a more efficient filter require updating?
5. Can the list be kept electronically?

Table A.1., Page 10, Eligibility Evaluations

What documentation will be required for equipment additions or modifications? Will any change, regardless of how minor, require formal evaluation?

Page 10, Lead containing materials

This needs to specify that it refers to lead-containing materials that are sprayed or otherwise emitted.

Facilities with battery-operated forklifts have lead-acid batteries on site. Shops that do mechanical work will have lead wheel weights in the shop, even though those will no longer be installed. And all automotive shops will have lead-acid batteries.

We rarely see lead-containing paint in automotive facilities (other than those that do some specialty painting, such as painting school buses). Setting a limit on lead coating materials is not a concern. But prohibiting lead-containing materials at all would eliminate any facility with an electric forklift.

Page 11: Best Management Practices for Abrasive Blasting

Would handheld, vacuum equipped blasters and abrasive blasting cabinets be exempt, if those are done in an area with general exhaust ventilation intended for a different purpose? Example: body shops or attached mechanical shops, where any small amount of blasting would be done, will have exhaust ventilation to control carbon monoxide.

Page 12: Best Management Practices for Combustion Sources

This will apply to many facilities, as, for instance, automotive paint booths are usually rated at 1.5 MBTU.

1. Will companies need to document preventive maintenance?
2. When will fuel scrubbing and testing be required?

Page 13: Ownership Changes

What criteria are used to determine if a new owner meets the eligibility requirements, presuming there's no change in operation?

Page 13: National Emission Standards for Hazardous Air Pollutants

Nearly every automotive paint-using facility (other than those so small that they're exempt) will have difficulty complying with 4M and 4P without add-on controls and extensive recordkeeping, because the available technology for automotive paints does not meet the HAPs limits without additional controls. While waterborne base coats easily meet the 4M/4P limits, the primers and clears typically used do not.

Page 14: Pollutant Limits

The limits on the different pollutants require facilities to keep monthly rolling averages. For small facilities, which (in our experience) have usually had calculated emissions that are less than a quarter of the amounts allowed, this is an onerous amount of paperwork.

- We routinely do the emission calculations for three facilities using automotive paints. Each of those uses more than 350 distinct paint or VOC-containing products each year. Each year, we need to add some products to the list.

- One wood products paint supplier has automated the process, providing monthly reports detailing these calculations. But none of our clients' automotive paint suppliers have, even though they include some of the largest suppliers in the state. In some cases, the inventory reports from which we obtain the data are so simple that they are provided to us as text (*.txt) files.

Recommendation: Allow an option, preferably set at half the limit, for reduced recordkeeping, as is allowed with D registration permits.

Page 16: Operational Requirements – Operations and Maintenance Plan Recommendation: provide guidelines on what's required in such a plan. We would prefer to see a template or standardized plan for specific industries or control equipment. For instance, if this will be specifically for maintenance of paint booth filters, we recommend that the MPCA develop a template for that equipment.

Pages 17/18: Pollution Control Equipment Requirements – Control Efficiencies Collision repair facilities are routinely using paint booth filters that are 98% efficient, as required for the 6H NESHAP. But we don't know if the filters will meet the control efficiencies of 65% for PM2.5. How will shops be expected to prove that the required control efficiencies are met? Are data on PM2.5 efficiency for spray booth filters available?

Page 20: Monitoring Equipment

1. Calibration is required either every twelve months or at the manufacturer's recommendation. To clarify, can it be longer than twelve months if the manufacturer's recommended interval is longer?
2. Inclined manometers are used to verify that paint booths are operating at the correct relative pressure. I do not recall seeing calibration instructions for these, and the instruction manual for the product from one major manufacturer of these, Dwyer, does not mention calibration. Is calibration required of every piece of monitoring equipment, even if the manufacturer provides no guidelines or recommendations for calibration?

Page 22: Monthly Calculation for fuel usage/ PM / VOC / HAP

We strongly recommend providing an option for reduced recordkeeping.

As we've stated above, this is a tremendous amount of recordkeeping for small facilities, such as those that use less than 2000 gallons of paint a year, and whose calculated emissions are less than 10% of the limits for any and all of these parameters. An example of VOC and HAP calculations: one collision repair facility users about 365 unique products, often purchased by the half liter, for which data would need to be entered each month.

While these calculations may be easy for a facility that paints large numbers of items in the same few colors, collision repair shops mix custom colors for every single paint job done. Each job is matched to

the existing color of the particular part of the car to be painted. To get those precise matches, shops routinely stock small amount of as many as eighty different bases. The types of primer and hardener used vary, depending on the basecoat used, the surface coated, and even the weather.

Setting up the data for initial entry is a task that takes us days – and we are intimately familiar with reading safety data sheets and have done this multiple times. When we've tried to have clerical staff in our clients' offices take over this task, they fail as soon as a new product shows up. And because of the specialty nature of the work, we often need to add new products every single month.

Page 22: Material Content

The permit states that if a material content range is given on the Material Safety Data sheet, the highest number in that range must be used. But we have encountered safety data sheets that provide a range of concentrations in the *Ingredients* section, and a very precise percentage in the *Regulatory* section. Is there a reason why the more precise and accurate number should not be used?

Note: as of June 2015, material safety data sheets will be called safety data sheets, per 29CFR1910.1200.

Page 23: Reporting and Submittals Requirements – Compliance Management Plans What constitutes new, modified, or changed equipment? If a painter buys a new spray gun (but still an HVLP gun), must the shop owner notify the MPCA?

Is only notification required? Or will permittees be required to wait for the MPCA to respond in some way?

Page 25: Equipment Inventory List and Emission Inventory Report Can these be done on one form?

Can the equipment inventory simply be confirmation that equipment has not changed? Will these be able to be done electronically, in one reporting effort?

Page 60, 62: HAP Emission Limits – Existing Source and Compliance Requirements Based on usage data from a shop that uses waterborne automotive base coats, no automotive repair facility will be able to meet the HAPs-Organic limit of 2.6 lbs/gallon coating solids, because of the primers and clear coats. They will not be able to meet either the compliant material option or the facility specific emission limit.

Page 94, 95: HAP Emission Limits – Existing Source and Compliance Requirements Based on usage data from a shop that uses waterborne automotive base coats, no automotive repair facility will be able to meet the HAPs-Organic limit of 0.16 lbs/lb coating solids, because of the primers and clear coats. They will not be able to meet either the compliant material option or the facility specific emission limit.

Permit Appendix B – General Provisions Index

Do you intend this table to substitute for the current requirement to highlight the specific sections of the NESHAPs that apply to permit applicants?

We found the table to be very difficult to understand. Its purpose was not clear to us. Do you intend the permit applicants to look at the table (after they have determined whether, for instance, MMMM applies to them) and to then look at the referenced part of 40CFR63? If so, that intent and the purpose in doing so needs to be clearly stated.

Appendices

Because you are trying to address so many different industries with one permit, the permit as proposed is unwieldy. If we had to determine what a specific client would need to comply with, it would take a ream of paper and hours of time, simply to sort through the different sections.

Recommendation: Electronically bookmark each section. Include headers on each page, to indicate what that page pertains to (e.g., "Permit Appendix F for WWWWW"). Provide an index or guide, so it is possible to easily determine what sections would apply, for instance, to our automotive clients.

Page 413: LE-00

Provide a plain language guide, to help small businesses complete these forms. For example, the term "BACT-equivalent permit conditions" will be incomprehensible to someone who does not routinely deal with EPA regulations.

Page 417: II. Applicable Requirements

As Form LE-09 was not included, as best we could determine, it is not possible to review this section.

Facilities that lack air permitting expertise on staff will not have the knowledge to answer these questions.

Page 419: III. Compliance Status

If facilities are not currently in compliance with NSPS or NESHAP requirements, what timeline will they be given to come into compliance? Will the MPCA work with them prior to the permit being issued?

If, for instance, a facility needs to change its painting system or add on pollution control equipment to come into compliance, either of those major efforts is likely to take more than thirty days. If the company agrees to permit conditions that will bring it into compliance, knowing that it needs to make a major switch, would the company then be found in violation if the switch didn't happen immediately?

We support the goal of reduced air pollution. But our experience in working with small businesses for over twenty years has convinced us that while many businesses want to do the right thing, they also do not want to waste money on generating reams of records that do not change operating practices (or emissions). As this permit now stands, we fear it will continue to discourage compliance.

Thank you for the opportunity to comment on this proposed permit.

A handwritten signature in black ink, appearing to read 'Janet L. Keyes', is positioned on the left side of the page.

Sincerely yours,

Janet L. Keyes, CIH Principal
CHESS, Inc.



Minnesota Pollution Control Agency

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March 17, 2015

Ms. Judell Anderson, CAE, Executive Director
Alliance of Automotive Service Providers of Minnesota, Inc.
1970 Oakcrest Avenue, Suite 102
Roseville, MN 55113

RE: Response to comment on Part 70 Low-Emitting Facility General Permit

Dear Ms. Anderson et al:

I would like to thank you for your comments on the Part 70 Low-Emitting Facility General Permit (general permit). Minnesota Pollution Control Agency (MPCA) staff is aware of, and shares, many of your general concerns regarding the regulations that have resulted in the development of this general permit. I would like to take this opportunity to respond to your concerns.

GENERAL CONCERNS

1. Enforcement Amnesty. We will be able to provide an initial amnesty period for facilities that apply for this general permit. A letter informing the public of this is still being developed, and will be mailed to your association, amongst others, as well as be posted on the web page for the Low-Emitting General Permit found at <http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-forms/low-emitting-facility-general-permit.html>, likely in April. The amnesty period is currently effective, and will be effective for approximately one year from the date of issuance of the general permit.

2. Permit Complexity. We understand that this will be a challenging permit for a small facility to manage. It is expected that, at least initially, a Permittee will need to hire a consultant to assist them with the development of the application and the compliance management plan. Our Small Business Assistance Program will be available to work with small businesses to determine if they will qualify for the general permit and they will encourage them to seek out the assistance of a qualified consultant.

This general permit is intended for facilities which construct and operate without first obtaining an air emissions permit. Facilities which apply for a permit before they construct can obtain a much simpler Registration Permit. This general permit was developed as an optional enforcement and permitting tool

which will be available to certain qualified facilities. It is less expensive and complicated than the current option of being subject to enforcement action, conducting a Best Available Control Technology (BACT) analysis and obtaining an individual Part 70 operating permit.

The underlying reason for the complexity of the General Permit is the need for many existing facilities to comply with federal rules for major source National Emission Standards for Hazardous Air Pollutants (NEHSAPs) and injunctive relief for facilities subject to New Source Review (NSR). The MPCA must enforce these rules. However, we are continuing to work towards identifying better solutions such as:

- Pursuing writing a prohibitory rule for facilities such as auto-body shops that use less than 3000 gallons of volatile organic compound (VOC) and particulate matter (PM) containing materials. In essence this rule would allow a facility to have a “permit by rule” as long as they limit their usage and maintain the records as required by the rule. Our section has submitted this as a proposed rulemaking, but given current resources and priorities, it is anticipated it would be more than 10 years before this could be effective. Even then, this rule would be forward-looking only.
- Pursuing a case-by-case determination from enforcement staff at U.S. Environmental Protection Agency (EPA) that facilities with very low actual emissions, such as auto-body shops, were never intended to trigger a major source NESHAP. We are currently looking for facilities that would be willing to work with us to prepare an applicability determination to see if this may be another available avenue of relief.

3. Notification and Reports. We have established an Implementation Team to work on the issues related to implementation of a new permit concept. They will be providing training to our Small Business Assistance Unit, so that they can better assist businesses. They will be continuing to clarify the forms and associated instructions; as well as develop guidance documents and spreadsheets to assist compliance. I have forwarded your comments to them so that they can follow up on some of your suggestions relative to implementation. Even after issuance of the general permit we can continue to improve the quality of our forms, instructions, handbook and other guidance, and will do so.

4. Permit Reissuance. You are correct that a general permit has a duration of 5 years from issuance. The 5-year period will expire in 2019, regardless of the date of application an individual facility. Prior to the expiration date in 2019, the Permittee must submit an application for the Reissued Low-Emitting General Permit. The facility should be able to use most of their previous application, however they would be required to update it to reflect any changes that have been made at the facility.

SPECIFIC CONCERNS

Table A.1., Page 10: Fuel Usage: If a combustion unit qualifies as an insignificant activity, we will not regulate the type of fuel which may be combusted. I clarified this within the permit. However, the use of low-sulfur fuel is considered a BACT-equivalent limit, which must be included to address emission units that would be subject to Injunctive Relief for New Source Review (40 CFR Section 52.21).

Table A. 1., Page 13: Change of name, ownership or control: The general permit rules for name changes found at Minn. R. 7007.1100, subp. 8 states that the Permittee submit a notification prior to changing the name, ownership or control. Allowing 7 days to do so may not even be acceptable.

Table A.1, Page 14: Reduced recordkeeping: I appreciate the desire for reduced recordkeeping. I have added this comment to the list of improvements to consider for the next permit issuance in 5 years. Unfortunately, adding this option for this general permit is complicated by the need to comply with the major source NESHAPs for most facilities.

Table A.1., Page 10: Lead-containing materials: I have clarified the permit to specify that this requirement only applies to materials that are sprayed or otherwise emitted, and that it does not apply to insignificant activities.

I hope that you find the responses helpful. I have made changes to the permit where clarifications were needed. In addition to those changes identified in this response, I have also made some changes to the calculation methods to help clarify the process and which units can use the calculation methods provided. The team has made numerous changes to clarify or simplify the forms, and plans to post them in April. We are currently training the Small Business Assistance Program staff so that they can better assist Permittees with determining if they are eligible for this permit.

Thank you again for your comments, they have been and will continue to be, helpful in making this permit as useful as possible.

I expect to issue the General Permit by April 1, 2015. Please feel free to contact me at 651-757-2600, or via email at bonnie.nelson@pca.state.mn.us if you have further questions or comments regarding the general permit.

Sincerely,

Bonnie J. Nelson, P.E.
Senior Engineer
Air Quality Permits Section
Industrial Division

BJN:lao



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March 17, 2015

Ms. Janet Keyes, CIH
Principal
CHESS, Inc.
7600 Valley Creek Plaza #115-108
Woodbury, MN 55125

RE: Response to Comments on Proposed Part 70 Low-Emitting Facility General Permit

Dear Ms. Keyes:

I appreciated the opportunity to have a conversation with you about the concerns with the General Permit that you raised in your comment letter. We share a lot of the same frustrations with the limitations and complexity of the draft permit; however, I believe your comments will serve to improve the permit, forms and our assistance efforts.

As we discussed, the underlying reason for the complexity of the General Permit is the need to comply with federal rules for major source National Emission Standards for Hazardous Air Pollutants (NEHSAPs) and injunctive relief for facilities subject to New Source Review (NSR). This general permit is one tool that can be used by facilities that, for the most part, constructed and operated prior to obtaining an air emissions permit. The Minnesota Pollution Control Agency (MPCA) is continuing to work towards additional tools such as:

- Pursuing writing a prohibitory rule for facilities such as auto-body shops that use less than 3000 gallons of VOC and PM containing materials. In essence this rule would allow a facility to have a “permit by rule” as long as they limit their usage and maintain the records as required by the rule. Our section has submitted this as a proposed rulemaking, but given current resources and priorities, it is anticipated it would be more than 10 years before this could be effective. Even then, this rule would be forward-looking only.
- Pursuing a case-by-case determination from enforcement staff at EPA that facilities with very low actual emissions, such as auto-body shops, were never intended to trigger a major source NESHAP. We are currently looking for facilities that would be willing to work with us to prepare an applicability determination to see if this may be another available avenue of relief.

General Comment Responses

We agree that this will be a challenging permit for a small facility to manage. It is expected that, at least initially, a Permittee will need to hire a consultant to assist them with the development of the application and the compliance management plan. Our Small Business Assistance Program will be available to work with small businesses to determine if they will qualify for the general permit and they will encourage them to seek out the assistance of a qualified consultant.

- Web Page. We have set up a web page for the general permit which can be reached via this link: <http://www.pca.state.mn.us/index.php/air/air-permits-and-rules/air-permits-and-forms/air-forms/low-emitting-facility-general-permit.html>.
- Implementation Team. We have a team that is working on the issues related to implementation of a new permit concept. They will be providing training to our Small Business Assistance Unit, so that they can better assist businesses. They will be continuing to clarify the forms and associated instructions; as well as develop guidance documents and spreadsheets to assist compliance. I have forwarded your comments to them so that they can follow up on some of your suggestions relative to implementation. Even after issuance of the general permit we can continue to improve the quality of our forms, instructions, handbook and other guidance, and will do so.
- Permit Improvements. The permit was developed quickly, with the goal to make this tool available as soon as possible. Comments that are related to streamlining and simplifying the options for recordkeeping and compliance within the permit will be maintained, so that we can address them when the permit is reissued in 5 years.
- Data. The data that is required by this permit is based largely upon federal requirements. Data is most often reviewed by MPCA staff during enforcement inspections and file reviews, and during permit issuance.

Specific Comments on Proposed Permit

Note: Items that have been changed within the permit in response to your comments are in boldface

Table A.1, pages 9 and 10: The list of questions in these comments suggests clarifications that could be made to the forms and handbook to understand the program and permit better. I have forwarded these suggestions to the implementation team. They may be able to clarify the instructions, or provide a response on the web page in our section that will be entitled “Frequently Asked Questions”.

Page 10: Lead-containing Materials: I have clarified the permit to specify that this requirement only applies to materials that are sprayed or otherwise emitted.

Page 11: BMP for Abrasive Blasting: I have clarified the permit to address that the BMPs don’t apply to abrasive blasting activities that qualify as insignificant activities. Small blasting operations should qualify as insignificant activities.

Page 12: BMP for Combustion Sources: I have clarified the permit to address that the BMPs don’t apply to combustion sources that qualify as insignificant activities. Also, I have clarified that the BMPs for testing would only apply if recommended for that unit by the manufacturer.

Page 13: Ownership Changes: The new owner would apply for an Administrative Amendment to change ownership.

Page 13: NESHAPs: The permit contains both major-source and area-source NESHAPs. If a facility is exempt, they would only need to comply with the area-source standards. The MPCA does not have the authority to exempt facilities from the standards if they have triggered major source status.

Page 14: Pollutant Limits: Your comment will be considered for the next reissuance of the permit. Once we have some facilities which have the permit, we can then evaluate which areas of the permit we can work on to address their needs.

Page 16: I have forwarded your suggestion to the Implementation Team.

Page 17/18: I purposely chose a control efficiency for PM2.5 that was lower to account for the lack of information available on PM2.5 efficiencies in spray booth filters. The facilities should maintain the manufacturer information that they do have and use 65% in any calculations.

Page 20:

1. You can follow the manufacturer recommendations.
2. You should ask the permit engineer reviewing your application. They can address this for you since they will have the information specific to that facility.

Page 22: Material Content. I have made the clarification in the permit that the SDS should be used, and that the highest value in the optional regulatory section can be used if available.

Page 23: Notifications do not require a response from the MPCA for you to proceed.

Page 25: We can clarify the form instructions. I have forwarded this to the Implementation Team.

Pages 60, 62, 94, and 95: If the facility is unable to comply with the major-source NESHAP, and they are subject to it, they will need to contact enforcement staff. We can not issue the general permit to a facility that is unable to comply with it. If there is a facility like this, I would be very interested in talking to them to see if they would be willing to submit an applicability determination to U.S. Environmental Protection Agency enforcement section. They have stated to us that it was never the intent of the standard to apply to such a small facility. But it does. We are hoping that they would qualify for a case-by-case exemption from the standard, which could ultimately lead to a general policy of exemption for similarly-sized sources.

Permit Appendix B: I will forward your concern about this table to the Implementation Team. We can clarify the instructions. The table includes all generally-applicable general provisions for the facilities. The highlighted version is intended to be site-specific, so the appendices do not take their place. I can see that there is room for improvement in this Appendix. Perhaps we could provide more tailored requirements for each option (even though that will make the permit longer), and then not need the highlighted version. I will add this to areas to consider for reissuance.

Appendices: I ABSOLUTELY agree with your suggestion. We have been given approval to post the permit in Word format (without the cover page) on the web page. The Table of Contents is electronically linked to the remainder of the document. Alternately, a Permittee could take the word document and delete unnecessary sections to customize a smaller document. They would need to be aware that if they added or modified equipment to become subject to another standard they would need to be aware of that. I

will forward your suggestion to the Implementation Team to see if there are additional ways to make the permit more accessible (I break mine up into smaller more manageable pieces).

Page 413: LE-00. I will forward your suggestion to the Implementation Team.

Page 417: All of the forms are available on the website. We will continue to improve the forms and welcome continued suggestions for improvement. We understand that a consultant will likely be required to work through the forms.

Page 419: The permit lays out the requirements for compliance. If a facility is not able to comply with this permit, they should contact enforcement staff to work on a solution. There is an enforcement amnesty period associated with the launch of this general permit which will be effective approximately one year. Once the letter is finalized, it will be posted on the web page.

I hope that you find the responses helpful. I have made changes to the permit where clarifications were needed. In addition to those changes identified in this response, I have also made some changes to the calculation methods to help clarify the process and which units can use the calculation methods provided. The team has made numerous changes to clarify and simplify the forms, and plans to post them in April. We are currently training the Small Business Assistance Program staff so that they can better assist Permittees with determining if they are eligible for this permit.

Thank you again for your comments, they have been and will continue to be, helpful in making this permit as useful as possible.

I expect to issue the General Permit by April 1, 2015. Please feel free to contact me at 651-757-2600, or via email at bonnie.nelson@pca.state.mn.us if you have further questions or comments regarding the general permit.

Sincerely,

Bonnie J. Nelson, P.E.
Principal Engineer
Air Quality Permits Section
Industrial Division