

AIR EMISSION PERMIT NO. 05300143-002

IS ISSUED TO

TENNANT COMPANY

701 Lilac Drive North
Golden Valley, Hennepin County, MN 55422-4611

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date
Total Facility Operating Permit	June 15, 1995
Supplemental Submittal #1	February 1, 2001
Supplemental Submittal #2	March 9, 2001
Supplemental Submittal #3	March 19, 2001
Supplemental Submittal #4	March 21, 2001
Supplemental Submittal #5	April 25, 2001
Major Amendment	September 17, 2004

This permit authorizes the permittee to modify and operate the stationary source at the address listed above unless otherwise noted in Table A. The permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: State/Limits to Avoid NSR and Part 70

Issue Date: May 9, 2005

Expiration: Non-Expiring
All Title I Conditions do not expire.

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial Division

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	(651) 296-6300
Outside Metro Area	1-800-657-3864
TTY	(651) 282-5332

The rules governing these programs are contained in Minn. R. ch. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about other air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Tennant Company manufactures industrial floor maintenance equipment at its plant in Golden Valley, Minnesota. The main sources of air emissions at the facility include fuel combustion and painting. The portions of the facility that qualify as Insignificant Activities under Minn. R. 7007.1300, subp. 3 and 4 are listed in Appendix I.

The facility has taken limits to avoid major source classification for New Source Review (40 CFR 52.21) in an air emissions permit issued in 1993. These limits are carried forward in this permit along with new limits to avoid major source classification for Part 70 and National Emission Standards for Hazardous Air Pollutants (40 CFR pt. 63).

The permit contains requirements that limit emissions of volatile organic compounds, particulate matter, combustion pollutants and hazardous air pollutants.

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: Total Facility

What to do	Why to do it
This permit establishes limits on the facility to keep it a minor source under New Source Review, Part 70, and Part 63. The Permittee cannot make any change at the source that would make the source a major source under New Source Review, Part 70, and/or Part 63 until the appropriate permit or permit amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications, minor amendments, or moderate amendments.	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
Labeling Requirement: The permittee shall permanently affix the emissions unit number to each boiler, paint booth, and engine exhaust area for tracking purposes within 60 days of permit issuance. The number can be affixed by placard, stencil, or other means. The number shall be maintained so that it is readable and visible at all times from a safe distance.	Minn. R. 7007.0800, subp. 2
STANDARD REQUIREMENTS	ndr
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.	Minn. R. 7019.1000, subp. 3
At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.	Minn. R. 7019.1000, subp. 2
At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Subject Item: GP 001 VOC Usage Limits

Associated Items: EU 005 Off-Line Booth

EU 006 Primer Booth

EU 007 Topcoat Booth

EU 028 Chemical Room Repack Operations

What to do	Why to do it																										
A. LIMITS	hdr																										
<p>Volatile Organic Compounds: less than or equal to 80 tons/year to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit.</p> <p>All emission units added to GP 001 as allowed in this permit shall be included in this calculation. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in GP 001. The calculation of VOCs emitted may take into account waste VOCs as described under the Waste Credit requirement in GP 001.</p>	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200																										
<p>HAP-Single: less than or equal to 8.0 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. The first 12-month period shall begin with the month of permit issuance.</p> <p>All emission units added to GP 001 as allowed in this permit shall be included in this calculation. HAP contents for each HAP-containing material shall be determined as described under the Material Content requirement in GP 001. The calculation of HAPs emitted may take into account waste HAPs as described under the Waste Credit requirement in GP 001.</p>	Title I Condition: Limit to avoid major source classification under 40 CFR Section 70.2, 40 CFR Section 63.2, and Minn. R. 7007.0200																										
<p>HAP-Single: For the first 12 months, starting with the month of permit issuance, total GP 001 emissions of each individual HAP shall be less than or equal to the following as an accumulated sum:</p> <table> <tr> <th>Month</th><th>Cumulative HAP-Single Limit</th></tr> <tr><td>1</td><td>1.5</td></tr> <tr><td>2</td><td>3.0</td></tr> <tr><td>3</td><td>4.0</td></tr> <tr><td>4</td><td>4.5</td></tr> <tr><td>5</td><td>5.0</td></tr> <tr><td>6</td><td>5.5</td></tr> <tr><td>7</td><td>6.0</td></tr> <tr><td>8</td><td>6.5</td></tr> <tr><td>9</td><td>7.0</td></tr> <tr><td>10</td><td>7.33</td></tr> <tr><td>11</td><td>7.67</td></tr> <tr><td>12</td><td>8.0</td></tr> </table>	Month	Cumulative HAP-Single Limit	1	1.5	2	3.0	3	4.0	4	4.5	5	5.0	6	5.5	7	6.0	8	6.5	9	7.0	10	7.33	11	7.67	12	8.0	Title I Condition: Limit to avoid major source classification under 40 CFR Section 70.2, 40 CFR Section 63.2, and Minn. R. 7007.0200
Month	Cumulative HAP-Single Limit																										
1	1.5																										
2	3.0																										
3	4.0																										
4	4.5																										
5	5.0																										
6	5.5																										
7	6.0																										
8	6.5																										
9	7.0																										
10	7.33																										
11	7.67																										
12	8.0																										
<p>HAPs - Total: less than or equal to 23.0 tons/year using 12-month Rolling Sum to be calculated by the 15th day of each month for the previous 12-month period as described later in this permit. The first 12-month period shall begin with the month of permit issuance.</p> <p>All emission units added to GP 001 as allowed in this permit shall be included in this calculation. HAP contents for each HAP-containing material shall be determined as described under the Material Content requirement in GP 001. The calculation of HAPs emitted may take into account waste HAPs as described under the Waste Credit requirement in GP 001.</p>	Title I Condition: Limit to avoid major source classification under 40 CFR Section 70.2, 40 CFR Section 63.2, and Minn. R. 7007.0200																										
<p>HAP-Total: For the first 12 months, starting with the month of permit issuance, the total GP 001 emissions of total HAPs shall be less than or equal to the following as an accumulated sum:</p> <table> <tr> <th>Month</th><th>Cumulative HAP-Total Limit</th></tr> <tr><td>1</td><td>3.0</td></tr> <tr><td>2</td><td>6.0</td></tr> <tr><td>3</td><td>9.0</td></tr> <tr><td>4</td><td>11.0</td></tr> <tr><td>5</td><td>13.0</td></tr> <tr><td>6</td><td>15.0</td></tr> <tr><td>7</td><td>16.5</td></tr> <tr><td>8</td><td>18.0</td></tr> <tr><td>9</td><td>19.5</td></tr> <tr><td>10</td><td>21.0</td></tr> <tr><td>11</td><td>22.0</td></tr> <tr><td>12</td><td>23.0</td></tr> </table>	Month	Cumulative HAP-Total Limit	1	3.0	2	6.0	3	9.0	4	11.0	5	13.0	6	15.0	7	16.5	8	18.0	9	19.5	10	21.0	11	22.0	12	23.0	Title I Condition: Limit to avoid major source classification under 40 CFR Section 70.2, 40 CFR Section 63.2, and Minn. R. 7007.0200
Month	Cumulative HAP-Total Limit																										
1	3.0																										
2	6.0																										
3	9.0																										
4	11.0																										
5	13.0																										
6	15.0																										
7	16.5																										
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9	19.5																										
10	21.0																										
11	22.0																										
12	23.0																										

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

The Permittee shall vent emissions from all spray booths to control equipment meeting the requirements of GP 004. Each booth shall be controlled with specific control equipment as described in Appendix II of this permit.	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
<p>The Permittee may replace listed emission units with emissions units similar to those listed in GP 001, may install additional spray equipment in existing booths, and may modify the emission units listed in GP 001, provided that:</p> <ol style="list-style-type: none"> 1. VOC, single HAP, and total HAP emissions are tracked and calculated directly from material usage; 2. The total maximum spray capacity of any given booth remains less than or equal to those listed in Appendix II of this permit; and 3. The permit contains all applicable requirements for the change. <p>All changes must meet the requirements for GP 001. If a proposed change triggers an applicable requirement that is not contained in this permit, the change must go through the appropriate procedure in Minn. R. ch. 7007.</p>	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
Spray Gun Transfer Efficiency: The Permittee shall use spray guns that meet the minimum transfer efficiencies used in the potential to emit calculations in the Technical Support Document for this permit. Specifically, guns used in EU 005 and 006, shall have minimum manufacturer specified transfer efficiencies of 40% or greater, and guns used in EU 007 shall have minimum manufacturer specified transfer efficiencies of 75% or greater.	Minn. R. 7007.0800, subp. 2
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn R. 7011.0730 or Minn. R. 7011.0735. This limit applies separately to each emissions unit.	Minn. R. 7011.0710, subp. 1(A) or Minn. R. 7011.0715, subp. 1(A), as applicable
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This applies separately to each emissions unit that was in operation before July 9, 1969, and that has not been modified after that date. As of permit issuance, this applies to EUs 005 and 006.	Minn. R. 7011.0710, subp. 1(B)
Opacity: less than or equal to 20 percent opacity. This applies separately to each emissions unit that was not in operation before July 9, 1969 or that has been modified after that date. As of permit issuance, this applies to EUs 007.	Minn. R. 7011.0715, subp. 1(B)
B. MONITORING REQUIREMENTS	hdr
Daily Recordkeeping. The Permittee shall record and maintain the identification of each VOC and/or HAP-containing paint and cleaning material container opened on a daily basis. This requirement only applies to the following emission units: EU 005, EU 006, and EU 007. VOC and HAP usage for EU 028 only needs to be calculated, recorded, and maintained as utilized.	Title I Condition: Monitoring for Limit to avoid classification as major source under 40 CFR 52.21 and Minn. R. 7007.3000, 40 CFR 70.2 and Minn. R. 7007.0200, and Minn. R. 7007.0800, subp. 4 and 5
Monthly Recordkeeping: By the 15th day of each month, the Permittee shall calculate, record, and maintain the total quantity of all coatings and other VOC and HAP-containing materials used in GP 001 during the previous calendar month. This shall be based on production records, written usage logs, and/or delivery records.	Title I Condition: Monitoring for Limit to avoid classification as major source under 40 CFR 52.21 and Minn. R. 7007.3000, 40 CFR 70.2 and Minn. R. 7007.0200, and Minn. R. 7007.0800, subp. 4 and 5
Monthly Recordkeeping -- VOC, Each Individual HAP, and Total HAP Emissions. By the 15th of the month, the Permittee shall calculate and record the following: 1) The total usage of VOC and HAP-containing materials for the previous calendar month using the daily and/or monthly usage records. This record shall also include the VOC, each individual HAP, total HAP, and solids contents of each material as determined by the Material Content requirement of this permit. 2) The VOC, each individual HAP, and total HAP emissions for the previous month using the formulas specified in this permit. 3) The 12-month rolling sum VOC, each individual HAP, and total HAP emissions for the previous 12-month period by summing the monthly VOC, each individual HAP, and total HAP emissions data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
Monthly Recordkeeping For First 12 Months After Permit Issuance: Instead of the 12-month rolling sum of each individual HAP and total HAP emissions, the Permittee shall calculate and record the cumulative monthly sum of each individual HAP and total HAP emissions starting with the month of permit issuance.	Minn. R. 7007.0800, subp. 4 and 5
<p>Monthly Calculation -- VOC, Individual HAP, and Total HAP Emissions. The Permittee shall calculate VOC, each individual HAP, and total HAP emissions using the following equations:</p> <p>VOC/Individual HAP/Total HAP (tons/month) = V - W + R V = (A1 x B1) + (A2 x B2) + (A3 x B3) + W = (C1 x D1) + (C2 x D2) + (C3 x D3) + R = (E1 x F1 x G)/2000</p>	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

<p>Monthly VOC, Individual HAP, and Total HAP Emissions Calculation Continued:</p> <p>where: V = VOC/individual HAP/total HAP used, in tons/month; $A\#$ = amount of each VOC/HAP-containing material used, in tons/month; $B\#$ = weight percent VOC/individual HAP/total HAP in $A\#$, as a fraction; W = VOC/individual HAP/total HAP shipped in waste, in tons/month; $C\#$ = amount of each VOC/HAP-containing waste material shipped, in tons/month. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; $D\#$ = weight percent of VOC/individual HAP/total HAP in $C\#$, as a fraction; R = VOC/Individual HAP/total HAP emitted during repacking, in tons/month; $E\#$ = amount of each VOC/HAP-containing material repacked, in gallons/month; $F\#$ = weight percent VOC/individual HAP/total HAP in $E\#$, in pounds/gallon; G = VOC/individual HAP/total HAP emissions factor for repacking, 5%.</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Material Content: VOC, each individual HAP, total HAP, and solids (PM and PM<10 microns) contents in materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. When using the MSDS as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAP, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAP, and solids contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Waste Credit: If the Permittee elects to obtain credit for VOC and HAP shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the content for each credited shipment.</p> <p>1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, each individual HAP, and total HAP, excluding water.</p> <p>2) The Permittee may use supplier data for raw materials to determine the VOC, each individual HAP, and total HAP content of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC, each individual HAP, and total HAP content of any of the materials.</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Recordkeeping of Equipment and Coating Changes:</p> <p>The Permittee shall keep records of any equipment that is replaced, modified, or added. This record shall be updated any time equipment is replaced, modified or added. The record shall include the date the equipment was replaced/modified/added (startup of new, shutdown of old), the corresponding EU number (005-007), the manufacturer and model numbers of the new equipment, the spray technology and manufacturer specified transfer efficiency, and the total spray capacity in gallons per hour.</p> <p>The Permittee shall keep a record of all coating formulations, as applied, as determined by the Material Content requirement of this permit.</p>	Title I Condition: Monitoring for Limit to avoid classification as major source under 40 CFR 52.21 and Minn. R. 7007.300, 40 CFR 70.2 and Minn. R. 7007.0200, and Minn. R. 7007.0800, subp. 4 and 5
<p>Recordkeeping of Particulate Potential Emissions:</p> <p>Prior to adding spray capacity, or replacing/modifying spray equipment, the Permittee shall calculate and record the maximum hourly potential particulate matter emissions for the emissions unit. The Permittee shall use the calculation methods used in the Technical Support Document for this permit (total hourly solids spray rate x overspray fraction x (1-overall controlled fraction)). The Permittee shall then calculate the appropriate Minn. R. 7011.0730 and 7011.735 limits for the booth based on the airflow and process weight. The calculated potential to emit must be under the Minn. R. limit. If not under the rule limit, the modification is not authorized by this permit.</p>	Minn. R. 7007.0800, subp. 2, 4 and 5; to meet Minn. R. 7011.0730 and 7011.0735

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Subject Item: GP 002 Engine Fuel Limits

Associated Items:

- EU 009 Assembly Line 1, Engine Exhaust
- EU 010 Assembly Line 2, Engine Exhaust
- EU 011 Assembly Line 3, Engine Exhaust
- EU 012 P.D.L. , Engine Exhaust
- EU 013 Engine Test Lab East
- EU 014 Engine Test Lab DYNO
- EU 015 Engine Test Lab West
- EU 016 Engine Test Lab Temp Control Room
- EU 017 Final Test, Engine Exhaust
- EU 018 Run-In, Engine Exhaust
- EU 019 P.D.L, Engine Exhaust
- EU 020 Zane, Engine Exhaust
- EU 021 Zane, Engine Exhaust
- EU 024 Zane, Engine Exhaust

What to do	Why to do it
A. LIMITS	hdr
Fuel Usage: less than or equal to 20,000 gallons/year of Diesel, using a 12-month rolling sum calculated by the 15th of the month for the previous 12-month period as described later in this permit. All diesel fuel used by emissions units in GP 002, including all emission units added to GP 002 as allowed in this permit, shall be included in this calculation.	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
Fuel Usage: less than or equal to 20,000 gallons/year of Propane, using a 12-month rolling sum calculated by the 15th of the month for the previous 12-month period as described later in this permit. All propane used by emissions units in GP 002, including all emission units added to GP 002 as allowed in this permit, shall be included in this calculation.	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
Fuel Usage: less than or equal to 16,300 gallons/year of Gasoline, using a 12-month rolling sum calculated by the 15th of the month for the previous 12-month period as described later in this permit. All gasoline fuel used by emissions units in GP 002, including all emission units added to GP 002 as allowed in this permit, shall be included in this calculation.	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained. This applies separately to each internal combustion engine.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . This applies separately to each internal combustion engine. The potential to emit based on the worst case fuel option is 0.29 lb/MMbtu.	Minn. R. 7011.2300, subp. 2
The Permittee may replace listed emission units, move emission units, modify emission units to include up to seven drops, or add up to five new emission units with up to seven drops similar to those listed in GP 002 provided all permit limits are met including the GP 002 requirements for fuel recordkeeping, monthly fuel calculations, and annual reports.	Title I Condition: Limit to avoid classification as a major source and modification under 40 CFR 52.21; and to avoid major source classification under 40 CFR 70.2 and 40 CFR 63.2
B. MONITORING REQUIREMENTS	hdr
Fuel Recordkeeping: The Permittee shall keep monthly records of fuel used, by fuel type, in gallons, by emissions units in GP 002 combined. The records may consist of purchase or delivery records or written usage logs.	Title I Condition: Monitoring for Limit to avoid classification as major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
Monthly Fuel Calculations. By the 15th of the month, the Permittee shall calculate and record the following: 1). The total gallons of diesel used by GP 002 for the previous calendar month using the fuel usage records. 2). The total gallons of propane used by GP 002 for the previous calendar month using the fuel usage records. 3). The total gallons of gasoline used by GP 002 for the previous calendar month using the fuel usage records. 4). The 12-month rolling sum usage for each of the 3 fuel types for the previous 12-month period by summing the monthly fuel usage data for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Subject Item: GP 003 Boilers**Associated Items:** EU 001 Boiler 1

EU 002 Boiler 2

EU 003 Boiler 3

EU 004 Boiler 4

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . This limit applies separately to each indirect heating unit. Due to equipment design, the PTE of each unit is 0.0072 lb/MMBtu.	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies separately to each indirect heating unit.	Minn. R. 7011.0510, subp. 2
Fuel Type: natural gas and propane only, by design.	Minn. R. 7005.0100, subp. 35a
The Permittee shall keep records of fuel purchases for the boilers on a monthly basis.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Subject Item: GP 004 Paint Booth Filters**Associated Items:** CE 001 Fiberglass Filter w/o Cardboard Frame

CE 002 Fiberglass Filter w/o Cardboard Frame

CE 003 Fiberglass Filter w/o Cardboard Frame

What to do	Why to do it
A. LIMITS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency, for Total Particulate Matter: greater than or equal to 74 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency, for Particulate Matter < 10 micron: less than or equal to 74 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
The Permittee shall operate and maintain the panel filters any time that any process equipment controlled by the panel filters is(are) in operation.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000, and 40 CFR Section 70.2 and Minn. R. 7007.0200
B. MONITORING REQUIREMENTS	hdr
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.	Title I Condition: Monitoring for Limit taken to avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000; 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If the filters or any of their components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Filters: The Permittee shall operate and maintain each filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Hood Certification and Evaluation: The control device hood must conform to the requirements listed in Minn. R. 7011.0070, subp. 1, and the Permittee shall certify this as specified in Minn. R. 7011.0070, subp. 3. The Permittee shall maintain a copy of the certification on site, as well as an annual record of fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method.	Minn. R. 7007.0800, subp. 4, 5, and 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Subject Item: GP 005 Make-Up Air Units**Associated Items:** EU 025 Make-Up Air Unit 1

EU 026 Make-Up Air Unit 2

EU 027 Make-Up Air Unit 3 (Zane)

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . This limit applies separately to each make-up air unit. Due to equipment design, the PTE of each unit is 0.0072 lb/MMBtu.	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent except for one six-minute period per hour of not more than 60 percent opacity. This limit applies separately to each make-up air unit.	Minn. R. 7011.0515, subp. 2
Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp.35a

TABLE A: LIMITS AND OTHER REQUIREMENTS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Subject Item: EU 029 Powder Coat Cure Oven**Associated Items:** SV 030 Powder Coat Cure Oven Stack 1

SV 031 Powder Coat Cure Oven Stack 2

What to do	Why to do it
Total Particulate Matter: less than 0.4 lbs/million Btu heat input . Due to equipment design, the PTE of this unit is 0.0072 lb/MMBtu.	Minn. R. 7011.0515, subp. 1
Opacity: less than 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Fuel Type: natural gas only, by design	Minn. R. 7005.0100, subp.

TABLE B: SUBMITTALS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

Permit Technical Advisor
Permit Section
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

TABLE B: RECURRENT SUBMITTALS

05/09/05

Facility Name: Tennant Co - Golden Valley

Permit Number: 05300143 - 002

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 07/24/2001 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Annual Report	due 30 days after end of each calendar year starting 07/24/2001. The Permittee shall submit an annual report by January 30th that describes the changes made at the facility during the previous calendar year using the latest MPCA application forms. The report shall document the VOC, single HAP, and total HAP 12-month rolling sum calculations and the GP 002 fuel usage 12-month rolling sum calculation for the previous calendar year and all units that were modified, replaced, or added in the previous calendar year. The report shall be submitted with the annual Compliance Certification listed in Table B. As part of the Annual Report, the Permittee shall verify and certify that the facility has maintained non-major source status for New Source Review, Part 70, and Part 63.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 07/24/2001 (for the previous calendar year). To be submitted on a form approved by the Commissioner to the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX I
Facility Name: Tennant Co.
Permit Number: 05300143-002

Insignificant Activities and General Applicable Requirements

The table below lists the insignificant activities that are currently at the Facility and their associated general applicable requirements.

Minn. R. 7007.1300, subp.	Rule Description of the Activity	General Applicable Requirement
3(G)	Emissions from a laboratory, as defined in the subpart. <i>Tennant has several laboratory and testing operations that qualify under this subpart.</i>	Minn. R. 7011.0715 (PM and opacity)
3(H)(3)	Brazing, soldering or welding equipment. <i>Tennant has maintenance welding equipment.</i>	Minn. R. 7011.0715 (PM and opacity)
3(H)(7)	Cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners.	Minn. R. 7011.0715 (PM and opacity)
3(I)	Individual emissions units at a stationary source, each of which have a PTE of the following pollutants in amounts less than: 2 tpy of CO and 1 tpy each of NO _x , SO ₂ , PM/PM ₁₀ , VOC, and ozone. <i>Tennant has numerous combustion units that qualify under this Subpart. These units include space heaters, hot water heaters, ovens and emergency generators, paint mixing, and powder coat pre-washing.</i>	Minn. R. 7011.0610 (PM and opacity) or Minn. R. 7011.0715 (PM and opacity) or Minn. R. 7011.2300 (SO ₂ and opacity)
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source.	Minn. R. 7011.0710/0715
Minn. R. 7007.4110	Equipment venting PM/PM ₁₀ inside a building, provided that emissions from the equipment are filtered through an air cleaning system and vented inside of the building 100% of the time. <i>Tennant has 2 sawing operations that are controlled and vent internally.</i>	Minn. R. 7011.0715 (PM and opacity)

APPENDIX I
Facility Name: Tennant Co.
Permit Number: 05300143-002

Under Minn. R. 7007.1250, subp. 1(A), the Permittee may add insignificant activities to the stationary source throughout the term of the permit without getting permit amendments. Certain exclusions apply and are listed in Minn. R. 7007.1250, subp. 2. In addition, this permit specifically prohibits the Permittee from making any modifications that would make the source major under NSR. The following table is a listing of the insignificant activities that the Permittee is somewhat likely to add and their associated applicable requirements.

Minn. R. 7007.1300, subp.	Rule Description of the Activity	General Applicable Requirement(s)
3(B)(1)	Infrared electric ovens	Minn. R. 7011.0110 (opacity)
3(H)	Blueprint copiers and photographic processes;	Minn. R. 7011.0110 (opacity)

APPENDIX II
Facility Name: Tennant Co.
Permit Number: 05300143-002

Emissions Units Description from Delta
paper copy only

TECHNICAL SUPPORT DOCUMENT
For
Tennant Company, Golden Valley
AIR EMISSION PERMIT NO. 05300143-002

This technical support document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp.1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 3589)
Tennant Company 701 North Lilac Drive Golden Valley, MN 55422	Tennant Company 701 North Lilac Drive Golden Valley, MN 55422 Hennepin County
Contact: Charlie Brandenburg Phone: (763) 513-1837	

1.2. Description of the Facility

Tennant Company manufactures industrial floor maintenance equipment at its plant in Golden Valley, Minnesota. The main sources of air emissions at the facility include fuel combustion and painting. The facility also operates numerous pieces of equipment that qualify as Insignificant Activities under Minn. R. 7007.1300, subp. 3 and 4.

The facility took limits to avoid major source classification for New Source Review (40 CFR 52.21) in an air emissions permit issued in 1993. The facility is a major source under both the federal operating permits program (40 CFR pt. 70) and the National Emissions Standards for Hazardous Air Pollutants (40 CFR pt. 63).

The current facility permit contains requirements that limit emissions of volatile organic compounds (VOC), particulate matter, and combustion pollutants.

1.3 Description of the Activities Allowed by this Permit Action

Tennant's Part 70 permit issued on July 24, 2001 (05300143-001) allows the Golden Valley facility to emit carbon monoxide (CO) and hazardous air pollutant (HAP) at levels that make the facility a major source under Part 70 and Part 63. Tennant subsequently added a powder coating system as an insignificant modification under Minn. R. 7007.1250, subp. 1(B). In the application received on September 17, 2004, Tennant proposed to remove the touch-up spray booth (EU 008), add the powder coating system to the permit, and accept a lower limit on engine testing (GP 002) gasoline usage. The effect of these changes along with the addition of enforceable limits on HAP emissions at the existing wet spray booths (GP 001) will be a reduction of the facility's potential CO and HAP emissions so that it will no longer be a major source under Part 70 and Part 63. Amending existing permit conditions to allow a facility to avoid classification as a major source requires a major permit amendment pursuant to Minn. R. 7007.1500, subp. 1(C).

The proposed powder coating system consists of an application system, pre-wash system, dry-off oven, and cure oven. In their application, Tennant states that the powder coat application system is not vented and that the MSDSs and coating vendors indicate that the powder coatings do not contain VOCs or HAP. The pre-wash system and dry-off oven qualify as insignificant activities under Minn. R. 7007.1300, subp. 3(I) and are included in Appendix I of the permit. The powder coat cure oven does not qualify as an insignificant activity and is included as a new emission unit (EU 029)

Tennant's previous permit authorized the installation of a new engine testing area (EU 023). The authorization to install this unit has been eliminated. However, this permit authorizes Tennant to install 5 additional engine testing areas with a maximum of 7 drops per area. No emission unit numbers will be assigned at this time, the emission unit numbers will be assigned upon notification from the facility that they have been added.

With the facility switching from a Part 70 permit to a state permit, the three make-up air units and the chemical repack operations may no longer be considered insignificant activities under Minn. R. 7007.1300, subp. 4. These existing units/activities have been removed from the list of insignificant activities and have been added to the permit as emission units (EU 025, EU 026, EU 027, and EU 028).

1.4. Facility Emissions:

Table 1. Total Facility Permitted Potential to Emit Summary

Pollutants	Boilers (tpy)	Engine Testing (tpy)	Coating and Booths (tpy)	Air Make- Up Units (tpy)	Powder Coat Oven (tpy)	Total Facility (tpy)
PM	1.3	0.5	17.2	0.3	0.3	19.6
PM10	1.3	0.5	17.2	0.3	0.3	19.6
NOx	35.0	9.1	0.0	4.4	3.3	51.8
SO2	3.1	0.5	0.0	0.0	0.0	3.6
CO	14.7	69.0	0.0	3.7	2.8	90.2
VOC	1.0	4.5	80.0	0.2	0.2	85.9
Single HAP	0.3	0.0	8.0	0.1	0.1	8.5
Total HAPs	0.3	0.0	23.0	0.1	0.1	23.5

Table 2. Potential to Emit Including Insignificant Activities

	PM	PM10	NOx	SO2	VOC	CO	Single HAP	Total HAP
Permitted Units PTE (tpy)	19.6	19.6	51.8	3.6	85.9	90.2	8.5	23.5
Insignificant Activities PTE (tpy)	.3	.3	5.2	.1	.9	3.9	0.5	0.5
Total PTE	19.9	19.9	57.0	3.7	86.8	94.1	9.0	24.0

Table 3. Facility Classification

Classification	Major/Affected Source	*Synthetic Minor	*Minor
PSD		VOC, PM/PM10, CO, and NOx	SO2
Part 70 Permit Program		VOC, NOx, PM/PM10, CO, and HAPs	SO2
Part 63 NESHAP		X	

* Refers to PTE less than those specified as major by 40 CFR 52.21, 40 CFR pt. 70, and 40 CFR pt.63.

2. Regulatory and/or Statutory Basis

New Source Review (NSR)

The facility is an existing synthetic minor source under New Source Review regulations.

Part 70 Permit Program

The facility is a synthetic minor source under the Part 70 Permit Program.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility has accepted limits on HAP usage such that it is a non-major source under 40 CFR pt. 63. Thus, no NESHAPs apply.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0710 Standards of Performance for Pre-1969 Industrial Process Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 4. Regulatory Overview of Units Affected by the Modification/Permit Amendment

EU, GP, or SV	Applicable Regulations	Comments:
GP 001 (Spray Booths)	Title I limit to avoid Part 63 NESHAPs 40 CFR 52.21	Limit set on HAPs emissions from painting operations to avoid major source classification under 40 CFR § 63. Prevention of Significant Deterioration (PSD). Limits taken to avoid major source and modification classification under PSD for all noncombustion emissions of VOC. It is a rolling limit due to substantial and unpredictable variations in operation. The permit requires that all painting operations be controlled by specific control equipment (see GP 004).
	Minn. R. 7007.0800, Subp. 2	Transfer efficiency requirements for spray guns. The permit requires that all guns meet the transfer efficiencies used in the permit application (and used in writing the permit). Needed to meet the Standards of Performance for both Pre and Post 1969 Industrial Process Equipment.
	Minn. R. 7011.0710 and 7011.0715	Standards of Performance for both Pre-1969 and Post-1969 Industrial Process Equipment. Two of the spray booths are subject to the Pre-1969 standard, while three are subject to the Post-1969 standard.
GP 002	Title I limit to avoid classification as major source and modification under 40 CFR Section 52.21 and 40 CFR Section 70 and Minn. R. 7007.0200.	Limit of fuel use of 20,000 gal/yr of Gasoline, decreased to 16,300 gal/yr in order to limit total facility CO emissions to below 100 tons per year including insignificant activities. Limits on LP gas and Diesel fuel remain unchanged at 20,000 gal/yr.
	40 CFR 52.21	Prevention of Significant Deterioration (PSD). Limits taken to avoid major source and modification classification under PSD for fuels combusted in the engine testing areas. The fuel limits are rolling limits due to substantial and unpredictable variations in operation.
	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines.

EU, GP, or SV	Applicable Regulations	Comments:
GP 003 (boilers)	Minn. R. 7011.0510	Standards of Performance for Pre-1977 Indirect Heating Equipment. This group consists of 4 boilers that burn natural gas and propane only.
GP 004 (panel filters)	40 CFR 52.21	PSD. Control efficiency and other operating parameter requirements to limit PM/PM10 PTE to avoid major source and modification classification under PSD and to meet Minnesota Standards of Performance (Minn. R. 7011.0715).

3. Technical Information

3.1 Calculations of Potential to Emit

Attachment 1 to this TSD contains facility specific PTE calculation spreadsheets, while attachment 2 to this TSD contains detailed emission unit calculations.

3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

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

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 5 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 5. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
VOC Usage Limits: GP 001	<p>VOC \leq 80 tons per year (limit to avoid major source under NSR)</p> <p>PM/PM10: All booths required to be controlled by panel filters in GP 004 (limits to avoid NSR + meet Minn. R. 7011.0715)</p> <p>Gun transfer efficiency limits of 75% and 40% for various booths</p> <p>HAP Limit: Individual \leq 8.00 tons per year; Total \leq 23.00 tons per year. (limit to avoid major source under 40 CFR Section 70, Minn. R. 7007.0200, 40 CFR Section 63.2, and Minn. R. 7011.7000)</p>	<p>Recordkeeping: Daily records of VOC and HAP containing coating and cleaning solvent containers opened.</p> <p>See GP 004 for monitoring</p> <p>Recordkeeping of guns and transfer efficiency</p> <p>Recordkeeping and emissions calculations</p>	<p>Daily records required because limit is greater than 50% of the Part 70 major source threshold. Emission calculations to be performed monthly.</p> <p>This limit is needed in order for the PTE calculations to be less than allowed by the Minnesota Industrial Process Equipment Rule. These calculations are very conservative (assume maximum solids sprayed for a full hour), so recordkeeping is adequate to ensure the limit is met.</p> <p>HAP Limits are required in order for facility to avoid major source classification under said rules. Calculations are to be performed monthly for the previous 12-month period.</p>

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
Engine Exhaust Areas: GP 002 (EU 009-021 and 023)	Diesel Fuel \leq 20,000 gal/yr Gasoline \leq 16,300 gal/yr Propane \leq 20,000 gal/yr SO ₂ \leq .5 lb/MMBtu Opacity \leq 20% with exceptions (Minn. R. 7011.2300)	Recordkeeping: Monthly Fuel records	Limits are significantly under the equivalent applicable regulatory threshold, so monthly records are adequate.
Boilers: GP 003	PM: \leq 0.4 lb/MMBtu Opacity: \leq 20 % with exceptions (Minn. R. 7011.0510)	Recordkeeping: Monthly Fuel records	These units use natural gas and propane only; therefore, the likelihood of violating either of the emission limits is very small. The permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning natural gas. Design based PTE, using AP-42, is 0.0072 compared to the rule limit.
Paint Filters: GP 004 (CE 001-005)	PM/PM ₁₀ : Control Efficiency of 74% (limit to avoid NSR + Minn. R. 7011.0715)	Recordkeeping, O & M Plan, Inspections	Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.

3.3 Insignificant Activities

Tennant Company has several operations which are classified as insignificant activities. These are listed in Appendix 3 to the permit.

3.4 Permit Organization

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One item that deviates from guidance is the listing of certain applicable requirements at the group level even though they apply at the individual unit or control device. Specifically, the stationary internal combustion engine rule is listed at GP 002, indirect heating rule is listed at GP 003, the industrial process equipment rule (IPER) is listed at GP 001, and control equipment requirements are at GP 004.

In general, limits that apply to individual pieces of equipment should be tracked at the unit level and should not be listed as a GP. The main reason is if there is noncompliance with a limit by one unit within the group, the computer system would say the whole group was out of compliance. This is a computer tracking issue.

For the IPER, the internal combustion engine rule, and the indirect heating rule, the units by design are not likely to violate the limits. For the control equipment at GP 004, these are fairly standard conditions based on Minnesota rules. For all of the grouped requirements, it is unlikely that we would need to track noncompliance with these limits at the individual unit/control equipment level.

3.5 Comments Received

Public Notice Period: March 30, 2005 – April 28, 2005

No public comments were received during the public comment period. Similarly, no EPA comments were received during their concurrent review of the proposed permit issuance. However, Tennant Company provided comments (attached) on a preliminary draft of the permit prior to the beginning of the public comment period. Due to technical difficulties, these comments were not received until after the public comment period began; therefore, these comments were treated as though they were received during the public comment period. As a result of the comments, minor corrections and clarifying changes have been made to the TSD as well as permit conditions in CD-01 and associated Tables A and B. No changes to applicable requirements have been made.

4. Conclusion

Based on the information provided by Tennant Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300143-002 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Permit Engineer: Mark Eberley – HDR Engineering, Inc.

MPCA Staff on Permit Team: Steven Pak, Project Manager
Peggy Bartz, Peer Reviewer
Suzanne Venem, Enforcement

Attachments:

1. PTE Summary Calculations
2. Detailed Emission Unit Calculations
3. Insignificant Activities Calculations
4. Compliance Plan (CD-01)
5. Tennant Comments

Attachment 1
PTE Summary Calculations

Attachment 2
Detailed Emission Unit Calculations

Attachment 3
Insignificant Activities Calculations

Attachment 4
Compliance Plan (CD-01)

Attachment 5
Tennant Comments