

AIR EMISSION PERMIT NO. 05300146- 001

IS ISSUED TO

Honeywell International, Inc.
101 Columbia Road
Morristown, New Jersey 07962

For

Honeywell – Home and Building Controls
1985 Douglas Drive North
Golden Valley, Hennepin County, MN 55422

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

Permit Type	Application Date
Total Facility Operating Permit	June 15, 1995, supplemented February 14, 2001

This permit authorizes the Permittee to 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: Federal ; Part 70/Limits to avoid NSR

Issue Date: August 13, 2001

Expiration: August 13, 2006

All Title I Conditions do not expire.

Richard J. Sandberg, Manager
Major Facilities Section
Metro District

For Karen A. Studders
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. chs. 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 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:

Honeywell's Home & Building Control manufactures a variety of products, including controls for heating, ventilating, humidification and air conditioning; thermostats; heaters and fans; lighting controls and security products; burner/boiler and combustion controls; thermostatic radiator valves; water flow valves and systems; and home security and utility services. The primary sources of emissions at the facility are the gas fired boilers and the spray paint operations. Particulate matter emissions from the spray painting operation are controlled by panel filters. Other emission sources at the facility include a varnish coating and curing operation, a toluene bath operation, a vapor degreaser, and several insignificant activities. The facility is a non-major source under the federal New Source Review program, by virtue of federally enforceable limits on VOC usage.

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

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
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)
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
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. 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.	Minn. R. 7019.1000, subp. 3
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. 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.	Minn. R. 7019.1000, subp. 2
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

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

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
The Permittee may be required to submit a Risk Management Plan (RMP) under the federal rule, 40 CFR pt. 68. Each owner or operator of a stationary source, at which a regulated substance is present above a threshold quantity in a process, shall design and implement an accidental release prevention program. A complete RMP must be submitted to the RMP Reporting Center, PO Box 3346, Merrifield, VA 22116. RMP submittal information may be obtained at http://www.epa.gov/swercepp or by calling 1-800-424-9346. These requirements must be complied with no later than the latest of the following dates: (1) June 21, 1999; (2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or (3) The date on which a regulated substance is first present above a threshold quantity in a process.	40 CFR pt. 68

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

Subject Item: GP 001 VOC Usage Limit - Painting Booths/Curing Ovens

Associated Items: EU 008 Auto-spray line (B-56)
 EU 009 Auto-spray line (B-59)
 EU 011 Auto-spray line oven
 EU 012 Auto-spray line (B-55)
 EU 013 Auto-spray line (B-58)
 EU 014 Auto-spray line oven
 EU 028 Hand spray (touch up)
 EU 029 Oven

What to do	Why to do it
EMISSION/USAGE LIMITS	hdr
VOC Usage: less than or equal to 55 tons/year using 12-month Rolling Sum . VOC content shall be determined as described in the Material Content requirement of this section. All sources listed in GP001 shall be included in the 12-month rolling sum. The 12-month rolling sum shall be calculated as described in this permit.	Title I Condition: Limit to avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000
RECORDKEEPING REQUIREMENTS	hdr
Material Content: VOC contents of raw materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. The Permittee shall obtain a certification from the supplier as to the accuracy of the MSDS. If the MSDS provides a material content range, the highest number in the range shall be used for all calculations. Other alternative methods approved by the MPCA may be used to determine the VOC content. The MPCA reserves the right to require the Permittee to take samples of VOC containing materials and to conduct analysis for VOC as per EPA and ASTM reference methods. If the EPA or ASTM reference method is used, it shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4
Monthly Recordkeeping -- VOC Emissions By the 15th of each month, the Permittee shall calculate and record the following: 1. The total quantity of all VOC and HAP containing materials used in the units listed in GP001. 2. The VOC content of each VOC containing material used in the previous month, as determined by the Material Content requirement of this section. 3. The VOC usage for the previous month using the formulas specified in this section. 4. The 12-month rolling sum of VOC usage from the previous 12 months, by summing the monthly VOC emissions calculated from the previous 12 months.	Title I Condition: Recordkeeping of limit assumed to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and subp. 5
Monthly Calculations -- VOC Emissions The Permittee shall calculate VOC emissions from GP001 using the following equation: $\text{VOC} = [\text{MAT}(1) \times \text{V}(1)] + [\text{MAT}(2) \times \text{V}(2)] + [\text{MAT}(3) \times \text{V}(3)] + \dots \text{etc.}$ Where: VOC = VOC usage, in tons per month MAT(#) = Amount of VOC-containing material used, in tons/month V(#) = The weight-percent VOC in the material (e.g., if the weight percent of VOC in MAT(2) is 85%, V(2) = 0.85) The 12-month rolling sum is calculated monthly by summing the monthly totals from the previous 12 months.	Minn. R. 7007.0800, subp. 4 and subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

Subject Item: GP 002 VOC Usage Limit - Wave Soldering

Associated Items: EU 017 Wave solder - MST
 EU 018 Wave solder BB&P-RA8184
 EU 019 Wave solder BB&P-R8182
 EU 020 Wave solder BB&P-L8124
 EU 021 Wave solder BB&P-RA890
 EU 022 Wave solder CW-R89
 EU 023 Wave solder CW-RA
 EU 024 Wave solder - MA
 EU 025 Wave solder - MOD IV

What to do	Why to do it
EMISSION/USAGE LIMITS	hdr
VOC Usage: less than or equal to 55 tons/year using 12-month Rolling Sum . VOC content shall be determined as described in the Material Content requirement of this section. All sources listed in GP002 shall be included in the 12-month rolling sum. The 12-month rolling sum shall be calculated as described in this permit.	Title I Condition: Limit to avoid classification as a major source under 40 CFR Section 52.21 and Minn. R. 7007.3000
OPERATIONAL REQUIREMENTS	hdr
Material Content: VOC contents of raw materials shall be determined by the Material Safety Data Sheet (MSDS) provided by the supplier for each material used. The Permittee shall obtain a certification from the supplier as to the accuracy of the MSDS. If the MSDS provides a material content range, the highest number in the range shall be used for all calculations. Other alternative methods approved by the MPCA may be used to determine the VOC content. The MPCA reserves the right to require the Permittee to take samples of VOC containing materials and to conduct analysis for VOC as per EPA and ASTM reference methods. If the EPA or ASTM reference method is used, it shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4
RECORDKEEPING REQUIREMENTS	hdr
<p>Monthly Recordkeeping -- VOC Emissions</p> <p>By the 15th of each month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1. The total quantity of all VOC and HAP containing materials used in the units listed in GP002. 2. The VOC content of each VOC containing material used in the previous month, as determined by the Material Content requirement of this section. 3. The VOC usage for the previous month using the formulas specified in this section. 4. The 12-month rolling sum of VOC usage from the previous 12 months, by summing the monthly VOC emissions calculated from the previous 12 months. 	Title I Condition: Recordkeeping for limit assumed to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and subp. 5
<p>Monthly Calculations -- VOC Emissions</p> <p>The Permittee shall calculate VOC emissions from GP002 using the following equation:</p> $\text{VOC} = [\text{MAT}(1) \times \text{V}(1)] + [\text{MAT}(2) \times \text{V}(2)] + [\text{MAT}(3) \times \text{V}(3)] + \dots \text{etc.}$ <p>Where: VOC = VOC usage, in tons per month MAT(#) = Amount of VOC-containing material used, in tons/month V(#) = The weight-percent VOC in the material (e.g., if the weight percent of VOC in MAT(2) is 85%, V(2) = 0.85)</p> <p>The 12-month rolling sum is calculated monthly by summing the monthly totals from the previous 12 months.</p>	Minn. R. 7007.0800, subp. 4 and subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

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

EU 004 Boiler #4

EU 005 Boiler #5

EU 006 Boiler #6

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 individually to each boiler listed in GP003. (The potential emissions of each boiler at maximum capacity is approximately 0.01 lb/MMBtu heat input.)	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 individually to each boiler listed in GP003.	Minn. R. 7011.0510, subp. 2
Fuel Usage: Limited to natural gas or propane only.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

Subject Item: GP 004 Generator Requirements**Associated Items:** EU 015 Fire pump

EU 016 Backup Generator

EU 026 Backup Generator

What to do	Why to do it
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . This limit applies individually to each unit listed in GP004. [Equipment capacity does not exceed the limit.]	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained. This limit applies individually to each unit listed in GP004.	Minn. R. 7011.2300, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

Subject Item: GP 005 Fuel-Fired Oven Requirements**Associated Items:** EU 014 Auto-spray line oven

EU 030 Varnish dip curing oven

What to do	Why to do it
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 individually to each unit listed in GP005.	Minn. R. 7011.0610, subp. 1(A)(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 individually to each unit listed in GP005.	Minn. R. 7011.0610, subp. 1(A)(2)

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

Subject Item: GP 006 Spray Booth Requirements**Associated Items:** EU 008 Auto-spray line (B-56)

EU 009 Auto-spray line (B-59)

EU 012 Auto-spray line (B-55)

EU 013 Auto-spray line (B-58)

EU 028 Hand spray (touch up)

What to do	Why to do it
EMISSION LIMITS	hdr
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 individually to each unit listed in GP006. At maximum capacity of the booths, the limits and controlled stack emissions are as follows: Limit Controlled Stack Emissions EU008 7.09 lb/hr 5.51 lb/hr EU009 7.09 lb/hr 5.51 lb/hr EU012 7.09 lb/hr 5.51 lb/hr EU013 7.09 lb/hr 5.51 lb/hr EU028 2.99 lb/hr 2.24 lb/hr	Minn. R. 7011.0710, subp. 1(A)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0710, subp. 1(B)
CONTROL REQUIREMENTS	hdr
Total Particulate Matter: greater than or equal to 79 percent control efficiency (based on 80% capture efficiency and 92% collection efficiency) See GP007 for specific operating and maintenance requirements.	Minn. R. 7007.0800, subp. 4, 5, and 14 (control required to meet Minn. R. 7011.0710 limits)
Particulate Matter < 10 micron: greater than or equal to 79 percent control efficiency (based on 80% capture efficiency and 92% collection efficiency) See GP007 for specific operating and maintenance requirements.	Minn. Stat. 116.07, subd. 4a; Equipment used under Minn. R. 7019.3020(F)

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

Subject Item: GP 007 Control Equipment Requirements**Associated Items:** CE 001 Mat or Panel Filter

CE 002 Mat or Panel Filter

CE 003 Mat or Panel Filter

CE 004 Mat or Panel Filter

CE 005 Mat or Panel Filter

What to do	Why to do it
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
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.	Minn. R. 7007.0800, subp. 4, 5, and 14
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications or outlined in the O & M Plan, 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 replacement of the filter and/or 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
Hood Certification and Evaluation: Each 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

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

Subject Item: EU 007 Vapor Degreaser**Associated Items:** SV 015 Vapor degreaser

What to do	Why to do it
EMISSION LIMITS or EMISSION CONTROL REQUIREMENTS	hdr
Operate the degreaser with a reduced room draft as described in Section 63.464(e)(2)(ii).	40 CFR Section 63.463(a)(1)(ii); Minn. R. 7011.7200
The degreaser must have a freeboard ratio of 0.75 or greater.	40 CFR Section 63.463(a)(2); Minn. R. 7011.7200
The degreaser must have an automated parts handling system capable of moving parts or parts baskets at a speed of 11 feet per minute or less from the initial loading of parts through removal of cleaned parts.	40 CFR Section 63.463(a)(3); Minn. R. 7011.7200
The degreaser must be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.	40 CFR Section 63.463(a)(4); Minn. R. 7011.7200
The degreaser must be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.	40 CFR Section 63.463(a)(5); Minn. R. 7011.7200
The degreaser must be equipped with a primary condenser.	40 CFR Section 63.463(a)(6); Minn. R. 7011.7200
Idling Emission Limit: 0.045 pounds per hour per square foot of solvent/air interface area as determined using the procedures in 40 CFR Section 63.465(a) and Appendix A of the standard.	40 CFR Section 63.463(b)(2)(ii); Minn. R. 7011.7200
Control air disturbances across the degreaser opening(s) by using a reduced room draft as described in Section 63.463(e)(2)(ii).	40 CFR Section 63.463(d)(1)(ii); Minn. R. 7011.7200
The parts basket or the parts being cleaned shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 3 feet per minute or less.	40 CFR Section 63.463(d)(2); Minn. R. 7011.7200
Any spraying operations shall be done within the vapor zone or within a section of the degreaser that is not directly exposed to the ambient air.	40 CFR Section 63.463(d)(3); Minn. R. 7011.7200
Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from the degreaser unless an equally effective approach has been approved by the Administrator.	40 CFR Section 63.463(d)(4); Minn. R. 7011.7200
Parts baskets or parts shall not be removed from the degreaser until dripping has stopped.	40 CFR Section 63.463(d)(5); Minn. R. 7011.7200
During startup of the degreaser, the primary condenser shall be turned on before the sump heater.	40 CFR Section 63.463(d)(6); Minn. R. 7011.7200
During shutdown of the degreaser, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.	40 CFR Section 63.463(d)(7); Minn. R. 7011.7200
When solvent is added or drained from the degreaser, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.	40 CFR Section 63.463(d)(8); Minn. R. 7011.7200
The degreaser and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturer.	40 CFR Section 63.463(d)(9); Minn. R. 7011.7200
If requested during an inspection, each operator of the degreaser shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in Appendix B of 40 CFR Section 63, subpart T.	40 CFR Section 63.463(d)(10); Minn. R. 7011.7200
Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.	40 CFR Section 63.463(d)(11); Minn. R. 7011.7200
Sponges, fabric, wood, and paper products shall not be cleaned in the degreaser.	40 CFR Section 63.463(d)(12); Minn. R. 7011.7200
OPERATING/MONITORING/TESTING REQUIREMENTS	hdr
IDLING EMISSION LIMIT - OPERATION	40 CFR Section 63.463(f)(3); Minn. R. 7011.7200
Operate the solvent cleaning machine within the parameters identified in the initial performance test.	
IDLING EMISSION LIMIT - MONITORING	40 CFR Section 63.463(f)(1)(ii); 40 CFR Section 63.463(f)(2); 40 CFR Section 463(f)(4); Minn. R. 7011.7200
Establish the parameters that will be monitored to demonstrate continued compliance with the idling emission limit following the initial performance test. Conduct the periodic monitoring of the parameters as described in 40 CFR Section 63.466(f).	
If any requirement is not met, determine if an exceedance has occurred using the criteria of Section 63.463(f)(4).	

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

<p>REDUCED ROOM DRAFT -- OPERATION</p> <p>Ensure that the flow or movement of air across the top of the freeboard area of the degreaser or within the degreaser enclosure does not exceed 50 feet per minute at any time. Establish and maintain the operating conditions under which the wind speed was determined to be 50 feet per minute or less, as described in 40 CFR Section 63.466(d).</p> <p>If any requirement is not met, determine if an exceedance has occurred using the criteria of Section 63.463(e)(3).</p>	<p>40 CFR Section 63.463(e)(2)(ii); 40 CFR Section 63.463(e)(3); Minn. R. 7011.7200</p>
<p>REDUCED ROOM DRAFT -- MONITORING</p> <p>Conduct monitoring and record results as specified in (1) or (2) below:</p> <p>(1) If reduced draft is maintained by controlling room parameters (redirecting fans, closing doors/window, etc.) conduct an initial monitoring test of the windspeed and room parameters, quarterly monitoring of windspeed, and weekly monitoring of room parameters, as specified in Section 63.466(d)(1)(i) and (d)(1)(ii).</p> <p>(2) If reduced draft is maintained by a full or partial enclosure, conduct an initial monitoring test and monthly monitoring of the windspeed within the enclosure using the procedure specified in Section 63.466(d)(2)(i) and (d)(2)(ii), and monthly visual inspections of the enclosure to determine if it is free of cracks, holes, and other defects.</p>	<p>40 CFR Section 63.466(d); Minn. R. 7011.7200</p>
<p>RECORDKEEPING REQUIREMENTS</p>	<p>hdr</p>
<p>Maintain the following records in written or electronic form, for the lifetime of the degreaser:</p> <p>(1) Owner's manuals, or if not available, written maintenance and operating procedures, for the degreaser and control equipment.</p> <p>(2) The date of installation for the degreaser and all of its control devices. If the exact date of installation is not known, a letter certifying that the cleaning machine and its control devices were installed on, prior to, or after November 29, 1993, may be substituted.</p> <p>(3) (not applicable)</p> <p>(4) Records of the initial performance test, including the idling emission rate and values of the monitoring parameters measured during the test.</p> <p>(5) Records of the halogenated HAP solvent content for each solvent used in the machine.</p>	<p>40 CFR Section 63.467(a); Minn. R. 7011.7200</p>
<p>Maintain the following records, in written or electronic form, for a period of 5 years:</p> <p>(1) The results of any required control device monitoring.</p> <p>(2) Information on the actions taken to comply with the applicable requirements of Sections 63.463(e) or (f), including records or written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.</p> <p>(3) Estimates of annual solvent consumption for each degreaser.</p>	<p>40 CFR Section 63.467(b); Minn. R. 7011.7200</p>

TABLE B: SUBMITTALS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg
Permit Number: 05300146 - 001

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: ONE TIME SUBMITTALS OR NOTIFICATIONS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Request for Information Response	due 1,096 days after Permit Issuance. Submit modeling data for NOX sources, as specified in MPCA guidance for Modeling Information Requests. This modeling information is for data collection purposes only, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility

TABLE B: RECURRENT SUBMITTALS

08/13/01

Facility Name: Honeywell - Golden Valley - Home & Bldg

Permit Number: 05300146 - 001

What to send	When to send	Portion of Facility Affected
Report	<p>due 31 days after end of each calendar half-year starting 12/02/1997 (Exceedance Report), unless a different frequency is required as described in 40 CFR Section 63.468(h) or (i). The exceedance report shall include:</p> <p>(1) Information on the actions taken to comply with 40 CFR Section 63.463(e) and (f), including records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.</p> <p>(2) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.</p> <p>(3) If no exceedances have occurred, or if a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.</p>	EU007
Semiannual Deviations Report	<p>due 30 days after end of each calendar half-year following Permit Issuance. 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.</p>	Total Facility
Compliance Certification	<p>due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.</p>	Total Facility
Report	<p>due 31 days after end of each calendar year starting 12/02/1997. Report must include the following:</p> <p>(1) A signed statement from the facility owner or his designee stating that "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 40 CFR Section 63.463(d)(10)."</p> <p>(2) An estimate of solvent consumption for each degreaser during the reporting period.</p>	EU007

APPENDIX B**Facility Name:** Honeywell - Golden Valley - Home & Building Control**Permit Number:** 05300146-001**Insignificant Activities and Applicable Requirements**

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(A)	Fuel use: space heaters fueled by, kerosene, natural gas, or propane. <ul style="list-style-type: none">• Facility operates natural gas fired space heaters	Minn. R. 7011.0510/0515
3(B)	Furnaces, boilers, and incinerators: 2. fuel burning equipment with a capacity less than 500,000 Btu/hour but only if the total combined capacity of all fuel burning equipment at the stationary source with a capacity less than 500,000 Btu per hour is less than or equal to 2,000,000 Btu/hour. <ul style="list-style-type: none">• Small heat treating and curing ovens totaling <2 MMBtu/hr	Minn. R. 7011.0510/0515
3(D)	Processing operations: 2. Equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM ₁₀) inside a building, provided that emissions from the equipment are: a). filtered through an air cleaning system; and b). vented inside of the building 100% of the time. <ul style="list-style-type: none">• Machining operations for metal and plastic parts, vented inside the building 100% of the time	Minn. R. 7011.0710/0715
3(E)	Storage tanks: 2. non-hazardous air pollutant VOC storage tanks with a combined total tankage capacity of not more than 10,000 gallons of non-hazardous air pollutant VOCs and with a vapor pressure of not more than 1.0 psia at 60 degrees Fahrenheit. <ul style="list-style-type: none">• One 5,000 gallon waste oil storage tank	Minn. R. 7011.1505
3(G)	Emissions from a laboratory, as defined in the subpart. <ul style="list-style-type: none">• Facility operates a laboratory in which they test controls on customer-supplied equipment	Minn. R. 7011.0510/0515, and/or Minn. R. 7011.0610, and/or Minn. R. 7011.0710/0715

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(H)	Miscellaneous:	
	4. brazing, soldering or welding equipment; <ul style="list-style-type: none"> • Facility operates brazing soldering, and welding operations (excludes wave solderers, which are included in Table A of the permit) 	7011.0710/0715
	5. blueprint copiers and photographic processes; <ul style="list-style-type: none"> • Facility operates blueprint copiers 	Minn. R. 7011.0105/0110
3(I)	Individual emissions units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than: <ol style="list-style-type: none"> 1. 4,000 lbs/year of carbon monoxide; and 2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone. <ul style="list-style-type: none"> • Powdered paint booth operation, actual VOC emissions of approximately 311 pounds per year (this is also insignificant under subpart 3(D), since filtered PM emissions are exhausted inside 100% of the time.) • Heat treating and quenching equipment, total emissions for all units 214 lb NO_x/year and 5.4 lb VOC/year 	Minn. R. 7011.0710/0715 Minn. R. 7011.0710/0715
3(J)	Fugitive Emissions from roads and parking lots. <ul style="list-style-type: none"> • Paved parking lots 	Minn. R. 7011.0150

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
4(B)	<p>Emission units with potential emissions of 2.28 pounds per hour or actual emissions of one ton per year for particulate matter, PM₁₀, nitrogen oxide, sulfur dioxide, and VOCs</p> <ul style="list-style-type: none"> Emissions from machining metal and plastic parts, which are vented outside. Uncontrolled actual emissions of these units is <1 ton per year. Epoxy compound usage – actual VOC usage of 11 pounds/year Zinc plating operation, actual PM emissions of 18 pounds per year Wastewater treatment unit, actual VOC emissions 1.0 x 10⁻⁵ ton/year, PM emissions <<1 tpy. Miscellaneous painting operations, using spray cans and gallon containers, actual usage 1 gallon of paint, 36 pounds of paint cans, for actual VOC usage of 46 pounds per year, worst case Two 4 MMBtu/hour boilers and one 1.4 MMBtu/hour boiler, each with potential emissions less than 2.28 pounds per hour for all pollutants. Aluminum die cast operations - actual emissions are less than the applicable threshold for each pollutant. Zinc die case operations – actual emissions are less than the applicable threshold for each pollutant. 	<p>Minn. R. 7011.0710/0715</p> <p>Minn. R. 7011.0710/0715</p> <p>Minn. R. 7011.0710/0715</p> <p>Minn. R. 7011.0710/0715</p> <p>Minn. R. 7011.0710/0715</p> <p>Minn. R. 7011.0510/0515</p> <p>Minn. R. 7011.0710/0715</p> <p>Minn. R. 7011.0610</p>
4(C)(1)	<p>Emission units with potential emission of 25% or less of the hazardous air pollutant thresholds listed in subpart 5</p> <ul style="list-style-type: none"> One 1,000 gallon methanol storage tank. Potential emissions calculated (using TANKS program) to be 125.1 pounds per year, or approximately 0.6% of the 10 ton per year threshold listed in subpart 5. 	<p>Minn. R. 7011.1505</p>
4(C)(2)	<p>Emission units with combined HAP actual emissions of one ton per year unless the unit emits one or more of a list of HAPs listed in the subpart</p> <ul style="list-style-type: none"> Plastic injection molding units – total actual styrene usage is roughly 200 pounds per year, less than one ton (styrene is not one of the HAPs listed in the subpart) 	<p>Minn. R. 7011.0710/0715</p>

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 05300146-001

This technical support document is intended for all parties interested in the permit. The purpose of this document is to set forth the legal and factual basis for the permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number	Facility Address (SIC Code: 3822)
Owner: Honeywell International, Inc. 101 Columbia Road Morristown, NJ 07962	Honeywell – Home & Building Control 1985 Douglas Drive North Golden Valley, Hennepin County, MN Contact: Greg Weisjahn (763)954-4732

1.2. Description of the facility

Honeywell's Home & Building Control manufactures a variety of products, including controls for heating, ventilating, humidification and air conditioning; thermostats; heaters and fans; lighting controls and security products; burner/boiler and combustion controls; thermostatic radiator valves; water flow valves and systems; and home security and utility services. The primary sources of emissions at the facility are the gas fired boilers and the spray paint operations. Particulate matter emissions from the spray painting operation are controlled by panel filters. Other emission sources at the facility include a varnish coating and curing operation, a toluene bath operation, a vapor degreaser, and several insignificant activities. The facility is a non-major source under the federal New Source Review program, by virtue of federally enforceable limits on VOC usage.

1.3 Description of any changes allowed with this permit issuance - None

1.4 Description of all amendments issued since the issuance of the last total facility permit and to be included in the Part 70 Permit - None

1.5 Description of changes made to the permit since start of public notice period

The requirement to remove or dismantle the fuel oil storage tank, and to notify MPCA upon completion, were removed from the permit. These were completed before issuance of the permit.

1.6. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	8.5	8.5	0.6	106.5	41.0	178.8	55.0	111.5
Total Facility Actual Emissions ¹	0.63	0.63	0.04	8.35	6.44	19.67	NR ²	NR

¹ Actual Emissions from 1998 Emission Inventory

² NR = Not Reported (HAP emissions are not required to be reported in the emission inventory)

Table 2. Facility and Permit Classification

Classification	Major/Affected Source	*Synthetic Minor	*Minor
PSD		Yes (VOC, PM, PM ₁₀)	
Part 70	Yes (NO _x , VOC, HAPs)		

* Refers to potential emissions that are less than those specified as major by 40 CFR 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

2. Regulatory Overview of Facility

New Source Review

The facility is a non-major source under NSR (40 CFR 52.21) by virtue of federally enforceable limits on the usage of VOC. The VOC usage limit also inherently limits the PM/PM₁₀ emissions to below major source thresholds.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program (40 CFR 70.2). Permitted NO_x and VOC emissions exceed 100 tons per year, single HAP emissions exceed 10 tpy, and combined HAP emissions exceed 25 tpy.

New Source Performance Standards

The facility is not subject to any New Source Performance Standards (40 CFR Section 60).

National Emission Standards for Hazardous Air Pollutants

The facility operates a vapor degreaser that is subject to 40 CFR Section 63, Subpart T, National Emission Standards for Halogenated Solvent Cleaning.

Minnesota Standards of Performance

Portions of the facility are subject to the following Minnesota Standards of Performance (Minn. R. ch. 7011):

- Minn. R. 7011.0510, Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0610, Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.0710 (0715), Standards of Performance for Pre(Post)-1969 Industrial Process Equipment
- Minn. R. 7011.2300, Standards of Performance for Stationary Internal Combustion Engines

Table 3. Regulatory Overview

Item	Applicable Regulations	Comments
GP001, GP002	Title I Conditions to avoid 40 CFR 52.21	Synthetic minor limits set on VOC usage to avoid NSR. VOC usage limit also limits the overall PM/PM10 emissions possible.
GP003	Minn. R. 7011.0510	Standards of Performance for Existing Indirect Heating Equipment
GP004	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines
GP005	Minn. R. 7011.0610	Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
GP006, GP007	Minn. R. 7011.0710	Standards of Performance for Pre-1969 Industrial Process Equipment. Use of control equipment required to meet the standard.
EU007	40 CFR 63, Subpart T	National Emission Standards for Halogenated Solvent Cleaning

3. Technical Information

3.1 Calculations

Complete results of all calculations are shown in Attachment 1.

Boiler calculations were done using equipment capacity and AP-42 emission factors for the allowed fuels.

Generator calculations were done using equipment capacity and AP-42 emission factors for the allowed fuel. Annual PTE is based on 500 hours per year of operation, as allowed by the EPA Memo titled "Calculating Potential To Emit (PTE) For Emergency Generators," September 6, 1995.

Emissions from the paint spraying and curing operations were done using a mass balance based on the material chemistry and the spray gun capacity. Maximum hourly and annual VOC and PM emissions were based on the sprayed material containing the highest VOC content and the highest PM content, respectively. Annual allowed VOC emissions are based on the limit of 55 tons per year of VOC usage, as proposed by the Permittee. The maximum allowed annual PM

emissions were determined by assuming that the entire 55 tpy of VOC emissions were emitted through exclusive use of the sprayed material with the highest solids content (which is also the material with the lowest VOC content), and that the emissions are controlled by proper use of the panel filters, which are required in order for the emissions to meet the limits established by the Industrial Process Equipment Rule.

Emissions from the wave soldering equipment were estimated by the Permittee, assuming that all wave solder machines use VOC at the rate of the highest-VOC consuming machine. The annual VOC emissions are based on the 55 tpy usage limitation proposed by the Permittee.

Emissions from the toluene bath were calculated by the Permittee based on actual usage in 1994 (actual usage has decreased since that time.) Actual hourly usage was determined, then increased by a safety factor of 20%. This is considered a conservative estimate, since usage has actually decreased since 1994.

Emissions from the Varnish Dip operation were similarly calculated by the Permittee, by determining the actual usage in 1994, knowing that the equipment was operated at 40% of capacity. This estimated is considered conservative, because of the decrease in operation since 1994.

Emissions from the vapor degreaser were calculated using the idling emission rate required by the NESHAP. The emission rate has been tested and actual test results were used.

Calculation of Emissions of insignificant activities are described in Attachment 1, and in some cases addressed in Section 3.3.

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 considered the following:

- The likelihood of violating the applicable requirement;
- Whether add-on controls are necessary to meet the emission limit;
- 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.

Table 4 summarizes the periodic monitoring requirement for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 4 Monitoring Requirements

Subject Item	Emission Limit (basis)	Additional Monitoring	Discussion
GP001, GP002	VOC Usage limits: 55 tpy for each group (Title I limit to avoid being a major source under NSR)	Recordkeeping: VOC content of each material used, monthly calculation of VOC usage for the previous month and the previous 12 months	Based strictly on mass balance of VOC used.
GP003	PM, Opacity limits (Minn. R. 7011.0510)	None	Potential emissions of each boiler, based on AP-42 emission factors and equipment capacity, is approximately 3% of the applicable standard. Non compliance is unlikely.
GP004	SO₂ and opacity (Minn. R. 7011.2300)	None	Potential emissions based on equipment capacity and AP-42 are equal to or less than the applicable standard. However, testing is not considered necessary since the equipment is used on an emergency basis only. To test would require additional operation of the equipment, beyond the normal usage. To test during “normal” operation would require prediction of an emergency situation.
GP005	PM, opacity limits (Minn. R. 7011.0610)	None	PM emissions from these 2 MMBtu/hr burners combusting natural gas are insignificant. Noncompliance with the standard is unlikely.
GP006, GP007	PM, opacity limits (Minn. R. 7011.0710)	Daily inspection of filters	Worst-case controlled PM emissions based on mass balance and control efficiency of the panel filters (80% capture, 92% collection) are approximately 75% of the applicable limit. The control estimates are based on the control equipment rule (Minn. R. 7011.0070) which is intended to be conservative. Based on this and observation of the operation, non-compliance is unlikely and testing is not necessary.

Subject Item	Emission Limit (basis)	Additional Monitoring	Discussion
EU007	Work standards (40 CFR 63, Subpart T)	None	Subpart T provides for adequate monitoring.

3.3 Insignificant Activities

Insignificant Activities and applicable requirements are listed in Appendix A of the permit, and calculation methods are described in Attachment 1 to this document. While most of the insignificant activities are self-explanatory, a few items may require further comment:

Zinc plating operation – This includes some chromium tanks, which are included in the emission calculations completed by the Permittee’s consultant. Since the chromium tanks are chrome conversion tanks that do not use an electric current in the process, they are not subject to the chromium electroplating NESHAP.

Boilers – There are a few boilers listed as insignificant activities based on their hourly emissions (subpart 4). Since the potential emissions of the facility are well below the NSR thresholds, inclusion or exclusion of the emissions from these “insignificant” boilers does not affect applicability.

Zinc and Aluminum die casting operations – Total actual emissions from the zinc die casting operation (one furnace, plus pouring/casting/cooling) are 0.33 tpy NO_x, 0.27 tpy CO, 0.25 tpyPM/PM₁₀, 0.044 tpy VOC, and 0.002 tpy SO₂ – all below the insignificant thresholds for actual emissions of Minn. R. 7007.1300, subp. 4(B). Actual emissions from the aluminum die casting operation (7 furnaces, plus pouring/casting/cooling) are 1.1 tpy PM, 1.0 tpy PM₁₀, 0.819 tpy VOC, 0.012 tpy SO₂, and 0.006 tpy NO_x – each unit is thus below the insignificant thresholds for actual emissions under Minn. R. 7007.1300, subp. 4(B).

Miscellaneous – There are several insignificant activities listed where the emission calculations were based on actual emissions, which in some cases were extrapolated to estimate annual potential emissions. Again, since the potential emissions of the facility are well below the NSR thresholds, and because the actual emissions of these sources are so small, there is little threat that inclusion or exclusion of these sources in the total PTE will affect applicability.

3.4 Deviation from Standard Recordkeeping Practice

Standard practice is to require daily recordkeeping when requiring a demonstration of compliance for usage limits. However, in this case, since the daily usage is small, it would have to be estimated by an operator. The facility already tracks usage using a monthly inventory. Since the VOC limit is 179 tpy, compared to the PSD threshold of 250 tpy, and the actual VOC emissions for 1998 were 20 tpy, it is unlikely that the less frequent recordkeeping would compromise their compliance status. Therefore, recordkeeping is required on a monthly basis.

3.5 Delta Organization

The format of this permit differs from the “traditional” format in that most limits and requirements are listed in the permit at the “group” level. The reason for this is to limit the length of the permit by eliminating multiple short pages containing identical information. Since testing is not being required, having the requirements on a group level will not affect trackability.

4. Conclusion

Based on the information provided by the Permittee, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300146-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Toni Volkmeier, Betsy Gates Randt

Attachments: 1. Calculations and PTE Summary
2. Facility Description and CD-01 Forms

Attachment 1

Calculations and PTE Summary

Attachment 2

Facility Description and CD-01 Forms