

**Air Individual Permit
Administrative Amendment
05301088-101**

Permittee: ALUDEC USA, Inc.
Facility name: ALUDEC USA, Inc.
9650 Valley View Road
Eden Prairie, MN 55344
Hennepin County

Operating permit issuance date: October 8, 2007

Expiration date: Non-expiring Permit

Administrative Amendment: September 16, 2021

Permit characteristics: State; Limits to avoid Part 70/ Limits to avoid NSR

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the submittals listed in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 05301088- 003 and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in the permit. 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.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

Signature: *Carolina Espejel-Schutt*

This document has been electronically signed.

for Steven S. Pak, P.E., Manager
Air Quality Permits Section
Industrial Division

for the Minnesota Pollution Control Agency

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1. Permit applications table

Title description	Application receipt date	Action number
State Permit	01/24/2006, supplemental submittals 5/10/2007 and 7/6/2007	05301088- 003
Administrative Amendment	04/28/2021	05301088-101

2. Where to send submittals

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

Chief Air Enforcement
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by Minn. R. 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 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

Send any application for a permit or permit amendment to:

Fiscal Services – 6th Floor
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 Document Coordinator notices of:

- a. Accumulated insignificant activities
- b. Installation of control equipment
- c. Replacement of an emissions unit, and
- d. Changes that contravene a permit term

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

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Or

Email a signed and scanned PDF copy to:

submitstacktest.pca@state.mn.us

(for submittals related to stack testing)

AQRoutineReport.PCA@state.mn.us

(for other compliance submittals)

(See complete email instructions in “Routine Air Report Instructions Letter” at

<http://www.pca.state.mn.us/nwqh472.>)

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3. Facility description

The ALUDEC USA Inc (Facility) is located at 9650 Valley View Road, Eden Prairie, Hennepin County, Minnesota.

ALUDEC USA, Inc. is a manufacturer of plastic product identifiers, including nameplates, decals, and decorative trim. Its clients primarily include automobile and large equipment manufacturers. The Facility consists of spray coating booths, roll coaters, screen presses, pad printing, plastic molding, storage silos, grinding, and small natural gas combustion sources (e.g., cure ovens, etc.). The Permittee also has several activities that qualify as insignificant activities under Minn. R. 7007.1300, subp. 3 (see Appendix A to the permit).

The main pollutants of concern from the Facility are volatile organic compounds, hazardous air pollutants, and particulate matter. The permit also contains requirements to control particulate emissions from the spray booths and grinders using panel and fabric filters.

4. Summary of subject items

SI ID: Description	Relationship type	Related SI ID: Description
TFAC 1: ALUDEC USA, Inc.		
ACTV 1: All IAs		
COMG 1: Industrial Process Equipment	has members	EQUI 3, EQUI 48, EQUI 49, EQUI 51, EQUI 52, EQUI 53, EQUI 54, EQUI 57, EQUI 59, EQUI 60, EQUI 61, EQUI 67, EQUI 72, EQUI 73, EQUI 74, EQUI 75, EQUI 76, EQUI 77, EQUI 78, EQUI 79, EQUI 80, EQUI 81, EQUI 82, EQUI 83, EQUI 84, EQUI 85, EQUI 86, EQUI 87, EQUI 88, EQUI 89, EQUI 90, EQUI 93, EQUI 94, EQUI 96, EQUI 100
COMG 2: Fabric Filters	has members	TREA 29
COMG 3: Ovens	has members	EQUI 92, EQUI 95, EQUI 97, EQUI 98
COMG 4: Panel Filters	has members	TREA 6, TREA 7, TREA 8, TREA 9, TREA 10, TREA 11, TREA 12, TREA 13, TREA 14, TREA 15, TREA 17, TREA 18, TREA 19, TREA 20, TREA 21, TREA 22, TREA 23, TREA 24, TREA 25, TREA 26, TREA 27, TREA 28
COMG 5: Spray Booths	has members	EQUI 22, EQUI 23, EQUI 24,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 25, EQUI 26, EQUI 27, EQUI 28, EQUI 29, EQUI 30, EQUI 31, EQUI 32, EQUI 33, EQUI 34, EQUI 35, EQUI 36, EQUI 37, EQUI 38, EQUI 39, EQUI 40, EQUI 41, EQUI 42, EQUI 43
COMG 6: Grinders	has members	EQUI 14
COMG 7: Total Facility VOC and PM Limits	has members	EQUI 3, EQUI 5, EQUI 22, EQUI 23, EQUI 24, EQUI 25, EQUI 26, EQUI 27, EQUI 28, EQUI 29, EQUI 30, EQUI 31, EQUI 32, EQUI 33, EQUI 34, EQUI 35, EQUI 36, EQUI 37, EQUI 38, EQUI 39, EQUI 40, EQUI 41, EQUI 42, EQUI 43, EQUI 48, EQUI 49, EQUI 54, EQUI 57, EQUI 59, EQUI 60, EQUI 61, EQUI 67, EQUI 72, EQUI 73, EQUI 74, EQUI 75, EQUI 76, EQUI 77, EQUI 78, EQUI 79, EQUI 80, EQUI 81, EQUI 82, EQUI 83, EQUI 84, EQUI 85, EQUI 86, EQUI 87, EQUI 88, EQUI 89, EQUI 90,

SI ID: Description	Relationship type	Related SI ID: Description
		EQUI 93, EQUI 94, EQUI 96, EQUI 100
EQUI 3: #132 Injection Molding Machine	sends to	STRU 26: #957 Room Vent
EQUI 5: Roller Coater	sends to	STRU 15: Paint Booth exhaust 307-310/Mask Washers 337-338
EQUI 14: Grinder (918)	sends to	STRU 20: Plastic Grinder #918
EQUI 22: Paint Booth (322)	sends to	STRU 5: Paint Booth exhaust 318-325/Mask Washers 340-343
EQUI 22: Paint Booth (322)	is controlled by	TREA 6: Mat or Panel Filter
EQUI 23: Paint Booth (323)	sends to	STRU 5: Paint Booth exhaust 318-325/Mask Washers 340-343
EQUI 23: Paint Booth (323)	is controlled by	TREA 7: Mat or Panel Filter
EQUI 24: Paint Booth (321)	sends to	STRU 5: Paint Booth exhaust 318-325/Mask Washers 340-343
EQUI 24: Paint Booth (321)	is controlled by	TREA 8: Mat or Panel Filter
EQUI 25: Paint Booth (320)	sends to	STRU 5: Paint Booth exhaust 318-325/Mask Washers 340-343
EQUI 25: Paint Booth (320)	is controlled by	TREA 9: Mat or Panel Filter
EQUI 26: Paint Booth (319)	sends to	STRU 5: Paint Booth exhaust 318-325/Mask Washers 340-343
EQUI 26: Paint Booth (319)	is controlled by	TREA 10: Mat or Panel Filter
EQUI 27: Paint Booth (318)	sends to	STRU 5: Paint Booth exhaust

SI ID: Description	Relationship type	Related SI ID: Description
		318-325/Mask Washers 340-343
EQUI 27: Paint Booth (318)	is controlled by	TREA 11: Mat or Panel Filter
EQUI 28: Paint Booth (315)	sends to	STRU 6: Paint Booth exhaust 315
EQUI 28: Paint Booth (315)	is controlled by	TREA 12: Mat or Panel Filter
EQUI 29: Paint Booth (314)	sends to	STRU 7: Paint Booth exhaust 314
EQUI 29: Paint Booth (314)	is controlled by	TREA 13: Mat or Panel Filter
EQUI 30: Paint Booth (313)	sends to	STRU 8: Paint Booth exhaust 313
EQUI 30: Paint Booth (313)	is controlled by	TREA 14: Mat or Panel Filter
EQUI 31: Paint Booth (316)	sends to	STRU 9: Paint Booth exhaust 316
EQUI 31: Paint Booth (316)	is controlled by	TREA 15: Mat or Panel Filter
EQUI 32: Paint Booth (312)	sends to	STRU 11: Paint Booth exhaust 312
EQUI 32: Paint Booth (312)	is controlled by	TREA 17: Mat or Panel Filter
EQUI 33: Paint Booth (311)	sends to	STRU 12: Paint Booth exhaust 311
EQUI 33: Paint Booth (311)	is controlled by	TREA 18: Mat or Panel Filter
EQUI 34: Paint Booth (301)	sends to	STRU 14: Paint Booth exhaust 301-306/Mask Washers 334-336
EQUI 34: Paint Booth (301)	is controlled by	TREA 19: Mat or Panel Filter
EQUI 35: Paint Booth (302)	sends to	STRU 14: Paint Booth exhaust 301-306/Mask Washers 334-336
EQUI 35: Paint Booth (302)	is controlled by	TREA 20: Mat or Panel Filter
EQUI 36: Paint Booth	sends to	STRU 14: Paint

SI ID: Description	Relationship type	Related SI ID: Description
(303)		Booth exhaust 301-306/Mask Washers 334- 336
EQUI 36: Paint Booth (303)	is controlled by	TREA 21: Mat or Panel Filter
EQUI 37: Paint Booth (304)	sends to	STRU 14: Paint Booth exhaust 301-306/Mask Washers 334- 336
EQUI 37: Paint Booth (304)	is controlled by	TREA 22: Mat or Panel Filter
EQUI 38: Paint Booth (305)	sends to	STRU 14: Paint Booth exhaust 301-306/Mask Washers 334- 336
EQUI 38: Paint Booth (305)	is controlled by	TREA 23: Mat or Panel Filter
EQUI 39: Paint Booth (306)	sends to	STRU 14: Paint Booth exhaust 301-306/Mask Washers 334- 336
EQUI 39: Paint Booth (306)	is controlled by	TREA 24: Mat or Panel Filter
EQUI 40: Paint Booth (307)	sends to	STRU 15: Paint Booth exhaust 307-310/Mask Washers 337- 338
EQUI 40: Paint Booth (307)	is controlled by	TREA 25: Mat or Panel Filter
EQUI 41: Paint Booth (308)	sends to	STRU 15: Paint Booth exhaust 307-310/Mask Washers 337- 338
EQUI 41: Paint Booth (308)	is controlled by	TREA 26: Mat or Panel Filter
EQUI 42: Paint Booth (309)	sends to	STRU 15: Paint Booth exhaust 307-310/Mask Washers 337- 338
EQUI 42: Paint Booth (309)	is controlled by	TREA 27: Mat or Panel Filter
EQUI 43: Paint Booth (310)	sends to	STRU 15: Paint Booth exhaust

SI ID: Description	Relationship type	Related SI ID: Description
		307-310/Mask Washers 337- 338
EQUI 43: Paint Booth (310)	is controlled by	TREA 28: Mat or Panel Filter
EQUI 48: Pad Printing Machine No. 435		
EQUI 49: Pad Printing Machine No. 433		
EQUI 51: ABS Storage Silo		
EQUI 52: ABS Storage Silo		
EQUI 53: ABS Storage Silo		
EQUI 54: Pad Printing 434		
EQUI 57: Pad Printing Machine 449		
EQUI 59: Pad Printing 423		
EQUI 60: Pad Printing 436		
EQUI 61: Pad Printing 448		
EQUI 67: #104 Injection Molding Machine	sends to	STRU 22: #941 Room Vent
EQUI 72: #109 Injection Molding Machine	sends to	STRU 23: #942 Room Vent
EQUI 73: #110 Injection Molding Machine	sends to	STRU 23: #942 Room Vent
EQUI 74: #111 Injection Molding Machine	sends to	STRU 24: #943 Room Vent
EQUI 75: #112 Injection Molding Machine	sends to	STRU 24: #943 Room Vent
EQUI 76: #113 Injection Molding Machine	sends to	STRU 24: #943 Room Vent
EQUI 77: #114 Injection Molding Machine	sends to	STRU 25: #944 Room Vent
EQUI 78: #115 Injection Molding Machine	sends to	STRU 25: #944 Room Vent
EQUI 79: #116	sends to	STRU 25: #944

SI ID: Description	Relationship type	Related SI ID: Description
Injection Molding Machine		Room Vent
EQUI 80: #117 Injection Molding Machine	sends to	STRU 25: #944 Room Vent
EQUI 81: #118 Injection Molding Machine	sends to	STRU 22: #941 Room Vent
EQUI 82: #120 Injection Molding Machine	sends to	STRU 22: #941 Room Vent
EQUI 83: #121 Injection Molding Machine	sends to	STRU 23: #942 Room Vent
EQUI 84: #122 Injection Molding Machine	sends to	STRU 23: #942 Room Vent
EQUI 85: #123 Injection Molding Machine	sends to	STRU 24: #943 Room Vent
EQUI 86: #125 Injection Molding Machine	sends to	STRU 24: #943 Room Vent
EQUI 87: #127 Injection Molding Machine	sends to	STRU 24: #943 Room Vent
EQUI 88: #128 Injection Molding Machine	sends to	STRU 25: #944 Room Vent
EQUI 89: Screen Press (471)	sends to	STRU 17: Screen Print Dryer #450
EQUI 90: Screen Press (406)	sends to	STRU 17: Screen Print Dryer #450
EQUI 92: Dryer	sends to	STRU 17: Screen Print Dryer #450
EQUI 93: Screen Press (470)	sends to	STRU 16: Screen Print Dryer #459
EQUI 94: Screen Press (472)	sends to	STRU 16: Screen Print Dryer #459
EQUI 95: Dryer	sends to	STRU 16: Screen Print Dryer #459
EQUI 96: Screen Press (455)	sends to	STRU 17: Screen Print Dryer #450

SI ID: Description	Relationship type	Related SI ID: Description
EQUI 97: Cure Oven (361)	sends to	STRU 3: Oven exhaust 361
EQUI 98: Cure Oven (360)	sends to	STRU 2: Oven exhaust 360
EQUI 100: #135 Injection Molding Machine	sends to	STRU 22: #941 Room Vent
STRU 2: Oven exhaust 360		
STRU 3: Oven exhaust 361		
STRU 4: Oven exhaust 362		
STRU 5: Paint Booth exhaust 318-325/Mask Washers 340-343		
STRU 6: Paint Booth exhaust 315		
STRU 7: Paint Booth exhaust 314		
STRU 8: Paint Booth exhaust 313		
STRU 9: Paint Booth exhaust 316		
STRU 11: Paint Booth exhaust 312		
STRU 12: Paint Booth exhaust 311		
STRU 13: Paint Booth exhaust 339		
STRU 14: Paint Booth exhaust 301-306/Mask Washers 334-336		
STRU 15: Paint Booth exhaust 307-310/Mask Washers 337-338		
STRU 16: Screen Print Dryer #459		
STRU 17: Screen Print Dryer #450		
STRU 18: UV Dryer #463		
STRU 19: Paint Storage Room		
STRU 20: Plastic Grinder #918		
STRU 22: #941 Room Vent		
STRU 23: #942 Room Vent		

SI ID: Description	Relationship type	Related SI ID: Description
STRU 24: #943 Room Vent		
STRU 25: #944 Room Vent		
STRU 26: #957 Room Vent		
STRU 27: Eden Prairie West		
STRU 28: Eden Prairie East		
TREA 6: Mat or Panel Filter		
TREA 7: Mat or Panel Filter		
TREA 8: Mat or Panel Filter		
TREA 9: Mat or Panel Filter		
TREA 10: Mat or Panel Filter		
TREA 11: Mat or Panel Filter		
TREA 12: Mat or Panel Filter		
TREA 13: Mat or Panel Filter		
TREA 14: Mat or Panel Filter		
TREA 15: Mat or Panel Filter		

SI ID: Description	Relationship type	Related SI ID: Description
TREA 17: Mat or Panel Filter		
TREA 18: Mat or Panel Filter		
TREA 19: Mat or Panel Filter		
TREA 20: Mat or Panel Filter		
TREA 21: Mat or Panel Filter		
TREA 22: Mat or Panel Filter		
TREA 23: Mat or Panel Filter		
TREA 24: Mat or Panel Filter		
TREA 25: Mat or Panel Filter		
TREA 26: Mat or Panel Filter		
TREA 27: Mat or Panel Filter		
TREA 28: Mat or Panel Filter		
TREA 29: Fabric Filter - Low Temperature, i.e., T<180 Degrees F		

5. Limits and other requirements

Requirement number	Requirement and citation
TFAC 1	ALUDEC USA, Inc.
5.1.1	The Permittee shall not use any Methyl Ethyl Ketone in paint thinners and/or clean up solvents in EQUIs 5-14, EQUIs 17-19, EQUIs 22-43, EQUI 48, EQUI 49, EQUI 51-54, EQUI 90, EQUI 92, EQUI 93, and EQUIs 94-98. A Material Safety Data Sheet (or equivalent) shall be kept for each material used. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001]
5.1.2	Parts Recordkeeping. The Permittee shall keep documentation on-site for all plastic parts coated that demonstrate whether or not the parts will be used in business machines as defined in 40 CFR pt. 60, subp. TTT (e.g., product code, client name/ID, etc.). [Minn. R. 7007.0800, subps. 4-5]
5.1.3	Equipment Labeling: The Permittee shall permanently affix a unique number to each emissions unit for tracking purposes. Each number shall correlate the unit to the appropriate Subject Item number used in this permit. 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. If equipment is added, it shall be given a new unique number; numbers from replaced or removed equipment shall not be reused. [Minn. R. 7007.0800, subp. 2(A)]
5.1.4	Equipment Inventory: The Permittee shall maintain a written list of all emissions units and control equipment on site. The list shall include the type of equipment, manufacturer and model number (if available), unique ID number (assigned and affixed as required by this permit), the corresponding TREA number used to control the unit (if applicable), and dates of installation, modification, and construction. For paint booths, the list shall also include the type of coating (finish or non-finish), spray technology, the manufacturer specified transfer efficiency, the capture efficiency of the booth (100% or 80%), and the spray capacity in gal/hr. The Permittee shall update the list to include any replaced, modified, or changed equipment prior to making the change. For equipment that is replaced, modified or changed, the Permittee shall complete an evaluation to determine if a permit amendment is needed as detailed at COMG 7 and shall include a record of the evaluation as part of the equipment list. [Minn. R. 7007.0800, subp. 2(A)]
5.1.5	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendices A. Insignificant Activities and General Applicable Requirements, Appendix B. New Source Performance Standard Calculations: 40 CFR pt. 60, subp. TTT, Appendix C. Maximum Contents and Process Rates, and Appendix D. MPCA-Approved Emissions Factors for Injection Molding. [Minn. R. 7007.0800, subp. 2(A) & (B)]
5.1.6	The Permittee must comply with Minn. Stat. 116.385. The Permittee may not use trichloroethylene at its permitted facility after June 1, 2022, including in any manufacturing, processing, or cleaning processes, except as described in Minn. Stat. 116.385, subd. 2(b) and 4. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. Stat. 116.385]
5.1.7	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. This permit shall not alter or affect the liability of the Permittee for any violation of applicable

Requirement number	Requirement and citation
	requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800(A)(2)]
5.1.8	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]
5.1.9	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2(A) & (B)]
5.1.10	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 control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices 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 practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
5.1.11	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]
5.1.12	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]
5.1.13	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]
5.1.14	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)]
5.1.15	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
5.1.16	<p>Monitoring Equipment Calibration - The Permittee shall either:</p> <ol style="list-style-type: none"> 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. <p>For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]</p>
5.1.17	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, 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)]
5.1.18	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for five (5) years from the date of monitoring, sample, measurement, or report. Records

Requirement number	Requirement and citation
	<p>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)]</p>
5.1.19	<p>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)]</p>
5.1.20	<p>If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]</p>
5.1.21	<p>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.</p> <p>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]</p>
5.1.22	<p>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.</p> <p>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]</p>
5.1.23	<p>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]</p>
5.1.24	<p>Notification of Deviations Endangering Human Health or the Environment Report: Within two 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:</p> <ol style="list-style-type: none"> 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]
5.1.25	<p>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.</p>

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	Upon adoption of a new or amended federal applicable requirement, and if there are three or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]
5.1.26	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). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]
5.1.27	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]
5.1.28	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
COMG 1	Industrial Process Equipment
5.2.1	Opacity <= 20 percent opacity. This limit applies separately to each subject item in COMG 1. [Minn. R. 7011.0715, subp. 1(B)]
5.2.2	Particulate Matter <= 0.30 grains per 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 subject item in COMG 1. [Minn. R. 7011.0715, subp. 1(A)]
COMG 2	Fabric Filters
5.3.1	The requirements of COMG 2 apply separately to each Fabric Filter in COMG 2. [Minn. R. 7007.0800, subp. 2(A)]
5.3.2	If the Permittee replaces any existing fabric filter, adds new fabric filters, or modifies the fabric filters listed in COMG 2, such equipment is subject to all of the requirements of COMG 2. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.3.3	The Permittee shall vent emissions from each emission unit in COMG 6 to a fabric filter meeting the requirements of COMG 2 whenever the emission unit operates, and operate and maintain each fabric filter at all times that any emissions are vented to it. The Permittee shall document periods of non-operation of the control equipment in COMG 2 whenever any emissions unit in COMG 6 is operating. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.3.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 99 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.3.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron and PM < 10 micron >= 99 percent control efficiency. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.3.6	The Permittee shall operate and maintain the fabric 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

Requirement number	Requirement and citation
5.3.7	<p>by staff and MPCA staff. [Minn. R. 7007.0800, subp. 14]</p> <p>Pressure Drop ≥ 1.0 and ≤ 4.0 inches of water, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3 based on the values recorded during the most recent MPCA-approved performance test where compliance was demonstrated. The new range shall be implemented upon receipt of the Notice of Compliance letter granting preliminary approval. The range is final upon issuance of a permit amendment incorporating the change.</p> <p>If the recorded pressure drop is outside the required range, the emissions during that time shall be considered uncontrolled until the pressure drop is once again within the required range. The period of time for which the pressure drop is considered out of range shall be reported as a deviation. The Permittee shall record the pressure drop at least once every 24 hours when in operation. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001]</p>
5.3.8	<p>Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [CAAA of 1990, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.3.9	<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"> - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. <p>Corrective actions shall return the pressure drop to within the permitted range, and/or 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 fabric 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. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]</p>
5.3.10	<p>Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]</p>
5.3.11	<p>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. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]</p>
5.3.12	<p>The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]</p>
COMG 3	Ovens
5.4.1	<p>Opacity ≤ 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies separately to each subject item in COMG 3. [Minn. R. 7011.0610, subp. 1(A)(2)]</p>
5.4.2	<p>Particulate Matter ≤ 0.30 grains per 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 subject item in COMG 3. [Minn. R. 7011.0610, subp. 1(A)(1)]</p>
5.4.3	<p>Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]</p>

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5.4.4	The Permittee shall keep records of fuel purchases showing fuel types on monthly basis. [Minn. R. 7007.0800, subp. 5]
COMG 4	Panel Filters
5.5.1	The requirements of COMG 4 apply separately to each Mat or Panel Filter in COMG 4. [Minn. R. 7007.0800, subp. 2(A)]
5.5.2	If the Permittee replaces any existing panel filter, adds new panel filters, or modifies the panel filters listed in COMG 4, such equipment is subject to all of the requirements of COMG 4. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.5.3	The Permittee shall vent emissions from any spray booth in COMG 5 to panel filters meeting the requirements of COMG 4 whenever the spray booth operates, and operate and maintain the panel filter at all times that any emissions are vented to the controls. The Permittee shall document periods of non-operation of the control equipment in COMG 4 whenever any spray booth is operating. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.b(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.5.4	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter \geq 74.0 percent control efficiency. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.5.5	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron and PM < 10 micron \geq 74.0 percent control efficiency. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.5.6	The Permittee shall operate and maintain the panel 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]
5.5.7	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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.5.8	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
5.5.9	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. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
5.5.10	Hood Certification and Evaluation: The Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating

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	requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
5.5.11	Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
COMG 5	Spray Booths
5.6.1	All spray booths at the facility, including existing, modified, or new paint/spray booths or paintlines are subject to the requirements of COMG 5. The requirements of COMG 5 apply separately to each spray booth in COMG 5. [Minn. R. 7007.0800, subp. 2(A)]
5.6.2	<p>Operating Scenarios: The Permittee is authorized to change any of their existing paint booths such that they become affected facilities under 40 CFR pt. 60, subp. TTT (NSPS for surface coating of plastic parts for business machines). All booths must operate in compliance with all permit limits (e.g., COMG 7, etc.).</p> <p>Under Operating Scenario 1, the booths are not subject to the NSPS. All booths fall into this scenario at the time of permit issuance.</p> <p>Under Operating Scenario 2, the coatings used in the booth are subject to the NSPS limits.</p> <p>Requirements that always apply are listed first, prior to both operating scenario requirements. [Minn. R. 7007.0800, subp. 11]</p>
5.6.3	<p>Operating Scenario Recordkeeping. For each paint booth listed in COMG 5, the Permittee shall record and maintain a written log which documents the scenario under which the paint booth is operating at any given time. The log shall be updated whenever any paint booth changes from one scenario to another, and it shall indicate which scenario is being used and the date and time of the operational change.</p> <p>Once a paint booth has ever operated in Scenario 2, the Permittee shall record and maintain a VOC materials usage log for the paint booth that documents which VOC containing materials were used under each operating scenario. The Permittee shall record the name of the material and the amount used. The log shall correlate the materials used to the Parts Recordkeeping required in the TFAC section of this permit. [Minn. R. 7007.0800, subp. 11]</p>
5.6.4	The Permittee shall vent emissions from all paint booths, including existing, modified, or new paint/spray booths, to control equipment meeting the permit requirements of COMG 4. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.6.5	Transfer Efficiency: greater than or equal to 75 percent transfer efficiency for all spray guns. Transfer efficiency, for the purposes of this permit, is defined as the percentage of the total solids sprayed that is deposited either on the product being painted, the fixtures, or the masks being used to paint the parts (but not on the floor or booth structure). [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40

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	CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.6.6	The Permittee shall use High Volume Low Pressure (HVL) spray guns for all non-finish coating operations. Each spray booth shall be labeled as to whether it is used for finish or non-finish coating. The labels shall be updated any time the coating type changes. [CAAA of 1990.& Stip Agreement, 4/20/2001]
5.6.7	Operating Scenario 1: Opacity <= 20 percent opacity. This limit applies to each emissions unit in COMG 5 individually. [Minn. R. 7011.0715, subp. 1(B)]
5.6.8	Operating Scenario 1: Particulate Matter <= 0.30 grains per 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 to each emissions unit in COMG 5 individually. [Minn. R. 7011.0715, subp. 1(A)]
5.6.9	Operating Scenario 2: The remaining permit conditions at COMG 5 are for operating scenario 2. The requirements under this NSPS Operating Scenario apply to each spray booth in COMG 5 in which plastic parts for use in the manufacture of business machines receive prime coats, color coats, texture coats, or touch-up coats. [40 CFR 60.720(a), Minn. R. 7011.2580]
5.6.10	Definitions. The following select terms are included from 40 CFR Section 60.721 for clarity. -Business machine means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information, or convert sound into electrical impulses for transmission. -Nominal 1-month period means either a calendar month, 30-day month, accounting month, or similar monthly time period that is established prior to the performance test required by 40 CFR Section 60.723. -Coating solids applied means the coating solids that adhere to the surface of the plastic business machine part being coated. [40 CFR 60.721(a), Minn. R. 7011.2580]
5.6.11	The Permittee shall comply with the emission limitations under 40 CFR Section 60.721 on and after the date on which the initial performance test, required by Sections 60.8 and 60.723, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first. [40 CFR 60.722(a), Minn. R. 7011.2580]
5.6.12	Volatile Organic Compounds <= 1.5 milligrams per liter of solids coating applied from prime coating of plastic parts for business machines. [40 CFR 60.722(a)(1), Minn. R. 7011.2580]
5.6.13	Volatile Organic Compounds <= 1.5 milligrams per liter of solids coating applied from color coating of plastic parts for business machines. [40 CFR 60.722(a)(2), Minn. R. 7011.2580]
5.6.14	Volatile Organic Compounds <= 2.3 milligrams per liter of solids coating applied from texture coating of plastic parts for business machines. [40 CFR 60.722(a)(3), Minn. R. 7011.2580]
5.6.15	Volatile Organic Compounds <= 2.3 milligrams per liter of solids coating applied from touch-up coating of plastic parts for business machines. [40 CFR 60.722(a)(4), Minn. R. 7011.2580]
5.6.16	All VOC emissions that are caused by coatings applied in each affected facility, regardless of the actual point of discharge of emissions into the atmosphere, shall be included in determining compliance with the VOC emission limits under 40 CFR pt. 60, subp. TTT. [40 CFR 60.722(b), Minn. R. 7011.2580]
5.6.17	Initial Performance Test. For each affected facility, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, the Permittee shall conduct an initial performance test according to the Performance Test Procedures given in this permit. [40 CFR 60.723(b), 60.8(a), Minn. R. 7011.2580]
5.6.18	Monthly Performance Test. The Permittee shall conduct a performance test each nominal 1-month period for each affected facility following the Performance Test Procedures given in this permit. [40

Requirement number	Requirement and citation
5.6.19	<p>CFR 60.723(b), Minn. R. 7011.2580]</p> <hr/> <p>Performance Test Procedures.</p> <p>1) The Permittee shall determine the composition of coatings by analysis of each coating, as received, using Reference Method 24, from data that have been determined by the coating manufacturer using Reference Method 24, or by other methods approved by the Administrator.</p> <p>2) The Permittee shall determine the volume of coating and the mass of VOC used for dilution of coatings from company records during each nominal 1-month period. If a common coating distribution system serves more than one affected facility or serves both affected and nonaffected spray booths, the Permittee shall estimate the volume of coatings used at each facility by using procedures approved by the Administrator.</p> <p>3) The Permittee shall use one of the following methods for demonstrating compliance with the VOC limits.</p> <p>A. The Permittee shall calculate the volume-weighted average mass of VOCs in coatings emitted per unit volume of coating solids applied (N) at each coating operation (i.e., for each type of coating (prime, color, texture, and touch-up) used) during each nominal 1-month period for each affected facility using the procedures detailed in Appendix B of this permit. Each 1-month calculation is considered a performance test.</p> <p>OR</p> <p>B. If no VOCs are added to coatings during application or distribution (e.g., received coatings are not mixed with other materials prior to application), the Permittee shall demonstrate that each coating material as received is less than the limits specified in this permit by dividing the VOC content (in kg VOC/l of solids), as received, by the lowest transfer efficiency at which the coating is applied. [40 CFR 60.723(b)(2)(i), Minn. R. 7011.2580]</p>
5.6.20	<p>Recordkeeping. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emissions units including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b), Minn. R. 7019.0100, subp. 1]</p>
5.6.21	<p>Recordkeeping. The Permittee shall maintain records of all data and calculations used to determine monthly VOC emissions from each coating operation for each affected facility as specified in 40 CFR Section 60.7(d) for a period of at least two years. Regardless of this requirement, Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for 5 years from the date of generation. [40 CFR 60.724(d), Minn. R. 7011.2580]</p>
5.6.22	<p>Initial Performance Test Report. The Permittee shall submit a report to the MPCA of the initial performance test results postmarked within 45 days of the end of the initial nominal 1-month period. The Permittee shall include the following data in the report:</p> <p>1) Except as provided for in the next item, the volume-weighted average mass of VOCs emitted to the atmosphere per volume of applied coating solids (N) for the initial nominal 1-month period for each coating operation from each affected facility.</p> <p>2) For each affected facility where compliance is determined under option 3(B) under the Performance Test Procedures, a list of the coatings used during the initial nominal 1-month period, the VOC content of each coating calculated from data determined using Reference Method 24, and the lowest transfer efficiency at which each coating is applied during the initial nominal 1-month period. [40 CFR 60.724(a)(c), Minn. R. 7011.2580]</p>
5.6.23	<p>Quarterly and Semiannual Reporting. The Permittee shall submit the following reports postmarked</p>

Requirement number	Requirement and citation
	<p>within 10 days after the end of the period specified below.</p> <p>1) The Permittee shall report the volume-weighted average mass of VOCs per unit volume of coating solids applied for each coating operation for each affected facility during each nominal 1-month period in which the facility is not in compliance with the applicable emission limits specified in Section 60.722. Reports of noncompliance shall be submitted on a quarterly basis, occurring every 3 months following the initial report; and</p> <p>2) The Permittee shall submit statements that each affected facility has been in compliance with the applicable emission limits specified in Section 60.722 during each nominal 1-month period. Statements of compliance shall be submitted on a semiannual basis. [40 CFR 60.724(b), Minn. R. 7011.2580]</p>
COMG 6	Grinders
5.7.1	The Permittee shall vent emissions from all grinders, including existing, modified, or new grinders, to control equipment meeting the requirements of COMG 2. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
5.7.2	Opacity <= 20 percent opacity. This limit applies separately to each subject item in COMG 6. [Minn. R. 7011.0715, subp. 1(B)]
5.7.3	Particulate Matter <= 0.30 grains per 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 subject item in COMG 6. [Minn. R. 7011.0715, subp. 1(A)]
COMG 7	Total Facility VOC and PM Limits
5.8.1	<p>Volatile Organic Compounds <= 90.0 tons per year 12-month rolling sum to be calculated by the 10th day of each month for the previous 12-month period as described later in this permit. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 7.</p> <p>All non-combustion VOC-emitting equipment at the facility, other than activities listed in Appendix A of this permit, are subject to this limit. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.8.2	<p>PM < 10 micron <= 50.0 tons per year 12-month rolling sum to be calculated by the 10th day of each month for the previous 12-month period as described later in this permit. All particulate matter shall be conservatively assumed to be particulate matter less than 10 microns and particulate matter less than 2.5 microns. Solids contents for each material shall be determined as described under the Material Content requirement in COMG 7.</p> <p>All particulate-emitting coating equipment at the facility are subject to this limit. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.8.3	HAPs - Total <= 20.0 tons per year 12-month rolling sum to be calculated by the 10th day of each month for the previous 12-month period. HAP contents for each HAP-containing material (e.g., coatings, inks, gun cleaner,...) shall be determined as described under the Material Content requirement in COMG 7.

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	<p>All non-combustion HAP-emitting equipment at the facility, other than activities listed in Appendix A of this permit, are subject to this limit. [Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.8.4	<p>HAPs - Single \leq 8.0 tons per year 12-month rolling sum o be calculated by the 10th day of each month for the previous 12-month period. HAP contents for each HAP-containing material (e.g., coatings, inks, gun cleaner,...) shall be determined as described under the Material Content requirement in COMG 7.</p> <p>All non-combustion HAP-emitting equipment at the facility, other than activities listed in Appendix A of this permit, are subject to this limit. [Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.8.5	<p>VOC and HAP PreCaps: If the Permittee replaces any existing non-combustion VOC and/or HAP-emitting equipment, adds new VOC and/or HAP-emitting equipment, or modifies the existing equipment listed in COMG 7, such equipment is subject to these permit limits as well as all of the requirements of COMG 7. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. The Permittee is not required to repeat VOC calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.8.6	<p>PM/PM10/PM2.5 PreCap: If the Permittee replaces any existing PM-emitting coating equipment, adds new PM-emitting coating equipment, or modifies the existing equipment, such equipment is subject to the COMG 7 permit limit as well as all of the requirements of COMG 7, COMG 4, and COMG 5. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. For modifications that solely involve equipment covered by the PM/PM10/PM2.5 PreCap, the Permittee is not required to repeat particulate calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.8.7	<p>Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the following:</p> <ol style="list-style-type: none"> 1) the total quantity of each coating and other VOC, HAP, and solids-containing materials used at the facility (e.g., 50 gallons of coating A); and 2) the quantity of Acrylic and ABS resin used. <p>This shall be based on either written usage logs or records of material deliveries. [Minn. R. 7007.0800, subs. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
5.8.8	<p>Monthly Recordkeeping. By the 10th of the month, the Permittee shall calculate and record the following:</p>

Requirement number	Requirement and citation
5.8.9	<p>1) For activities where emissions are based on content of raw materials, the total usage of each solids, HAP, and VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC, Total HAP, each individual HAP, and solids contents of each material as determined by the Material Content requirement of this permit.</p> <p>2) The total usage of both Acrylic and ABS resin for the previous calendar month using the daily records.</p> <p>3) The VOC, Total HAP, each individual HAP, and PM/PM10/PM2.5 emissions for the previous month using the formulas specified in this permit.</p> <p>4) The 12-month rolling sum VOC, Total HAP, each individual HAP, and PM/PM10/PM2.5 emissions for the previous 12-month period by summing the monthly VOC, Total HAP, each individual HAP, and PM/PM10/PM2.5 emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]</p> <hr/> <p>Monthly Calculation -- VOC Emissions. The Permittee shall calculate VOC emissions using the following equations:</p> $\text{VOC (tons/month)} = V - W + AA$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$ $AA = ((EF1 \times P1) + (EF2 \times P2))/2000$ <p>where:</p> <p>V = total VOC used in tons/month; A# = amount of each VOC-containing material used, in tons/month; B# = weight percent VOC in A#, as a fraction; W = the amount of VOC shipped in waste, in tons/month; C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; D# = weight percent of VOC in C#, as a fraction; AA = total VOC emitted from all injection molding machines, in tons/month; EF1 = VOC emissions factor for ABC injection molding machines, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factor at the time of permit issuance is listed in Appendix D of this permit; P1 = total pounds of ABS resin used, in pounds/month; EF2 = VOC emissions factor for Acrylic injection molding, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factor at the time of permit issuance is listed in Appendix D of this permit; and P2 = total pounds of Acrylic resin used, in pounds/month. [Minn. R. 7007.0800, subps. 4-5]</p>
5.8.10	<p>Monthly Calculation -- PM/PM10/PM2.5 Emissions. The Permittee shall calculate PM/PM10/PM2.5 emissions from the spray booths using the following equations:</p> $B = G \times (1-CE) \times (1-TE)$ $G = (H1 \times J1) + (H2 \times J2) + (H3 \times J3) + \dots$ <p>where:</p> <p>B = total PM/PM10/PM2.5 emissions in tons/month. G = total solids used in pounds/month; CE = overall control efficiency, as a fraction. This shall be 0.74; TE = transfer efficiency, as a fraction, as defined in this permit. This shall be 0.75, unless otherwise approved by the MPCA in writing; H# = amount of each solids-containing material sprayed, in pounds/month; and J# = weight percent solids in H#, as a fraction.</p>

Requirement number	Requirement and citation
	<p>If different spray booths have different approved transfer efficiencies, the calculation shall be completed separately for each type of booth and then summed to obtain the total PM/PM10/PM2.5 emissions. [Minn. R. 7007.0800, subs. 4-5]</p>
5.8.11	<p>Monthly Calculation -- HAP Emissions. The Permittee shall calculate each individual HAP and total HAP emissions using the following equations:</p> <p>HAP Emissions (tons/month) = X - Y + Z $X = (K1 \times L1) + (K2 \times L2) + (K3 \times L3) + \dots$ $Y = (M1 \times N1) + (M2 \times N2) + (M3 \times N3) + \dots$ $Z = ((EF1 \times P1) + (EF2 \times P2))/2000$</p> <p>Where: X = the amount of each pollutant (either total HAP or each individual HAP), used, in tons/month; K# = Amount of each HAP-containing material used in the previous month, in tons/month; L# = weight percent of each individual or total HAP in K#, as a fraction (e.g., 50% is 0.50); Y = the amount of each pollutant (either total HAP or each individual HAP) shipped in waste, in tons/month; M# = amount, in tons/month, of each HAP-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; N# = weight percent of each individual or total HAP in M#, as a fraction; Z = the amount of each pollutant (either total HAP or each individual HAP) emitted from all injection molding machines, in tons/month; EF1 = the appropriate HAP emissions factor (total HAP or each individual HAP) for ABC injection molding machines, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factors at the time of permit issuance are listed in Appendix D of this permit; P1 = total pounds of ABS resin used, in pounds/month; EF2 = the appropriate HAP emissions factor (total HAP or each individual HAP) for Acrylic injection molding, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factors at the time of permit issuance are listed in Appendix D of this permit; and P2 = total pounds of Acrylic resin used, in pounds/month. [Minn. R. 7007.0800, subs. 4-5]</p>
5.8.12	<p>Material Content: VOC, HAPs, and Solids (PM/PM10/PM2.5) contents in all materials shall be determined by the Material Safety Data Sheet (MSDS) or Certificate of Analysis (COA) provided by the supplier for each material used. If a material content range is given on the MSDS or COA, the highest number in the range shall be used in all permit calculations for COMG 7. When using the MSDS or COA as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns and PM less than 2.5 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAPs, and solids contents of any material, according to EPA and ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS or COA. [Minn. R. 7007.0800, subs. 4-5]</p>
5.8.13	<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials and process rates when determining the annual and short term potential to emit of units in COMG 7. These assumptions are listed in Appendix C of this permit. Changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]</p>

6. Submittal/action requirements

This section lists most of the submittals required by this permit. Please note that some submittal requirements may appear in the Limits and Other Requirements section, or, if applicable, within a Compliance Schedule section.

Requirement number	Requirement and citation
TFAC 1	ALUDEC USA, Inc.
6.1.1	The Permittee must submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee must 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. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(B)(2)]
6.1.2	The Permittee must submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form CR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(D)]
6.1.3	The Permittee shall submit an annual report by the 31st of January. The report shall describe the changes made at the Facility during the previous calendar year using the latest MPCA application forms. The report shall include the emission unit, stack/vent, group, and control equipment data for any new, modified, or replaced units or control devices. The report shall be submitted with the annual Compliance Certification required by this permit. As part of the Annual Report, the Permittee shall verify and certify that the Facility has maintained minor source status for New Source Review. [Minn. R. 7007.0800, subp. 2(A)]
COMG 5	Spray Booths
6.2.1	The Permittee shall submit a notification of any and each physical or operational change which makes an existing unit subject to 40 CFR pt. 60, subp. TTT (change so that the unit now coats plastic parts for business machines): due 60 days (or as soon as practical) before the change is commenced. This notice shall include the information listed in 40 CFR Section 60.7(a)(4). [40 CFR 60.7(a)(4), Minn. R. 7019.0100, subp. 1]
6.2.2	Report: due before end of each 36 months, next due on 12/31/2022 and every 36 months thereafter. The Permittee shall conduct engineering studies to verify the transfer efficiency of the spray guns. The Permittee shall submit the results of each study in this report. [Minn. R. 7007.0800, subp 2,4]
6.2.3	For any unit newly constructed that is subject to 40 CFR pt. 60, subp. TTT, the Permittee shall submit a notification of date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(1), Minn. R. 7019.0100, subp. 1]
6.2.4	For any unit newly constructed that is subject to 40 CFR pt. 60, subp. TTT, the Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(3), Minn. R. 7019.0100, subp. 1]

7. Appendices

Appendix A. 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.	Rule description of the activity	General applicable requirement
Minn. R. 7007.1300, subp. 3(B)(1)	Infrared electric ovens	Opacity <= 20% (Minn. R. 7011.0110)
Minn. R. 7007.1300, subp. 3(D)	Emissions from a laboratory, as defined in Minn. R. 7007.1300, subp. 3(D)	PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)
Minn. R. 7007.1300, subp. 3(F)	Individual units with potential emissions less than 2000 lb/year of certain pollutants <i>The Permittee currently has 2 laser cutters, several small natural gas units (total of 9.82 MMBtu/hr), and five small VOC-emitting units that qualify under this subpart.</i>	<i>Combustion activities:</i> PM <= 0.4 lb/MMBtu Opacity <= 20%, with exceptions (Minn. R. 7011.0515) <i>Other activities:</i> PM, variable depending on airflow Opacity <= 20% (Minn. R. 7011.0715)

Appendix B. New Source Performance Standard Calculations: 40 CFR pt. 60, subp. TTT

1.0 Definitions

The symbols used in this Appendix have the following meaning:

- D_c = density of each coating as received (kilograms per liter)
- D_d = density of each diluent VOC (kilograms per liter)
- L_c = the volume of each coating consumed, as received (liters)
- L_d = the volume of each diluent VOC added to coatings (liters)
- L_s = the volume of coating solids consumed (liters)
- M_d = the mass of diluent VOCs consumed (kilograms)
- M_o = the mass of VOCs in coatings consumed, as received (kilograms)
- N = the volume-weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter)
- T = the transfer efficiency for each type of application equipment used at a coating operation (fraction)
- T_{avg} = the volume-weighted average transfer efficiency for a coating operation (fraction)
- V_s = the proportion of solids in each coating, as received (fraction by volume)
- W_o = the proportion of VOCs in each coating, as received (fraction by weight)

Other terms are as defined in 40 CFR pt. 60, subp. A or TTT or are as defined in state air pollution control rules.

2.0 Calculations

As required by Table A of this permit, the Permittee shall complete the calculations detailed in this Appendix.

The Permittee shall calculate the volume-weighted average mass of VOCs in coatings emitted per unit volume of coating solids applied (N) for each coating operation [i.e., for each type of coating (prime, color, texture, and touch-up) used]

during each nominal 1-month period for each affected facility. Except as provided in 40 CFR § 60.723(b)(2)(iii), N shall be determined by the following procedures:

(A) Calculate the mass of VOCs used ($M_o + M_d$) for each coating operation during each nominal 1-month period for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj}$$

where n is the number of coatings of each type used during each nominal 1-month period and m is the number of different diluent VOCs used during each nominal 1-month period. ($\sum L_{dj} D_{dj}$ will be 0 if no VOCs are added to the coatings, as received.)

(B) Calculate the total volume of coating solids consumed (L_s) in each nominal 1-month period for each coating operation for each affected facility by the following equation:

$$L_s = \sum_{i=1}^n L_{ci} V_{si}$$

where n is the number of coatings of each type used during each nominal 1-month period.

(C) Select the appropriate transfer efficiency (T) from Table 1 for each type of coating applications equipment used at each coating operation. If the Permittee can demonstrate to the satisfaction of the Administrator that transfer efficiencies other than those shown are appropriate, the Administrator will approve their use on a case-by-case basis. Transfer efficiency values for application methods not listed below shall be approved by the Administrator on a case-by-case basis. The Permittee must submit sufficient data for the Administrator to judge the validity of the transfer efficiency claims.

(D) Where more than one application method is used within a single coating operation, the Permittee shall determine the volume of each coating applied by each method through a means acceptable to the Administrator and compute the volume-weighted average transfer efficiency by the following equation:

$$T_{avg} = \frac{\sum_{i=1}^n \sum_{k=1}^p L_{cik} V_{sik} T_k}{L_s}$$

where n is the number of coatings of each type used and p is the number of application methods used.

Table 1--Transfer Efficiencies

Application methods	Transfer efficiency	Type of coating
Air atomized spray	0.25	Prime, color, texture, touch-up, and fog coats.
Air-assisted airless spray	0.40	Prime and color coats.
Electrostatic air spray	0.40	Do.

(E) Calculate the volume-weighted average mass of VOCs emitted per unit volume of coating solids applied (N) during each nominal 1-month period for each coating operation for each affected facility by the following equation:

$$N = \frac{M_o + M_d}{L_s T_{avg}}$$

(T_{avg} = T when only one type of coating operation occurs).

Appendix C. Maximum Contents and Process Rates

All contents are “as applied” unless noted.

Emissions Unit EQUI IDs	Spray or application rate (gal/hr unless otherwise noted)	VOC Content (lb/gal, unless noted)	Solids Content (lb/gal)
5	5.0	7.89	NA
22-31	4.7	6.20	4.40
32	4.7	6.20	4.40
33-43	4.7	6.20	4.40
48	1.5**	64.7 wt%, ink only	NA
49	4.4**	64.7 wt%, ink only	NA
54	2.5**	64.7 wt%, ink only	NA
57	0.47**	47 wt%, ink only	NA
59-61	0.47**	47 wt%, ink only	NA
89-90	733*	6.20	NA
93	1029*	6.20	NA
94	733*	6.20	NA
96	344*	6.20	NA

*units of square feet per hour

**units of lb of ink/hr

Appendix D. MPCA-Approved Emissions Factors for Injection Molding

Pollutant	ABS Molding (lb/lb resin)	Acrylic Molding (lb/lb resin)
VOC	2.65E-04	4.40E-05
Acrylonitrile	8.58E-06	NA
Ethyl benzene	1.05E-05	NA
Styrene	1.80E-04	NA
Acetophenone	2.19E-05	NA
Methyl methacrylate	NA	4.40E-05
Total HAP	2.21E-04	4.40E-05

**Technical Support Document
For
Air Emission Permit No. 05301088-101**

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:

Table 1. Applicant and source address

Applicant/Address	Stationary source/Address (SIC Code: 3082 - Unsupported Plastics Profile Shapes)
Aludec USA 9650 Valley View Rd Eden Prairie, Minnesota 55344-3507	ALUDEC USA, Inc. 9650 Valley View Road Eden Prairie, MN 55344
Contact: John Fudala Phone: 952-826-3231	

1.2 Facility description

ALUDEC USA, Inc. is a manufacturer of plastic product identifiers, including nameplates, decals, and decorative trim. Its clients primarily include automobile and large equipment manufacturers. The facility consists of spray coating booths, roll coaters, screen presses, pad printing, plastic molding, storage silos, grinding, and small natural gas combustion sources (e.g., cure ovens, etc.). The Permittee also has several activities that qualify as insignificant activities under Minn. R. 7007.1300, subp. 3 (see Appendix A to the permit).

The main pollutants of concern from the facility are volatile organic compounds, hazardous air pollutants, and particulate matter. The permit also contains requirements to control particulate emissions from the spray booths and grinders using panel and fabric filters.

1.3 Description of the activities allowed by this permit action

This permit action is Administrative Amendment under Minn. R. 7007.1400, subp. 1(E) to change the owner of this facility from Douglas Corp to ALUDEC USA, Inc.

1.4 Description of notifications and applications included in this action

Table 2. Notifications and applications included in this action

Date received	Application/notification type and description
04/28/2021	Administrative Amendment (IND20210001)

1.5 Facility emissions:

The Administrative Amendment does not change the allowable emissions for the facility nor does it change the facility classification under the various permitting programs. The following table shows the existing facility classification.

Table 3. Facility classification

Classification	Major	Synthetic minor/area	Minor/area
PSD		X	
Part 70 Permit Program		X	
Part 63 NESHAP		X	

1.6 Changes to permit

In addition to the change of ownership described in Section 1.3, the following changes were made in this permit action:

- Under Minn. R. 7007.1400, subp. 1(G), all references to the subject item IDs in the permit were updated to reflect the new IDs used in the Tempo database (vs. the old Delta IDs);
- Under Minn. R. 7007.1400, subp. 1(C), incorporated a new statutory requirement that bans the use of trichloroethylene (passed by the legislature and signed by the governor on May 16, 2020);
- Under Minn. R. 7007.1400, subp. 1(G), the overall format of the permit has changed to the format used by the Tempo database vs. Delta. Example: the new permit has Appendixes A-D instead of Appendixes I-IV, instead of Table A and Table B the permit contains requirements in Sections 5 and 6, etc. These formatting changes did not change any of the actual permit requirements;
- Under Minn. R. 7007.1400, subp. 1(G), the list of subject items in the permit (including those listed in Appendix C of the permit) has been updated to reflect changes made at the facility (as allowed by the current permit and rules) since the last permit was issued (see Attachment 1 of this TSD for a list of changes);
- Under Minn. R. 7007.1400, subp. 1(J) and subp. 1(G), many conditions were updated to reflect current standard permit language. Most of these changes relate to corrections for grammar, formatting, and punctuation errors, as well as more accurate rule references (no change to the actual requirements); and
- Also under Minn. R. 7007.1400, subp. 1(J), the citations for the insignificant activities in Appendix A of the permit were revised to reflect 2019 rule changes. The listed activities did not change, just the citations.

See Attachment 2 to this TSD for a copy of all of the updated permit requirements.

2. Regulatory and/or statutory basis

Other than noted in Section 1.6 regarding the banning of trichloroethylene, this permit action does not change any regulatory requirements that apply to the facility.

3. Insignificant activities

ALUDEC USA, Inc. has several operations which are classified as insignificant activities under the MPCA's permitting rules. These are listed in Appendix A to the permit. The rules that govern these activities were revised since the last permit was issued, so the citations in the permit were updated in the permit but the activities did not change.

4. Permit fee assessment

This permit action includes an administrative amendment application that was subject to a permit application fee as required by Minn. R. 7002.0019. However, no additional points apply to the action.

5. Conclusion

Based on the information provided by ALUDEC USA, Inc. the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05301088-101 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff members on permit team: Peggy Bartz (permit engineer)
Sarah Sevcik (peer reviewer)
Joe Handtmann (data coordinator)
Beckie Olson (permit writing assistant)
Laurie O'Brien (administrative support)

Tempo Activities: Administrative Amendment (IND20210001)

Attachments: 1. Subject item changes
2. Requirements report

Attachment 1 – Subject item changes

The following subject items were removed from the facility since the last permit was issued and have therefore been removed from the permit:

Subject Item ID	Description
EQUI 1	#129 Injection Molding Machine
EQUI 2	#130 Injection Molding Machine
EQUI 10	Screen Press (451)
EQUI 13	Screen Press (453)
EQUI 15	Grinder (920)
EQUI 16	Grinder (919)
EQUI 19	Cure Oven (362)
EQUI 20	Paint Booth (325)
EQUI 21	Paint Booth (324)
EQUI 47	Paint Booth (317)
EQUI 50	Pad Printing Machine No. 229
EQUI 58	Pad Printer Tool Washer 442
EQUI 63	Robotic Paint Booth
EQUI 64	#101 Injection Molding Machine
EQUI 65	#102 Injection Molding Machine
EQUI 66	#103 Injection Molding Machine
EQUI 68	#105 Injection Molding Machine
EQUI 69	#106 Injection Molding Machine
EQUI 70	#107 Injection Molding Machine
EQUI 71	#108 Injection Molding Machine
TREA 1	Fabric Filter
TREA 2	Panel Filter
TREA 4	Panel Filter
TREA 5	Panel Filter
TREA 16	Panel Filter
STRU 1	Stack/Vent
STRU 10	Stack/Vent
STRU 21	Stack/Vent

The following subject items were installed since the last permit was issued and have therefore been added to the permit:

Subject Item ID	Description
EQUI 89	Screen Press (#471)
EQUI 94	Screen Press (#472)
EQUI 100	#135 Injection Molding Machine

Attachment 2 – Requirements Report

SI Id	Sequence	Requirement
TFAC 1	2	The Permittee shall not use any Methyl Ethyl Ketone in paint thinners and/or clean up solvents in EQUIs 5-14, EQUIs 17-19, EQUIs 22-43, EQUI 48, EQUI 49, EQUI 51-54, EQUI 90, EQUI 92, EQUI 93, and EQUIs 94-98. A Material Safety Data Sheet (or equivalent) shall be kept for each material used. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001]
TFAC 1	4	Parts Recordkeeping. The Permittee shall keep documentation on-site for all plastic parts coated that demonstrate whether or not the parts will be used in business machines as defined in 40 CFR pt. 60, subp. TTT (e.g., product code, client name/ID, etc.). [Minn. R. 7007.0800, subps. 4-5]
TFAC 1	1240	Equipment Labeling: The Permittee shall permanently affix a unique number to each emissions unit for tracking purposes. Each number shall correlate the unit to the appropriate Subject Item number used in this permit. 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. If equipment is added, it shall be given a new unique number; numbers from replaced or removed equipment shall not be reused. [Minn. R. 7007.0800, subp. 2(A)]
TFAC 1	1245	Equipment Inventory: The Permittee shall maintain a written list of all emissions units and control equipment on site. The list shall include the type of equipment, manufacturer and model number (if available), unique ID number (assigned and affixed as required by this permit), the corresponding TREA number used to control the unit (if applicable), and dates of installation, modification, and construction. For paint booths, the list shall also include the type of coating (finish or non-finish), spray technology, the manufacturer specified transfer efficiency, the capture efficiency of the booth (100% or 80%), and the spray capacity in gal/hr. The Permittee shall update the list to include any replaced, modified, or changed equipment prior to making the change. For equipment that is replaced, modified or changed, the Permittee shall complete an evaluation to determine if a permit amendment is needed as detailed at COMG 7 and shall include a record of the evaluation as part of the equipment list. [Minn. R. 7007.0800, subp. 2(A)]
TFAC 1	1260	Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in Appendices A. Insignificant Activities and General Applicable Requirements, Appendix B. New Source Performance Standard Calculations: 40 CFR pt. 60, subp. TTT, Appendix C. Maximum Contents and Process Rates, and Appendix D. MPCA-Approved Emissions Factors for Injection Molding. [Minn. R. 7007.0800, subp. 2(A) & (B)]
TFAC 1	1380	The Permittee must comply with Minn. Stat. 116.385. The Permittee may not use trichloroethylene at its permitted facility after June 1, 2022, including in any manufacturing, processing, or cleaning processes, except as described in Minn. Stat. 116.385, subd. 2(b) and 4. This is a state-only requirement and is not enforceable by the U.S. Environmental Protection Agency (EPA) Administrator and citizens under the Clean Air Act. [Minn. Stat. 116.385]
TFAC 1	1390	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. This permit shall not alter or affect the liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance. [Minn. R. 7007.1800(A)(2)]
TFAC 1	1400	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]
TFAC 1	1410	Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated. [Minn. R. 7007.0800, subp. 16(J), Minn. R. 7007.0800, subp. 2(A) & (B)]

SI Id	Sequence	Requirement
TFAC 1	1420	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 control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices 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 practices, and the records kept to demonstrate plan implementation. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 16(J)]
TFAC 1	1430	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]
TFAC 1	1440	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]
TFAC 1	1450	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]
TFAC 1	1490	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)]
TFAC 1	1500	The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16. [Minn. R. 7007.0800, subp. 16]
TFAC 1	1510	Monitoring Equipment Calibration - The Permittee shall either: <ol style="list-style-type: none"> 1. Calibrate or replace required monitoring equipment every 12 months; or 2. Calibrate at the frequency stated in the manufacturer's specifications. For each monitor, the Permittee shall maintain a record of all calibrations, including the date conducted, and any corrective action that resulted. The Permittee shall include the calibration frequencies, procedures, and manufacturer's specifications (if applicable) in the Operations and Maintenance Plan. Any requirements applying to continuous emission monitors are listed separately in this permit. [Minn. R. 7007.0800, subp. 4(D)]
TFAC 1	1520	Operation of Monitoring Equipment: Unless noted elsewhere in this permit, 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)]
TFAC 1	1530	Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, for 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)]
TFAC 1	1610	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)]
TFAC 1	1620	If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format. [Minn. R. 7007.1200, subp. 4]

SI Id	Sequence	Requirement
TFAC 1	1630	<p>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.</p> <p>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]</p>
TFAC 1	1640	<p>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.</p> <p>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]</p>
TFAC 1	1650	<p>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]</p>
TFAC 1	1670	<p>Notification of Deviations Endangering Human Health or the Environment Report: Within two 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:</p> <ol style="list-style-type: none"> 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]
TFAC 1	1680	<p>The Permittee must submit a semiannual deviations report : Due semiannually, by the 30th of January and July. The first semiannual report submitted by the Permittee must 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. Submit this on form DRF-2 (Deviation Reporting Form). If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(B)(2)]</p>
TFAC 1	1700	<p>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.</p> <p>Upon adoption of a new or amended federal applicable requirement, and if there are three or more years remaining in the permit term, the Permittee shall file an application for an amendment within nine months of promulgation of the applicable requirement, pursuant to Minn. R. 7007.0400, subp. 3. [Minn. R. 7007.0400, subp. 3, Minn. R. 7007.1150 - 7007.1500]</p>
TFAC 1	1730	<p>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). Performance testing deadlines from the General Provisions of 40 CFR pt. 60 and pt. 63 are examples of deadlines for which the MPCA does not have authority to grant extensions and therefore do not meet the requirements of Minn. R. 7007.1400, subp. 1(H). [Minn. R. 7007.1400, subp. 1(H)]</p>
TFAC 1	1740	<p>The Permittee must submit a compliance certification : Due annually, by the 31st of January (for the previous calendar year). Submit this on form CR-04 (Annual Compliance Certification Report). This report covers all deviations experienced during the calendar year. If no deviations have occurred, submit the signed report certifying that there were no deviations. [Minn. R. 7007.0800, subp. 6(D)]</p>

SI Id	Sequence	Requirement
TFAC 1	4100	Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. Submit in a format specified by the Commissioner. [Minn. R. 7019.3000-7019.3100]
TFAC 1	4110	Emission Fees: due 30 days after receipt of an MPCA bill. [Minn. R. 7002.0005-7002.0085]
TFAC 1	4120	The Permittee shall submit an annual report by the 31st of January. The report shall describe the changes made at the Facility during the previous calendar year using the latest MPCA application forms. The report shall include the emission unit, stack/vent, group, and control equipment data for any new, modified, or replaced units or control devices. The report shall be submitted with the annual Compliance Certification required by this permit. As part of the Annual Report, the Permittee shall verify and certify that the Facility has maintained minor source status for New Source Review. [Minn. R. 7007.0800, subp. 2(A)]
COMG 1	3680	Opacity <= 20 percent opacity. This limit applies separately to each subject item in COMG 1. [Minn. R. 7011.0715, subp. 1(B)]
COMG 1	3690	Particulate Matter <= 0.30 grains per 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 subject item in COMG 1. [Minn. R. 7011.0715, subp. 1(A)]
COMG 2	1	The requirements of COMG 2 apply separately to each Fabric Filter in COMG 2. [Minn. R. 7007.0800, subp. 2(A)]
COMG 2	4180	If the Permittee replaces any existing fabric filter, adds new fabric filters, or modifies the fabric filters listed in COMG 2, such equipment is subject to all of the requirements of COMG 2. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 2	17610	The Permittee shall vent emissions from each emission unit in COMG 6 to a fabric filter meeting the requirements of COMG 2 whenever the emission unit operates, and operate and maintain each fabric filter at all times that any emissions are vented to it. The Permittee shall document periods of non-operation of the control equipment in COMG 2 whenever any emissions unit in COMG 6 is operating. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 2	18480	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 99 percent control efficiency. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 2	18490	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron and PM < 10 micron >= 99 percent control efficiency. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 2	18530	The Permittee shall operate and maintain the fabric 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]
COMG 2	18560	Pressure Drop: Recordkeeping. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit. [CAAA of 1990, Minn. R. 7007.0800, subps. 4-5, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 2	18565	Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur: - the recorded pressure drop is outside the required operating range; or - the fabric filter or any of its components are found during the inspections to need repair. Corrective actions shall return the pressure drop to within the permitted range, and/or 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 fabric 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. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
COMG 2	18570	Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the monitored fabric filter is in operation. [Minn. R. 7007.0800, subp. 4]
COMG 2	19640	The Permittee shall calibrate or replace the pressure drop monitor at least once every 12 months and shall maintain a written record of any action resulting from the calibration. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]
COMG 3	3450	Opacity <= 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity. This limit applies separately to each subject item in COMG 3. [Minn. R. 7011.0610, subp. 1(A)(2)]
COMG 3	3460	Particulate Matter <= 0.30 grains per 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 subject item in COMG 3. [Minn. R. 7011.0610, subp. 1(A)(1)]
COMG 3	3512	Fuel type: Natural gas only, by design. [Minn. R. 7005.0100, subp. 35a]
COMG 3	3517	The Permittee shall keep records of fuel purchases showing fuel types on monthly basis. [Minn. R. 7007.0800, subp. 5]
COMG 4	1	The requirements of COMG 4 apply separately to each Mat or Panel Filter in COMG 4. [Minn. R. 7007.0800, subp. 2(A)]
COMG 4	4180	If the Permittee replaces any existing panel filter, adds new panel filters, or modifies the panel filters listed in COMG 4, such equipment is subject to all of the requirements of COMG 4. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 4	17610	The Permittee shall vent emissions from any spray booth in COMG 5 to panel filters meeting the requirements of COMG 4 whenever the spray booth operates, and operate and maintain the panel filter at all times that any emissions are vented to the controls. The Permittee shall document periods of non-operation of the control equipment in COMG 4 whenever any spray booth is operating. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 4	18640	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for Particulate Matter >= 74.0 percent control efficiency. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 4	18650	The Permittee shall operate and maintain control equipment such that it achieves a control efficiency for PM < 2.5 micron and PM < 10 micron >= 74.0 percent control efficiency. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 4	18670	The Permittee shall operate and maintain the panel 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]
COMG 4	18680	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: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
COMG 4	18690	Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturer's specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections. [Minn. R. 7007.0800, subp. 14, Minn. R. 7007.0800, subp. 4, Minn. R. 7007.0800, subp. 5]

SI Id	Sequence	Requirement
COMG 4	18700	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. 14, Minn. R. 7007.0800, subp. 2(A), Minn. R. 7007.0800, subp. 5]
COMG 4	18710	Hood Certification and Evaluation: The Permittee shall maintain the most current record of the hood evaluation and certification on site. The control device hood must be evaluated by a testing company as specified in Minn. R. 7011.0072, subp. 2(A) and must conform to the design and operating requirements listed in Minn. R. 7011.0072, subps. 2(B) and 3. The hood certification must address how cross-drafts are accommodated in the design (e.g., higher face velocity, oversized hood, etc.) and the Permittee shall certify this as specified in Minn. R. 7011.0072, subps. 2 and 3. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
COMG 4	18720	Annual Hood Evaluation: The Permittee shall measure and record at least once every 12 months the fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow parameter that was measured during the most recent hood certification to verify the hood design and operation parameters meet or exceed the parameters measured during the most recent hood evaluation conducted according to Minn. R. 7011.0072, subps. 2 & 3 as required by Minn. R. 7011.0072, subp. 4. The Permittee shall maintain a copy of the annual evaluations on site for 5 years. [Minn. R. 7007.0800, subp. 2(A), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000]
COMG 5	1	All spray booths at the facility, including existing, modified, or new paint/spray booths or paintlines are subject to the requirements of COMG 5. The requirements of COMG 5 apply separately to each spray booth in COMG 5. [Minn. R. 7007.0800, subp. 2(A)]
COMG 5	3	Operating Scenarios: The Permittee is authorized to change any of their existing paint booths such that they become affected facilities under 40 CFR pt. 60, subp. TTT (NSPS for surface coating of plastic parts for business machines). All booths must operate in compliance with all permit limits (e.g., COMG 7, etc.). Under Operating Scenario 1, the booths are not subject to the NSPS. All booths fall into this scenario at the time of permit issuance. Under Operating Scenario 2, the coatings used in the booth are subject to the NSPS limits. Requirements that always apply are listed first, prior to both operating scenario requirements. [Minn. R. 7007.0800, subp. 11]
COMG 5	4	Operating Scenario Recordkeeping. For each paint booth listed in COMG 5, the Permittee shall record and maintain a written log which documents the scenario under which the paint booth is operating at any given time. The log shall be updated whenever any paint booth changes from one scenario to another, and it shall indicate which scenario is being used and the date and time of the operational change. Once a paint booth has ever operated in Scenario 2, the Permittee shall record and maintain a VOC materials usage log for the paint booth that documents which VOC containing materials were used under each operating scenario. The Permittee shall record the name of the material and the amount used. The log shall correlate the materials used to the Parts Recordkeeping required in the TFAC section of this permit. [Minn. R. 7007.0800, subp. 11]
COMG 5	7	The Permittee shall vent emissions from all paint booths, including existing, modified, or new paint/spray booths, to control equipment meeting the permit requirements of COMG 4. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 5	33	Transfer Efficiency: greater than or equal to 75 percent transfer efficiency for all spray guns. Transfer efficiency, for the purposes of this permit, is defined as the percentage of the total solids sprayed that is deposited either on the product being painted, the fixtures, or the masks being used to paint the parts (but not on the floor or booth structure). [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]

SI Id	Sequence	Requirement
COMG 5	34	The Permittee shall use High Volume Low Pressure (HVLP) spray guns for all non-finish coating operations. Each spray booth shall be labeled as to whether it is used for finish or non-finish coating. The labels shall be updated any time the coating type changes. [CAAA of 1990.& Stip Agreement, 4/20/2001]
COMG 5	3680	Operating Scenario 1: Opacity <= 20 percent opacity. This limit applies to each emissions unit in COMG 5 individually. [Minn. R. 7011.0715, subp. 1(B)]
COMG 5	3690	Operating Scenario 1: Particulate Matter <= 0.30 grains per 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 to each emissions unit in COMG 5 individually. [Minn. R. 7011.0715, subp. 1(A)]
COMG 5	3900	Operating Scenario 2: The remaining permit conditions at COMG 5 are for operating scenario 2. The requirements under this NSPS Operating Scenario apply to each spray booth in COMG 5 in which plastic parts for use in the manufacture of business machines receive prime coats, color coats, texture coats, or touch-up coats. [40 CFR 60.720(a), Minn. R. 7011.2580]
COMG 5	4000	Report: due before end of each 36 months, next due on 12/31/2022 and every 36 months thereafter. The Permittee shall conduct engineering studies to verify the transfer efficiency of the spray guns. The Permittee shall submit the results of each study in this report. [Minn. R. 7007.0800, subp 2,4]
COMG 5	4550	For any unit newly constructed that is subject to 40 CFR pt. 60, subp. TTT, the Permittee shall submit a notification of date construction began: Due 30 calendar days after Date of Construction Start (or reconstruction). Submit the name and number of the Subject Item and the date construction began. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(1), Minn. R. 7019.0100, subp. 1]
COMG 5	4560	For any unit newly constructed that is subject to 40 CFR pt. 60, subp. TTT, the Permittee shall submit a notification of the actual date of initial startup: Due 15 calendar days after Initial Startup Date. The notification shall be submitted electronically on Form CS-02. [40 CFR 60.7(a)(3), Minn. R. 7019.0100, subp. 1]
COMG 5	6760	Definitions. The following select terms are included from 40 CFR Section 60.721 for clarity. -Business machine means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information, or convert sound into electrical impulses for transmission. -Nominal 1-month period means either a calendar month, 30-day month, accounting month, or similar monthly time period that is established prior to the performance test required by 40 CFR Section 60.723. -Coating solids applied means the coating solids that adhere to the surface of the plastic business machine part being coated. [40 CFR 60.721(a), Minn. R. 7011.2580]
COMG 5	6770	The Permittee shall comply with the emission limitations under 40 CFR Section 60.721 on and after the date on which the initial performance test, required by Sections 60.8 and 60.723, is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first. [40 CFR 60.722(a), Minn. R. 7011.2580]
COMG 5	6780	Volatile Organic Compounds <= 1.5 milligrams per liter of solids coating applied from prime coating of plastic parts for business machines. [40 CFR 60.722(a)(1), Minn. R. 7011.2580]
COMG 5	6790	Volatile Organic Compounds <= 1.5 milligrams per liter of solids coating applied from color coating of plastic parts for business machines. [40 CFR 60.722(a)(2), Minn. R. 7011.2580]
COMG 5	6800	Volatile Organic Compounds <= 2.3 milligrams per liter of solids coating applied from texture coating of plastic parts for business machines. [40 CFR 60.722(a)(3), Minn. R. 7011.2580]
COMG 5	6810	Volatile Organic Compounds <= 2.3 milligrams per liter of solids coating applied from touch-up coating of plastic parts for business machines. [40 CFR 60.722(a)(4), Minn. R. 7011.2580]
COMG 5	6820	All VOC emissions that are caused by coatings applied in each affected facility, regardless of the actual point of discharge of emissions into the atmosphere, shall be included in determining compliance with the VOC emission limits under 40 CFR pt. 60, subp. TTT. [40 CFR 60.722(b), Minn. R. 7011.2580]
COMG 5	6830	Initial Performance Test. For each affected facility, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, the Permittee shall conduct an initial performance test according to the Performance Test Procedures given in this permit. [40 CFR 60.723(b), 60.8(a), Minn. R. 7011.2580]
COMG 5	6840	Monthly Performance Test. The Permittee shall conduct a performance test each nominal 1-month period for each affected facility following the Performance Test Procedures given in this permit. [40 CFR 60.723(b), Minn. R. 7011.2580]

SI Id	Sequence	Requirement
COMG 5	6850	<p>Performance Test Procedures.</p> <p>1) The Permittee shall determine the composition of coatings by analysis of each coating, as received, using Reference Method 24, from data that have been determined by the coating manufacturer using Reference Method 24, or by other methods approved by the Administrator.</p> <p>2) The Permittee shall determine the volume of coating and the mass of VOC used for dilution of coatings from company records during each nominal 1-month period. If a common coating distribution system serves more than one affected facility or serves both affected and nonaffected spray booths, the Permittee shall estimate the volume of coatings used at each facility by using procedures approved by the Administrator.</p> <p>3) The Permittee shall use one of the following methods for demonstrating compliance with the VOC limits.</p> <p>A. The Permittee shall calculate the volume-weighted average mass of VOCs in coatings emitted per unit volume of coating solids applied (N) at each coating operation (i.e., for each type of coating (prime, color, texture, and touch-up) used) during each nominal 1-month period for each affected facility using the procedures detailed in Appendix B of this permit. Each 1-month calculation is considered a performance test.</p> <p>OR</p> <p>B. If no VOCs are added to coatings during application or distribution (e.g., received coatings are not mixed with other materials prior to application), the Permittee shall demonstrate that each coating material as received is less than the limits specified in this permit by dividing the VOC content (in kg VOC/l of solids), as received, by the lowest transfer efficiency at which the coating is applied. [40 CFR 60.723(b)(2)(i), Minn. R. 7011.2580]</p>
COMG 5	6860	<p>Recordkeeping. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emissions units including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b), Minn. R. 7019.0100, subp. 1]</p>
COMG 5	6870	<p>Recordkeeping. The Permittee shall maintain records of all data and calculations used to determine monthly VOC emissions from each coating operation for each affected facility as specified in 40 CFR Section 60.7(d) for a period of at least two years. Regardless of this requirement, Minn. R. 7007.0800, subp. 5(C) requires that all records be retained for 5 years from the date of generation. [40 CFR 60.724(d), Minn. R. 7011.2580]</p>
COMG 5	6880	<p>Initial Performance Test Report. The Permittee shall submit a report to the MPCA of the initial performance test results postmarked within 45 days of the end of the initial nominal 1-month period. The Permittee shall include the following data in the report:</p> <p>1) Except as provided for in the next item, the volume-weighted average mass of VOCs emitted to the atmosphere per volume of applied coating solids (N) for the initial nominal 1-month period for each coating operation from each affected facility.</p> <p>2) For each affected facility where compliance is determined under option 3(B) under the Performance Test Procedures, a list of the coatings used during the initial nominal 1-month period, the VOC content of each coating calculated from data determined using Reference Method 24, and the lowest transfer efficiency at which each coating is applied during the initial nominal 1-month period. [40 CFR 60.724(a)(c), Minn. R. 7011.2580]</p>

SI Id	Sequence	Requirement
COMG 5	6890	<p>Quarterly and Semiannual Reporting. The Permittee shall submit the following reports postmarked within 10 days after the end of the period specified below.</p> <p>1) The Permittee shall report the volume-weighted average mass of VOCs per unit volume of coating solids applied for each coating operation for each affected facility during each nominal 1-month period in which the facility is not in compliance with the applicable emission limits specified in Section 60.722. Reports of noncompliance shall be submitted on a quarterly basis, occurring every 3 months following the initial report; and</p> <p>2) The Permittee shall submit statements that each affected facility has been in compliance with the applicable emission limits specified in Section 60.722 during each nominal 1-month period. Statements of compliance shall be submitted on a semiannual basis. [40 CFR 60.724(b), Minn. R. 7011.2580]</p>
COMG 6	3680	The Permittee shall vent emissions from all grinders, including existing, modified, or new grinders, to control equipment meeting the requirements of COMG 2. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]
COMG 6	3690	Opacity <= 20 percent opacity. This limit applies separately to each subject item in COMG 6. [Minn. R. 7011.0715, subp. 1(B)]
COMG 6	4170	Particulate Matter <= 0.30 grains per 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 subject item in COMG 6. [Minn. R. 7011.0715, subp. 1(A)]
COMG 7	2	<p>Volatile Organic Compounds <= 90.0 tons per year 12-month rolling sum to be calculated by the 10th day of each month for the previous 12-month period as described later in this permit. VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement in COMG 7.</p> <p>All non-combustion VOC-emitting equipment at the facility, other than activities listed in Appendix A of this permit, are subject to this limit. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
COMG 7	3	<p>PM < 10 micron <= 50.0 tons per year 12-month rolling sum to be calculated by the 10th day of each month for the previous 12-month period as described later in this permit. All particulate matter shall be conservatively assumed to be particulate matter less than 10 microns and particulate matter less than 2.5 microns. Solids contents for each material shall be determined as described under the Material Content requirement in COMG 7.</p> <p>All particulate-emitting coating equipment at the facility are subject to this limit. [CAAA of 1990, Minn. R. 7007.3000, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2), Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) & Stip Agreement 4/20/2001, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
COMG 7	4	<p>HAPs - Total <= 20.0 tons per year 12-month rolling sum to be calculated by the 10th day of each month for the previous 12-month period. HAP contents for each HAP-containing material (e.g., coatings, inks, gun cleaner,...) shall be determined as described under the Material Content requirement in COMG 7.</p> <p>All non-combustion HAP-emitting equipment at the facility, other than activities listed in Appendix A of this permit, are subject to this limit. [Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
COMG 7	5	<p>HAPs - Single <= 8.0 tons per year 12-month rolling sum to be calculated by the 10th day of each month for the previous 12-month period. HAP contents for each HAP-containing material (e.g., coatings, inks, gun cleaner,...) shall be determined as described under the Material Content requirement in COMG 7.</p> <p>All non-combustion HAP-emitting equipment at the facility, other than activities listed in Appendix A of this permit, are subject to this limit. [Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>

SI Id	Sequence	Requirement
COMG 7	6	<p>VOC and HAP PreCaps: If the Permittee replaces any existing non-combustion VOC and/or HAP-emitting equipment, adds new VOC and/or HAP-emitting equipment, or modifies the existing equipment listed in COMG 7, such equipment is subject to these permit limits as well as all of the requirements of COMG 7. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. The Permittee is not required to repeat VOC calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
COMG 7	7	<p>PM/PM10/PM2.5 PreCap: If the Permittee replaces any existing PM-emitting coating equipment, adds new PM-emitting coating equipment, or modifies the existing equipment, such equipment is subject to the COMG 7 permit limit as well as all of the requirements of COMG 7, COMG 4, and COMG 5. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. For modifications that solely involve equipment covered by the PM/PM10/PM2.5 PreCap, the Permittee is not required to repeat particulate calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit. [Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
COMG 7	9	<p>Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain the following: 1) the total quantity of each coating and other VOC, HAP, and solids-containing materials used at the facility (e.g., 50 gallons of coating A); and 2) the quantity of Acrylic and ABS resin used.</p> <p>This shall be based on either written usage logs or records of material deliveries. [Minn. R. 7007.0800, subps. 4-5, Title I Condition: Avoid major modification under 40 CFR 52.21(b)(2) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 52.21(b)(1)(i) and Minn. R. 7007.3000, Title I Condition: Avoid major source under 40 CFR 63.2, To avoid major source under 40 CFR 70.2 & Minn. R. 7007.0200]</p>
COMG 7	10	<p>Monthly Recordkeeping. By the 10th of the month, the Permittee shall calculate and record the following: 1) For activities where emissions are based on content of raw materials, the total usage of each solids, HAP, and VOC-containing material for the previous calendar month using the daily usage records. This record shall also include the VOC, Total HAP, each individual HAP, and solids contents of each material as determined by the Material Content requirement of this permit. 2) The total usage of both Acrylic and ABS resin for the previous calendar month using the daily records. 3) The VOC, Total HAP, each individual HAP, and PM/PM10/PM2.5 emissions for the previous month using the formulas specified in this permit. 4) The 12-month rolling sum VOC, Total HAP, each individual HAP, and PM/PM10/PM2.5 emissions for the previous 12-month period by summing the monthly VOC, Total HAP, each individual HAP, and PM/PM10/PM2.5 emissions data for the previous 12 months. [Minn. R. 7007.0800, subps. 4-5]</p>

SI Id	Sequence	Requirement
COMG 7	11	<p>Monthly Calculation -- VOC Emissions.</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> $\text{VOC (tons/month)} = V - W + AA$ $V = (A1 \times B1) + (A2 \times B2) + (A3 \times B3) + \dots$ $W = (C1 \times D1) + (C2 \times D2) + C3 \times D3) + \dots$ $AA = ((EF1 \times P1) + (EF2 \times P2))/2000$ <p>where:</p> <p>V = total VOC used in tons/month;</p> <p>A# = amount of each VOC-containing material used, in tons/month;</p> <p>B# = weight percent VOC in A#, as a fraction;</p> <p>W = the amount of VOC shipped in waste, in tons/month;</p> <p>C# = amount, in tons/month, of each VOC-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero;</p> <p>D# = weight percent of VOC in C#, as a fraction;</p> <p>AA = total VOC emitted from all injection molding machines, in tons/month;</p> <p>EF1 = VOC emissions factor for ABC injection molding machines, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factor at the time of permit issuance is listed in Appendix D of this permit;</p> <p>P1 = total pounds of ABS resin used, in pounds/month;</p> <p>EF2 = VOC emissions factor for Acrylic injection molding, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factor at the time of permit issuance is listed in Appendix D of this permit; and</p> <p>P2 = total pounds of Acrylic resin used, in pounds/month. [Minn. R. 7007.0800, subps. 4-5]</p>
COMG 7	13	<p>Monthly Calculation -- PM/PM10/PM2.5 Emissions. The Permittee shall calculate PM/PM10/PM2.5 emissions from the spray booths using the following equations:</p> $B = G \times (1-CE) \times (1-TE)$ $G = (H1 \times J1) + (H2 \times J2) + (H3 \times J3) + \dots$ <p>where:</p> <p>B = total PM/PM10/PM2.5 emissions in tons/month.</p> <p>G = total solids used in pounds/month;</p> <p>CE = overall control efficiency, as a fraction. This shall be 0.74;</p> <p>TE = transfer efficiency, as a fraction, as defined in this permit. This shall be 0.75, unless otherwise approved by the MPCA in writing;</p> <p>H# = amount of each solids-containing material sprayed, in pounds/month; and</p> <p>J# = weight percent solids in H#, as a fraction.</p> <p>If different spray booths have different approved transfer efficiencies, the calculation shall be completed separately for each type of booth and then summed to obtain the total PM/PM10/PM2.5 emissions. [Minn. R. 7007.0800, subps. 4-5]</p>

SI Id	Sequence	Requirement
COMG 7	14	<p>Monthly Calculation -- HAP Emissions. The Permittee shall calculate each individual HAP and total HAP emissions using the following equations:</p> <p>HAP Emissions (tons/month) = X - Y + Z $X = (K1 \times L1) + (K2 \times L2) + (K3 \times L3) + \dots$ $Y = (M1 \times N1) + (M2 \times N2) + (M3 \times N3) + \dots$ $Z = ((EF1 \times P1) + (EF2 \times P2))/2000$</p> <p>Where:</p> <p>X = the amount of each pollutant (either total HAP or each individual HAP), used, in tons/month; K# = Amount of each HAP-containing material used in the previous month, in tons/month; L# = weight percent of each individual or total HAP in K#, as a fraction (e.g., 50% is 0.50); Y = the amount of each pollutant (either total HAP or each individual HAP) shipped in waste, in tons/month; M# = amount, in tons/month, of each HAP-containing waste material shipped. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero; N# = weight percent of each individual or total HAP in M#, as a fraction; Z = the amount of each pollutant (either total HAP or each individual HAP) emitted from all injection molding machines, in tons/month; EF1 = the appropriate HAP emissions factor (total HAP or each individual HAP) for ABC injection molding machines, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factors at the time of permit issuance are listed in Appendix D of this permit; P1 = total pounds of ABS resin used, in pounds/month; EF2 = the appropriate HAP emissions factor (total HAP or each individual HAP) for Acrylic injection molding, in lbs/lb of resin, which shall be the most recent MPCA-approved emission factor. The most recent MPCA-approved factors at the time of permit issuance are listed in Appendix D of this permit; and P2 = total pounds of Acrylic resin used, in pounds/month. [Minn. R. 7007.0800, subps. 4-5]</p>
COMG 7	16	<p>Material Content: VOC, HAPs, and Solids (PM/PM10/PM2.5) contents in all materials shall be determined by the Material Safety Data Sheet (MSDS) or Certificate of Analysis (COA) provided by the supplier for each material used. If a material content range is given on the MSDS or COA, the highest number in the range shall be used in all permit calculations for COMG 7. When using the MSDS or COA as the basis of calculating particulate emissions, the conservative assumption is made that PM consists entirely of PM less than 10 microns and PM less than 2.5 microns. Other alternative methods approved by the MPCA may be used to determine the VOC, HAPs, and solids contents. The Commissioner reserves the right to require the Permittee to determine the VOC, HAPs, and solids contents of any material, according to EPA and ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS or COA. [Minn. R. 7007.0800, subps. 4-5]</p>
COMG 7	18	<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials and process rates when determining the annual and short term potential to emit of units in COMG 7. These assumptions are listed in Appendix C of this permit. Changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150. [Minn. R. 7005.0100, subp. 35a]</p>