

AIR POLLUTION CONTROL CONSTRUCTION PERMIT AND OPERATION PERMIT

EI FACILITY NO: 617056660

PERMIT NO.: 07-SJZ-075,
617056660-P10

TYPE: Part 70

In compliance with the provisions of Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code,

Name of Source: 3M Menomonie Optical Systems Division

Street Address: 1425 Stokke Parkway,
Menomonie, Dunn County, Wisconsin

Responsible Official, & Title: James M. McSweeney, Plant Manager

is authorized to operate in conformity with the conditions herein.

THIS OPERATION PERMIT EXPIRES

[Section NR 407.09(1)(b)1., Wis. Adm. Code] _____ **October 1, 2012**

Construction permit (07-SJZ-075) will expire the same day the operation permit (617056660-P10) expires.

A renewal application must be submitted at least 6 months, but not more than 18 months, prior to this expiration date [ss. 285.66(3)(a), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

No permittee may continue operation of a source after the operation permit expires, unless the permittee submits a timely and complete application for renewal of the permit. If you submit a timely and complete application for renewal, the existing operation permit will not expire until the renewal application has been finally acted upon by DNR. [ss. 227.51(2), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

This authorization requires compliance by the permit holder with the emission limitations, monitoring requirements and other terms and conditions set forth in Parts I, II, III hereof.

Dated at Eau Claire, Wisconsin

_____ **January 31, 2008**

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary

By _____ /s/ TW 01/31/08

Tom Woletz
Air Team Supervisor

PREAMBLE

An Asterisk (*) throughout this document denotes legal authority, limitations and conditions which are not federally enforceable.

The following permits, orders, etc., are adopted, under ss. 285.65(3), Wis. Stats., and NR 407.09(2)(d), Wis. Adm. Code, by Permit 617056660-P10 which then becomes the primary enforceable document:

617056660-P01, 04-SJZ-142

Historical Summary of Permits/Orders Issued to the Facility:

Permit/Order Number	Issuance Date	Sources Covered & Description¹	Permits Adopted
617056660-P01	12/21/04	Total Facility	NS-79-17-110, MIA-10-KJC-83-17-023, 89-TEW-616, 94-MMH-610, 94-MMH-611, 95-MMH-601, 95-MMH-607, 95-MMH-616, 95-MMH-616-R1, 95-MMH-616-R1-OP, 96-MMH-607, 97-MMH-605, 00-JAS-606, 01-JAS-609, 01-JAS-630, 03-JAJ-054, 03-JAJ-055, 03-JAJ-055-OP, 03-JAJ-105, 03-JAJ-240, 04-SJZ-142, 04-SJZ-145-EXM
04-SJZ-142	12/21/04	Spray/Paint Booth Coating, Ceramic Fiber Making, Chromium Plating, R&D/Pilot/Development Projects, Web Coating	None
617056660-P10	01/31/08	Total Facility	617056660-P01, 04-SJZ-142
07-SJZ-075	01/31/08	Spray/Paint Booth Coating, Ceramic Fiber Making, Chromium Plating, R&D/Pilot/Development Projects, Web Coating	None

¹ – Total Facility refers to all existing units at the facility at the time of issuance of the permit listed.

Stack and Process Index

1. Process P01, Stack(s) S01 — 21 MMBtu/hr Kewaunee Boiler-Installed 1996
2. Process P02, Stack(s) S02 — 13.3 MMBtu/hr Kewaunee Boiler-Installed 1974
3. Process P03, Stack(s) S03 — 16.7 MMBtu/hr Cleaver Brooks Boiler-Installed 1980
4. Process P04, Stack(s) S04 — 10.5 MMBtu/hr ABCO Fire-tube Boiler-Installed 1989
5. Process P05, Stack(s) S05 — 10.5 MMBtu/hr ABCO Fire-tube Boiler-Installed 1989
6. Process P06, Stack(s) S06, S36 — MRC 5 Resin Coating Line-Installed 2003
7. Process P07, Stack(s) S07, S22, S24 — Tape Coating-Installed 1983
8. Process P08, Stack(s) S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003
9. Process P09, Stack(s) S09, Control Device(s) C01 — Automated Spray Coating Line-Installed 1996
10. Process P10, Stack(s) S10, S20 — MRC 1 Resin Coating Line-Last Modified 2000
11. Process P11, Stack(s) S11, S21 — MRC 2 Resin Coating Line-Last Modified 2000

12. Process P12, Stack(s) S12 — MRC 3 Resin Coating Line-Last Modified 2000
13. Process P13, Stack(s) S13, S23 — MRC 4 Resin Coating Line-Last Modified 2000
14. Process P14, Stack(s) S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
15. Process P15, Stack(s) S15, S25, S43, S44, S45, Control Device(s) C05 — CF1 Ceramic Fiber Making Process-Last Modified 2004
16. Process P16, Stack(s) S16, S26, S43, S44, S46, Control Device(s) C05 — CF2 Ceramic Fiber Making Process-Last Modified 2004
17. Process P17, Stack(s) S17, S27, S30, S50 — CF3 Ceramic Fiber Making Process-Last Modified 2004
18. Process P18, Stack(s) S18, S28 — CF4 Ceramic Fiber Making Process-Last Modified 2005
19. Process P19, Stack(s) S19, S29, S30, S43, S47, Control Device(s) C05 — CF5 Ceramic Fiber Making Process-Last Modified 2005
20. Process P21, Stack(s) S204, S210, S211, S212, S213 — MRC 6 Resin Coating Line-Installed 2005
21. Process P22, Stack(s) S40, S41, S42, S43, S48, Control Device(s) C05 — CF6 Ceramic Fiber Firing-Last Modified 2003
22. Process P23, Stack(s) S217 – GDL Line-Installed 2005
23. Process, P24, Stack(s) S219, S225, S226, S227, S228 – MRC 7 Resin Coating Line-Installed 2006
24. Process, P25, Stack(s) S230, S237, S238, S239 – MRC 8 Resin Coating Line-Installed 2007
25. Process, P26, Stack(s) S242, S245, S248, S249, S250 – MRC 9 Resin Coating Line-Installed 2007
26. Process P27, Stack(s) S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007
27. Process Pxx, Stack(s) Sxx – Athena Web Coating Line-To Be Installed
28. Process I9, Stack(s) S154 – F1 Line-Installed 2007

Insignificant Emission Units

- Boiler, Turbine, and HVAC System Maintenance
- Convenience Water Heating
- Demineralization and Oxygen Scavenging of Water for Boilers
- Fire Control Equipment
- Internal Combustion Engines Used for Warehousing and Material Transport
- Janitorial Activities
- Maintenance of Grounds, Equipment, and Buildings (lawn care, painting, etc.)
- Office Activities
- Pollution Control Equipment Maintenance
- Purging of Natural Gas Lines
- Sanitary Sewer and Plumbing Venting
- Electric chiller
- Non-contact cooling tower
- Fire Pump Engine (238,000 BTU/yr)
- Welding
- Converting (plant-wide) - this is an area where bulk product is converted into marketable/saleable products for packaging.
- Copper Plating Process (I1)
- E-Beam Line (I2)
- Thin Film Technology Resources (TFTR)
- Specialty Fibers & Composites (SF&C)-Ceramic Wafer Process
- Personal Care Division (PCD)
- Extrusion Line 1 (I3) - Personal Care & Related Products (PC&RP)

- ☒ Extrusion Line 2 (I4) - Personal Care & Related Products (PC&RP)
- ☒ Extrusion Line 3 (I5) - Personal Care & Related Products (PC&RP)
- ☒ Hot Melt Coater (I6) - Personal Care & Related Products (PC&RP)
- ☒ Elastic Coating 1 (I7) - Personal Care & Related Products (PC&RP)
- ☒ Elastic Coating 2 (I8) - Personal Care & Related Products (PC&RP)
- ☒ Information and Materials Security Department
- ☒ Proteus Group-Fuel Cell Research and Development Project
- ☒ Material Handling/Compounding in the C5 Tape division – raw materials are dumped manually and pneumatically conveyed to the compounder where they are mixed to produce a solvent-less adhesive which is pumped directly to the coating line.
- ☒ Semiconductor Wafer Planarization (SWP)
- ☒ Five (5) Wire Making Lines (notification submitted 09/02/2005 and 05/10/2006)
- ☒ DTM Line (notification submitted 09/16/2005)
- ☒ Mixing Facility in the GDL Line
- ☒ Plant Engineering Parts Washer (Safety Kleen)
- ☒ Ceramic Fibers Parts Washer (Safety Kleen)
- ☒ Two Parts Washers

The E-beam (I2), hot melt coater (I6), elastic coating 1 (I7), and elastic coating 2 (I8) are insignificant sources that are subject to the MACT standard for paper and other web coating in 40 CFR 63 Subpart JJJJ (63.3280-63.3420) because the MACT standard for paper and other web coating applies to all web coating operations regardless of emissions.

Permit Shield — Unless precluded by the Administrator of the US EPA, compliance with all emission limitations in this operation permit is considered to be compliance with all emission limitations established under ss. 285.01 to 285.87, Wis. Stats., and emission limitations under the federal clean air act, that are applicable to the source if the permit includes the applicable limitation or if the Department determines that the emission limitations do not apply. The following emission limitations were reviewed in the analysis and preliminary determination and were determined not to apply to this stationary source:

s. NR 440.67, Wis. Adm. Code: Ceramic fiber lines CF1 (P15), CF2 (P16), CF3 (P17), CF4 (P18), CF5 (P19), and CF6 (P22) are not subject to NSPS for Synthetic fiber production facilities because even though these processes meet the definition of sources regulated by NR 440.67, the maximum production of these processes is less than 500 Megagrams and therefore s. NR 440.67, Wis. Adm. Code requirements do not apply.

PARTS I and III — The headings for the areas in the permit are defined below. The legal authority for these limitations or methods follows them in [brackets].

Pollutant – This area will note which pollutant is being regulated by the permit.

Limitations – This area will list all applicable emission limitations that apply to the source, including case-by-case limitations such as Latest Available Control Techniques (LACT), Best Available Control Technology (BACT), or Lowest Achievable Emission Rate (LAER). It will also list any voluntary restrictions on hours of operation, raw material use, or production rate requested by the permittee to limit potential to emit.

Compliance Demonstration – The compliance demonstration methods outlined in this area may be used to demonstrate compliance with the associated emission limit or work practice standard listed under the corresponding **Limitations** column. The compliance demonstration area contains limits on parameters or other mechanisms that will be monitored periodically to ensure compliance with the limitations. The requirement to test as well as initial and periodic test schedules, if testing is required, will be stated here. Notwithstanding the compliance determination methods which the owner or operator of a source is authorized to use under ch. NR 439, Wis. Adm. Code, the Department may use any relevant information or appropriate method to determine a source's compliance with applicable emission limitations.

Reference Test Methods, Recordkeeping, and Monitoring Requirements – Specific USEPA Reference test methods or other approved test methods will be contained in this area and are the methods that must be used whenever testing is required. A reference test method will be listed even if no testing is immediately required. Also included in this area are any recordkeeping requirements and their frequency and reporting requirements. Accuracy of monitoring equipment shall meet, at a minimum, the requirements of s. NR 439.055(3) and (4), Wis. Adm. Code, as specified in Part II of this permit.

Condition Type – This area will specify other conditions that are applicable to the entire facility that may not be tied to one specific pollutant.

Conditions – Specific conditions usually applicable to the entire facility or compliance requirements.

Compliance Demonstration – This area contains monitoring and testing requirements and methods to demonstrate compliance with the conditions.

PART II — This section contains the general limitations that the permittee must abide by. These requirements are standard for most sources of air pollutants so they are included in this section with every permit.

PART III — PRE-APPROVED PROJECTS/FACILITY CHANGES – This section contains construction and operation requirements and permits any future projects/facility changes listed in Part III.A. of this construction permit and operation permit, as part of the Environmental Cooperative Agreement.

PART I
APPLICABLE EMISSION LIMITATIONS AND REQUIREMENTS

Part I permits existing sources at the 3M Menomonie facility regardless if the Environmental Cooperative Agreement with the Department as entered into under s. 299.80 Wis. Stats. is effective. Part III. contains construction permit requirements and permits any future projects/facility changes listed in Part III.A. of this construction permit and operation permit. All projects/facility changes installed under Part III of construction permit 07-SJZ-075 and operation permit 617056660-P10 after the issuance of this operation permit shall operate under these conditions even if the Environmental Cooperative Agreement expires or is revoked. If the Environmental Cooperative Agreement expires or is revoked for any reason, the installation of any future project/facility changes under Part III.A. of this construction permit and operation permit will be prohibited. Any future projects/facility changes shall then be permitted according to the traditional ch. NR 406, Wis. Adm. Code, construction permitting program. If the Environmental Cooperative Agreement expires or is revoked for any reason, the permittee shall comply with any delayed compliance deadlines and practical interim requirements established by the Department in a written revocation decision until the Department issues the approvals required under chs. 280 to 295, Wis. Stats, that were replaced by the above referenced Environmental Cooperative Agreement.

I. A. Process P01, Stack S01 — 21 MMBtu/hr Kewaunee Boiler-Installed 1996

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	(1) 0.15 pounds per million Btu and 0.3 pounds per hour ¹ of particulate matter. [s. 285.65(7), Wis. Stats. and s. NR 415.06(2)(a), Wis. Adm. Code]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.] (2) INSPECT: for proper boiler operation only when the boiler is operating Frequency: weekly [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	(1) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use U.S. EPA Method 5 AND Method 202 to include condensable particulate matter emissions, OR: other methods as approved by the Department. [s. NR 439.06(1), Wis. Adm. Code.] (2) The permittee shall keep monthly records of the type and amount of fuel used. Copies of the records will be maintained onsite and available for DNR inspection. [ss. NR 439.04(1)(d) and NR 439.04(2) Wis. Adm. Code]
2. Sulfur Dioxide	(1) Sulfur content of fuel oil combusted shall not exceed 0.05% by weight. ² [96-MMH-607 and s. 285.65(7), Wis. Stats.]	(1) OBTAIN: certification from the fuel oil supplier stating the sulfur content by weight of the fuel oil Frequency: upon each delivery of fuel oil, or as demonstrated by specifications in a standing purchase order [s. NR 440.207(9)(l)1., Wis. Adm. Code]	(1) REPORT: with the Monitoring Summary Report required in Part I.J.5.b.(1) Content: fuel oil certificates or evidence from a purchase order [s. NR 440.207(9)(e)11., Wis. Adm. Code] (2) REFERENCE TEST METHOD: SO2 IF: emissions testing is requested by the Department for purposes of determining compliance with the SO2 emissions limit, THEN: use U.S. EPA Method 6, 6A, 6B

¹ The particulate limit of 0.3 lb/hr was established by modeling in construction permit 04-SJZ-142 and operation permit 617056660-P01.

² The percent sulfur limit was requested by the facility and established in construction permit 96-MMH-607 by modeling in order for sulfur dioxide emissions to meet the ambient air quality standards.

I. A. Process P01, Stack S01 — 21 MMBtu/hr Kewaunee Boiler-Installed 1996

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
2. Sulfur Dioxide (continued)			or 6C, OR: other methods as approved by the Department. [s. NR 439.06(2)(a), Wis. Adm. Code]
3. Visible Emissions	<p>(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code]</p> <p>(2) WHEN: combustion equipment is being cleaned or a new fire started, THEN: emissions may exceed number 1 of the Ringlemann chart or 20% opacity but may not exceed number 4 of the Ringlemann chart or 80% opacity for 6 minutes in any one hour. MAXIMUM OCCURENCES: combustion equipment may not be cleaned nor a fire started more than 3 times per day. [s. NR 431.05(1), Wis. Adm. Code]</p>	<p>(1) See Particulate Matter and Sulfur Dioxide Emission compliance demonstration requirements listed above.</p>	<p>(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code]</p> <p>(2) The recordkeeping requirements for particulate matter emissions outlined in condition I.A.1.c.(2) also serve as recordkeeping requirements for visible emissions for boiler P01. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]</p>

I. B. Process P02, Stack S02 — 13.3 MMBtu/hr Kewaunee Boiler-Installed 1974

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	(1) 0.15 pounds per million Btu and 0.19 pounds per hour ³ of particulate matter. [s. 285.65(7), Wis. Stats. and s. NR 415.06(2)(a), Wis. Adm. Code]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.]	(1) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use U.S. EPA Method 5 AND Method 202 to include condensable particulate matter emissions, OR: other methods as approved by the Department. [s. NR 439.06(1), Wis. Adm. Code.] (2) The permittee shall keep monthly records of the type and amount of fuel used. Copies of the records will be maintained onsite and available for DNR inspection. [ss. NR 439.04(1)(d) and NR 439.04(2) Wis. Adm. Code]
2. Sulfur Dioxide	(1) Sulfur content of fuel oil combusted shall not exceed 0.05% by weight. ⁴ [s. 285.65(7), Wis. Stats.]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.] (2) OBTAIN: certification from the fuel oil supplier stating the sulfur content by weight of the fuel oil Frequency: upon each delivery of fuel oil, or as demonstrated by specifications in a standing purchase order [s. NR 440.207(9)(l)1., Wis. Adm. Code]	(1) REPORT: with the Monitoring Summary Report required in Part I.J.5.b.(1) Content: fuel oil certificates or evidence from a purchase order [s. NR 440.207(9)(e)11., Wis. Adm. Code] (2) REFERENCE TEST METHOD: SO2 IF: emissions testing is requested by the Department for purposes of determining compliance with the SO2 emissions limit, THEN: use U.S. EPA Method 6, 6A, 6B or 6C, OR: other methods as approved by the Department. [s. NR 439.06(2)(a), Wis. Adm. Code]
3. Visible Emissions	(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code] (2) WHEN: combustion equipment is being cleaned or a new fire started, THEN: emissions may exceed number 1 of the Ringlemann chart or 20% opacity but may not exceed number 4 of the Ringlemann	(1) See Particulate Matter and Sulfur Dioxide Emission compliance demonstration requirements listed above.	(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) The recordkeeping requirements for particulate matter

³ The particulate limit of 0.19 lb/hr was established by modeling in construction permit 04-SJZ-142 and operation permit 617056660-P01.

⁴ The facility has voluntarily decided to limit boilers P02, P03, P04, and P05 to the sulfur content limit of 0.05% required for boiler P01.

I. B. Process P02, Stack S02 — 13.3 MMBtu/hr Kewaunee Boiler-Installed 1974

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
3. Visible Emissions (continued)	chart or 80% opacity for 6 minutes in any one hour. MAXIMUM OCCURENCES: combustion equipment may not be cleaned nor a fire started more than 3 times per day. [s. NR 431.05(1), Wis. Adm. Code]		emissions outlined in condition I.B.1.c.(2) also serve as recordkeeping requirements for visible emissions for boiler P02. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]

I. C. Process P03, Stack S03 — 16.7 MMBtu/hr Cleaver-Brooks Boiler-Installed 1980

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	(1) 0.15 pounds per million Btu and 0.23 pounds per hour ⁵ of particulate matter. [s. 285.65(7), Wis. Stats. and s. NR 415.06(2)(a), Wis. Adm. Code]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.]	(1) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use U.S. EPA Method 5 AND Method 202 to include condensable particulate matter emissions, OR: other methods as approved by the Department. [s. NR 439.06(1), Wis. Adm. Code.] (2) The permittee shall keep monthly records of the type and amount of fuel used. Copies of the records will be maintained onsite and available for DNR inspection. [ss. NR 439.04(1)(d) and NR 439.04(2) Wis. Adm. Code]
2. Sulfur Dioxide	(1) Sulfur content of fuel oil combusted shall not exceed 0.05% by weight. ⁶ [s. 285.65(7), Wis. Stats.]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.] (2) OBTAIN: certification from the fuel oil supplier stating the sulfur content by weight of the fuel oil Frequency: upon each delivery of fuel oil, or as demonstrated by specifications in a standing purchase order [s. NR 440.207(9)(l)1., Wis. Adm. Code]	(1) REPORT: with the Monitoring Summary Report required in Part I.J.5.b.(1) Content: fuel oil certificates or evidence from a purchase order [s. NR 440.207(9)(e)11., Wis. Adm. Code] (2) REFERENCE TEST METHOD: SO2 IF: emissions testing is requested by the Department for purposes of determining compliance with the SO2 emissions limit, THEN: use U.S. EPA Method 6, 6A, 6B or 6C, OR: other methods as approved by the Department. [s. NR 439.06(2)(a), Wis. Adm. Code]
3. Visible Emissions	(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code] (2) WHEN: combustion equipment is being cleaned or a new fire started, THEN: emissions may exceed number 1 of the Ringlemann chart or 20% opacity but may not exceed number 4 of the Ringlemann chart or 80% opacity for 6 minutes	(1) See Particulate Matter and Sulfur Dioxide Emission compliance demonstration requirements listed above.	(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) The recordkeeping requirements for particulate matter emissions outlined in condition I.C.1.c.(2) also serve as

⁵ The particulate limit of 0.23 lb/hr was established by modeling in construction permit 04-SJZ-142 and operation permit 617056660-P01.

⁶ The facility has voluntarily decided to limit boilers P02, P03, P04, and P05 to the sulfur content limit of 0.05% required for boiler P01.

I. C. Process P03, Stack S03 — 16.7 MMBtu/hr Cleaver-Brooks Boiler-Installed 1980

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
3. Visible Emissions (continued)	in any one hour. MAXIMUM OCCURENCES: combustion equipment may not be cleaned nor a fire started more than 3 times per day. [s. NR 431.05(1), Wis. Adm. Code]		recordkeeping requirements for visible emissions for boiler P03. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]

I. D. Process P04, Stack S04 — 10.5 MMBtu/hr ABCO Boiler-Installed 1989

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	(1) 0.15 pounds per million Btu and 0.15 pounds per hour ⁷ of particulate matter. [s. 285.65(7), Wis. Stats. and s. NR 415.06(2)(a), Wis. Adm. Code]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.]	(1) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use U.S. EPA Method 5 AND Method 202 to include condensable particulate matter emissions, OR: other methods as approved by the Department. [s. NR 439.06(1), Wis. Adm. Code.] (2) The permittee shall keep monthly records of the type and amount of fuel used. Copies of the records will be maintained onsite and available for DNR inspection. [ss. NR 439.04(1)(d) and NR 439.04(2) Wis. Adm. Code]
2. Sulfur Dioxide	(1) Sulfur content of fuel oil combusted shall not exceed 0.05% by weight. ⁸ [s. 285.65(7), Wis. Stats.]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.] (2) OBTAIN: certification from the fuel oil supplier stating the sulfur content by weight of the fuel oil Frequency: upon each delivery of fuel oil, or as demonstrated by specifications in a standing purchase order [s. NR 440.207(9)(l)1., Wis. Adm. Code]	(1) REPORT: with the Monitoring Summary Report required in Part I.J.5.b.(1) Content: fuel oil certificates or evidence from a purchase order [s. NR 440.207(9)(e)11., Wis. Adm. Code] (2) REFERENCE TEST METHOD: SO2 IF: emissions testing is requested by the Department for purposes of determining compliance with the SO2 emissions limit, THEN: use U.S. EPA Method 6, 6A, 6B or 6C, OR: other methods as approved by the Department. [s. NR 439.06(2)(a), Wis. Adm. Code]
3. Visible Emissions	(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code] (2) WHEN: combustion equipment is being cleaned or a new fire started, THEN: emissions may exceed number 1 of the Ringlemann chart or 20% opacity but may not exceed number 4 of the Ringlemann chart or 80% opacity for 6 minutes	(1) See Particulate Matter and Sulfur Dioxide Emission compliance demonstration requirements listed above.	(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) The recordkeeping requirements for particulate matter emissions outlined in condition I.D.1.c.(2) also serve as

⁷ The particulate limit of 0.15 lb/hr was established by modeling in construction permit 04-SJZ-142 and operation permit 617056660-P01.

⁸ The facility has voluntarily decided to limit boilers P02, P03, P04, and P05 to the sulfur content limit of 0.05% required for boiler P01.

I. D. Process P04, Stack S04 — 10.5 MMBtu/hr ABCO Boiler-Installed 1989

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
3. Visible Emissions (continued)	in any one hour. MAXIMUM OCCURENCES: combustion equipment may not be cleaned nor a fire started more than 3 times per day. [s. NR 431.05(1), Wis. Adm. Code]		recordkeeping requirements for visible emissions for boiler P04. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]

I. E. Process P05, Stack S05 — 10.5 MMBtu/hr ABCO Boiler-Installed 1989

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Particulate Matter Emissions	(1) 0.15 pounds per million Btu and 0.15 pounds per hour ⁹ of particulate matter. [s. 285.65(7), Wis. Stats. and s. NR 415.06(2)(a), Wis. Adm. Code]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.]	(1) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use U.S. EPA Method 5 AND Method 202 to include condensable particulate matter emissions, OR: other methods as approved by the Department. [s. NR 439.06(1), Wis. Adm. Code.] (2) The permittee shall keep monthly records of the type and amount of fuel used. Copies of the records will be maintained onsite and available for DNR inspection. [ss. NR 439.04(1)(d) and NR 439.04(2) Wis. Adm. Code]
2. Sulfur Dioxide	(1) Sulfur content of fuel oil combusted shall not exceed 0.05% by weight. ¹⁰ [s. 285.65(7), Wis. Stats.]	(1) USE: natural gas OR No. 2 fuel oil only as combustion fuel. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and s. 285.65(7), Wis. Stats.] (2) OBTAIN: certification from the fuel oil supplier stating the sulfur content by weight of the fuel oil Frequency: upon each delivery of fuel oil, or as demonstrated by specifications in a standing purchase order [s. NR 440.207(9)(l)1., Wis. Adm. Code]	(1) REPORT: with the Monitoring Summary Report required in Part I.J.5.b.(1) Content: fuel oil certificates or evidence from a purchase order [s. NR 440.207(9)(e)11., Wis. Adm. Code] (2) REFERENCE TEST METHOD: SO2 IF: emissions testing is requested by the Department for purposes of determining compliance with the SO2 emissions limit, THEN: use U.S. EPA Method 6, 6A, 6B or 6C, OR: other methods as approved by the Department. [s. NR 439.06(2)(a), Wis. Adm. Code]
3. Visible Emissions	(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code] (2) WHEN: combustion equipment is being cleaned or a new fire started, THEN: emissions may exceed number 1 of the Ringlemann chart or 20% opacity but may not exceed number 4 of the Ringlemann chart or 80% opacity for 6 minutes	(1) See Particulate Matter and Sulfur Dioxide Emission compliance demonstration requirements listed above.	(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) The recordkeeping requirements for particulate matter emissions outlined in condition I.E.1.c.(1) also serve as

⁹ The particulate limit of 0.15 lb/hr was established by modeling in construction permit 04-SJZ-142 and operation permit 617056660-P01.

¹⁰ The facility has voluntarily decided to limit boilers P02, P03, P04, and P05 to the sulfur content limit of 0.05% required for boiler P01.

I. E. Process P05, Stack S05 — 10.5 MMBtu/hr ABCO Boiler-Installed 1989

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
3. Visible Emissions (continued)	in any one hour. MAXIMUM OCCURENCES: combustion equipment may not be cleaned nor a fire started more than 3 times per day. [s. NR 431.05(1), Wis. Adm. Code]		recordkeeping requirements for visible emissions for boiler P05. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]

I. F. Process I2 — E-Beam

Process I6 — Hot Melt Coater (PC&RP Division)

Process I7 — Elastic Coating 1 (PC&RP Division)

Process I8 — Elastic Coating 2 (PC&RP Division)

Process I9, Stack(s) S154 — F1 Line Hot Melt Coater (PCD Division)-Installed 2007

Process P06, S06, S36 — MRC 5 Resin Coating Line-Installed 2003

Process P07, Stack(s) S07, S22, S24, S49 — Tape Coating-Installed 1983

Process P10, S10, S20 — MRC 1 Resin Coating Line-Last Modified 2000

Process P11, S11, S21 — MRC 2 Resin Coating Line-Last Modified 2000

Process P12, S12 — MRC 3 Resin Coating Line-Last Modified 2000

Process P13, S13, S23 — MRC 4 Resin Coating Line-Last Modified 2000

Process P21, S204, S210, S211, S212, S213 — MRC 6 Resin Coating Line-Last Modified 2005

Process P23, Stack(s) S217 — GDL Line-Installed 2005

Process P24, S219, S225, S226, S227, S228 — MRC 7 Resin Coating Line-Installed 2006

Process P25, S230, S237, S238, S239 — MRC 8 Resin Coating Line-Installed 2007

Process P26, S242, S245, S248, S249, S250 — MRC 9 Resin Coating Line-Installed 2007

Process Pxx, Stack(s) Sxx — Athena Web Coating Line-To Be Installed

The 3M Menomonie plant is an existing affected source and is subject to the federal national emission standards for hazardous air pollutants (maximum achievable control technology (MACT)) for Paper and Other Web Coating [POWC] operations in 40 CFR Part Subpart JJJJ (63.3280-63.3420). On the basis of a streamlining demonstration [Attached in Appendix A] the following additional rules apply to these coating lines:

- Ch. NR 424, Wis. Adm. Code: Control of Organic Compound Emissions from Process Lines (applies to resin coating lines MRC 1 (P10), MRC 2 (P11), MRC 3 (P12), MRC 4 (P13), MRC 5 (P06). Latest Available Control Techniques and operating practices (LACT) for the MRC Resin Coating Lines MRC 1 (P10), MRC 2 (P11), MRC 3 (P12), and MRC 4 (P13) has been determined to be the use of UV curable resins, established in construction permit 00-JAS-606. The LACT for MRC Resin Coating Line MRC 5 (P06) has been determined to be the requirements specified in the MACT standard for paper and other web coating operations.)
- Ch. NR 422, Wis. Adm. Code: Control of Organic Compound Emissions from Surface Coating, Printing, and Asphalt Surfacing Operations (applies to tape coating process (P07))
- 40 CFR Part 60 Subpart RR (60.440-60.447): Pressure Sensitive Tape and Label Surface Coating (applies to tape coating process (P07))

When the Paper and Other Web Coating MACT is applied on the basis of VOC rather than organic-HAP emissions, requirements in the Paper and Other Web Coating MACT are more restrictive than the requirements listed in s. NR 424, Wis. Adm. Code, s. NR 422, Wis. Adm. Code, and 40 CFR Part 60 Subpart RR, however these requirements still apply. Because of this, requirements in the Paper and Other Web Coating MACT only are listed in section I.F. below in an effort to streamline permit conditions according to EPA guidance (White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program, March 5, 1996).

I. F. Process I2 — E-Beam

Process I6 — Hot Melt Coater (PC&RP Division)

Process I7 — Elastic Coating 1 (PC&RP Division)

Process I8 — Elastic Coating 2 (PC&RP Division)

Process I9, Stack(s) S154 — F1 Line Hot Melt Coater (PCD Division)-Installed 2007

Process P06, S06, S36 — MRC 5 Resin Coating Line-Installed 2003

Process P07, Stack(s) S07, S22, S24, S49 — Tape Coating-Installed 1983

Process P10, S10, S20 — MRC 1 Resin Coating Line-Last Modified 2000

Process P11, S11, S21 — MRC 2 Resin Coating Line-Last Modified 2000

Process P12, S12 — MRC 3 Resin Coating Line-Last Modified 2000

Process P13, S13, S23 — MRC 4 Resin Coating Line-Last Modified 2000

Process P21, S204, S210, S211, S212, S213 — MRC 6 Resin Coating Line-Last Modified 2005

Process P23, Stack(s) S217 — GDL Line-Installed 2005

Process P24, S219, S225, S226, S227, S228 — MRC 7 Resin Coating Line-Installed 2006

Process P25, S230, S237, S238, S239 — MRC 8 Resin Coating Line-Installed 2007

Process P26, S241, S248, S249, S250 — MRC 9 Resin Coating Line-Installed 2007

Process Pxx, Stack(s) Sxx – Athena Web Coating Line-To Be Installed

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Volatile Organic Compounds [VOC] and Organic Hazardous Air Pollutant (OHAP) Emissions	<p>(1) LIMIT: VOC emissions each month, from the collection of all web coating lines, to the level specified in (a) OR (b):</p> <p>(a) No more than 4 percent of the mass of coating materials applied for each month; OR</p> <p>(b) No more than 20 percent of the mass of coating solids applied for each month [s. 285.65(13), Wis. Stats., chs. 422 and 424, Wis. Adm. Code, 40 CFR 63.3320(b), and 40 CFR Part 60 Subpart RR]</p>	<p>(1) DEMONSTRATE: compliance with the VOC emission limits in I.F.1.a.(1) each month according to I.F.1.b.(2), I.F.1.b.(3), OR I.F.1.b.(4), applied in any combination to each of the coating materials used by the web coating lines subject to 40 CFR 63 subpart JJJJ MACT standard [s. 285.65(13), Wis. Stats.]</p> <p>(2) "As-Purchased" Compliant Coating Materials. DEMONSTRATE: that each coating material applied during the month contains no more than 0.04 kg VOC per kg of coating material (0.04 lb VOC per lb of coating material), OR no more than 0.2 kg VOC per kg coating solids (0.2 lb VOC per lb coating solids) HOW: by determining the VOC AND/OR solids content of each coating material applied, on an as-purchased basis, according to I.F.1.b.(4). [s. 285.65(13), Wis. Stats., chs. 422 and 424, Wis. Adm. Code, 40 CFR 63.3370(c)(5)(i), and 40 CFR Part 60 Subpart RR]</p> <p>(3) "As-Applied" Compliant Coating Materials. DEMONSTRATE: that the monthly average VOC content of all as-applied coating materials is no more than 0.04 kg VOC per kg of coating material (0.04 lb VOC per</p>	<p>(1) DETERMINE AND RECORD: the total mass of each coating material applied each month to each web coating line of the MACT JJJJ Affected Source [s. 285.65(13), Wis. Stats., chs. 422 and 424, Wis. Adm. Code, 40 CFR 63.3410(b), and 40 CFR Part 60 Subpart RR] HOW:</p> <ul style="list-style-type: none"> • by direct measurement, OR • by calculation based on the amount of each product made by each web coating line and the corresponding coating formulation of those products, plus any materials added (e.g. solvent thinning of a coating), OR • by other method, as approved by WDNR <p>(2) DETERMINE AND RECORD: "as-purchased" volatile organic content AND coating solids content of each coating material applied, as applicable and consistent with the compliance demonstration elected at I.F.1.b. The term "as-purchased" is intended to apply to any single material or combination of materials [for example, the entire coating, as applied at the web] for which volatile organic content AND/OR coating solids content has been determined by one of the following methods</p>

I. F. Process I2 — E-Beam

Process I6 — Hot Melt Coater (PC&RP Division)

Process I7 — Elastic Coating 1 (PC&RP Division)

Process I8 — Elastic Coating 2 (PC&RP Division)

Process I9, Stack(s) S154 — F1 Line Hot Melt Coater (PCD Division)-Installed 2007

Process P06, S06, S36 — MRC 5 Resin Coating Line-Installed 2003

Process P07, Stack(s) S07, S22, S24, S49 — Tape Coating-Installed 1983

Process P10, S10, S20 — MRC 1 Resin Coating Line-Last Modified 2000

Process P11, S11, S21 — MRC 2 Resin Coating Line-Last Modified 2000

Process P12, S12 — MRC 3 Resin Coating Line-Last Modified 2000

Process P13, S13, S23 — MRC 4 Resin Coating Line-Last Modified 2000

Process P21, S204, S210, S211, S212, S213 — MRC 6 Resin Coating Line-Last Modified 2005

Process P23, Stack(s) S217 — GDL Line-Installed 2005

Process P24, S219, S225, S226, S227, S228 — MRC 7 Resin Coating Line-Installed 2006

Process P25, S230, S237, S238, S239 — MRC 8 Resin Coating Line-Installed 2007

Process P26, S241, S248, S249, S250 — MRC 9 Resin Coating Line-Installed 2007

Process Pxx, Stack(s) Sxx – Athena Web Coating Line-To Be Installed

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Volatile Organic Compounds [VOC] and Organic Hazardous Air Pollutant (OHAP) Emissions (continued)		<p>lb of coating material), OR no more than 0.2 kg VOC per kg coating solids (0.2 lb VOC per lb coating solids), as determined according to I.F.1.b.(3)(a) OR (b), as applicable. [s. 285.65(13), Wis. Stats., chs. 422 and 424, Wis. Adm. Code, 40 CFR 63.3370(c)(5)(ii), and 40 CFR Part 60 Subpart RR]</p> <p>(a) DEMONSTRATE: $H_L \leq 0.04$, as calculated according to Equation 4 of 40 CFR 63.3370(c)(3) where H_L = Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg ((lb organic HAP/lb coating solids applied)),</p> <p>OR</p> <p>(b) DEMONSTRATE: $H_s \leq 0.20$, as calculated according to Equation 5 of 40 CFR 63.3370(c)(4) H_s = Monthly average, as-applied, organic HAP to coating solids ratio, expressed as kg organic HAP/kg coating solids applied, kg/kg (lb organic HAP/lb coating solids applied)</p> <p>(4) MAY ELECT: a different method of compliance</p>	<ul style="list-style-type: none"> • by testing using EPA Method 24 [40 CFR Part 60, Appendix A], according to 40 CFR 63.3360(d)(1), OR • by formulation data, according to 40 CFR 63.3360(d)(2), OR • by an alternative test method, approved by the Administrator at EPA in accordance with 40 CFR 63.7(f) <p>(3) REPORT: Semi-annual Compliance Report DUE: submit as part of the semi-annual Title V Periodic Monitoring Report CONTENT: according to 40 CFR 3400(c)(2), as applicable [s. 285.65(13), Wis. Stats., chs. 422 and 424, Wis. Adm. Code, 40 CFR 63.3400(c), (c)(1)(v), and 40 CFR Part 60 Subpart RR]</p>

I. F. Process I2 — E-Beam

- Process I6 — Hot Melt Coater (PC&RP Division)**
- Process I7 — Elastic Coating 1 (PC&RP Division)**
- Process I8 — Elastic Coating 2 (PC&RP Division)**
- Process I9, Stack(s) S154 — F1 Line Hot Melt Coater (PCD Division)-Installed 2007**
- Process P06, S06, S36 — MRC 5 Resin Coating Line-Installed 2003**
- Process P07, Stack(s) S07, S22, S24, S49 — Tape Coating-Installed 1983**
- Process P10, S10, S20 — MRC 1 Resin Coating Line-Last Modified 2000**
- Process P11, S11, S21 — MRC 2 Resin Coating Line-Last Modified 2000**
- Process P12, S12 — MRC 3 Resin Coating Line-Last Modified 2000**
- Process P13, S13, S23 — MRC 4 Resin Coating Line-Last Modified 2000**
- Process P21, S204, S210, S211, S212, S213 — MRC 6 Resin Coating Line-Last Modified 2005**
- Process P23, Stack(s) S217 — GDL Line-Installed 2005**
- Process P24, S219, S225, S226, S227, S228 — MRC 7 Resin Coating Line-Installed 2006**
- Process P25, S230, S237, S238, S239 — MRC 8 Resin Coating Line-Installed 2007**
- Process P26, S241, S248, S249, S250 — MRC 9 Resin Coating Line-Installed 2007**
- Process Pxx, Stack(s) Sxx – Athena Web Coating Line-To Be Installed**

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Volatile Organic Compounds [VOC] and Organic Hazardous Air Pollutant (OHAP) Emissions (continued)		demonstration not listed above that is provided in 40 CFR 63.3370 (a) through (p) (5) DEMONSTRATE: The monthly VOC emissions (in tons of VOC's) for all web coating lines shall be summed together each month to determine the total monthly VOC emissions from all the web coating lines. This calculation will be performed monthly. This shall be used to determine the compliance with the synthetic minor condition in I.J.1.a.(1). [s. NR 439.04, Wis. Adm. Code] (6) DEMONSTRATE: The total monthly VOC usage (in tons of VOC's) for all web coating lines shall be summed to yield the total monthly VOC emissions for a rolling 12 month period for all web coating lines combined. This shall be used to determine the compliance the synthetic minor condition in I.J.1.a.(1). [s. NR 439.04, Wis. Adm. Code]	

I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007

The chromium plating baths Process P08 and the chromium plating baths of Process P14 constitute two, distinct, existing Affected Sources and chromium plating bath Process P27 constitutes an Affected Source under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR Part 63 Subpart N/NR 463, Wis. Adm. Code]. Requirements listed below for chromium emissions apply separately to the three MACT Affected Sources. Requirements listed below for pollutants other than chromium apply separately but to all of Process P08, P14, and P27.

I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks	(1) 0.015 mg/dscm, as total chromium at the exhaust of the mesh filter/HEPA filter (C03) for the chromium plating bath and fabric filter (C04) for the Cladding Booth for Process P08. ¹¹ [03-JAJ-055 and 40 CFR 63.342(c)(1)(i)] (2) 0.015 mg/dscm, as total chromium at the exhaust of the mesh filter/HEPA filter (C02) for the chromium plating bath of Process P14. ¹² [97-MMH-605 and 40 CFR 63.342(c)(1)(i)] (3) 0.015 mg/dscm, as total chromium at the exhaust of the mesh filter/HEPA filter (C06) for the chromium plating bath of Process P27. ¹³ [04-SJZ-142 and 40 CFR 63.342(c)(1)(i)]	(1) OPERATE and MAINTAIN: each affected source [the chromium plating baths of Process P08, P14, and P27, considered separately], including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the operation and maintenance plan required by I.G.1.b.(3), including during periods of startup, shutdown, and malfunction [40 CFR 63.342(f)(1)(i)] (2) MALFUNCTIONS: the permittee shall correct each malfunction as soon as practicable, according to the O&M Plan [40 CFR 63.342(f)(1)(ii)] (3) OPERATION AND MAINTENANCE PLAN [O&M] [40 CFR 63.342(f)(3)] (a) The permittee shall prepare and maintain an O&M Plan with content according to 40 CFR 63.342(f)(3)(i). A single plan may be written to cover more than one MACT Affected Source, and this	The following requirements apply separately to each MACT Affected Source [the chromium plating baths of Processes P08, P14, and P27] (1) INSPECT and RECORD: visually inspect, once per quarter, each composite mesh-pad [CMP] system air pollution control device as follows: (a) overall CMP inspection, to ensure proper drainage, no chronic acid buildup on pads, and no evidence of chemical attack on structure (b) the back part of the mesh pad closest to the fan to ensure no breakthrough of chromic acid mist (c) ductwork from the tank to the CMP to ensure no leaks [40 CFR 63.342 Table 1, 40 CFR 63.346(b)(1)] (2) PERFORM and RECORD: washdown of the mesh-pads of each CMP (C03, C04, C06), according to the frequency specified by the manufacture, or equal [40 CFR 63.342 Table 1, 40 CFR 63.346(b)(1)] (3) MONITOR and RECORD: pressure drop across

¹¹ At a flow rate of 1,600 actual cubic feet per minute and a stack exhaust temperature of 80 degrees Fahrenheit, 0.015 milligram per dry standard cubic meter is equivalent to 8.61E-05 pounds per hour.

¹² At a flow rate of 950 actual cubic feet per minute and a stack exhaust temperature of 72 degrees Fahrenheit, 0.015 milligram per dry standard cubic meter is equivalent to 5.19E-05 pounds per hour.

¹³ At a flow rate of 1,000 actual cubic feet per minute and a stack exhaust temperature of 70 degrees Fahrenheit, 0.015 milligram per dry standard cubic meter is equivalent to 5.49E-05 pounds per hour.

**I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
 Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
 Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007**

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)	(4) The above emission limitations apply during tank operation as well as during periods of startup and shutdown. The emission limitations do not apply during periods of malfunction. However, work practice standards that address operation and maintenance and that are required by I.G.1.b. shall be followed during malfunctions. [40 CFR 63.342(b)(1)]	requirement may be met in part or in full using (SOP) manuals, OSHA plans, and/or other existing plans. (b) RETAIN: retain the O&M Plan for life of the 40 CFR 63 subpart N Affected Source, OR until the source is no longer subject to 40 CFR 63 subpart N. Previous versions of the O&M Plan shall be retained for 5 yrs (c) IF: a malfunction occurs, AND actions taken are inconsistent with the O&M Plan, THEN: <ul style="list-style-type: none"> • RECORD: the actual actions taken, AND • REPORT: by telephone [DUE: 2 working days after commencing the actions inconsistent with the plan], AND • SUBMIT: by written letter [DUE: 7 work days after the end of the event] (d) IF: a malfunction occurs which is inadequately addressed by the O&M Plan, THEN REVISE: the O&M Plan within 45 days of the malfunction event (4) SUBMIT: Semiannual Summary Report DUE: submit as part of the semi-annual Title V Periodic Monitoring Report CONTENT: according 40 CFR 63.347(g)(3) [40 CFR 63.347(g)(1)] (a) IF: more than one monitoring device is used to demonstrate compliance with the emission standards, THEN REPORT: the results for each monitoring device, EXCEPT IF: one monitoring device is a backup [40 CFR 63.347(g)(4)] (b) IF: an emission limit is exceeded, THEN	each CMP (C02, C03, C06) and fabric filter (C04), (a) Frequency: once per day that the corresponding affected source is operating [40 CFR 63.343(c)(1)(ii)] (b) The MACT Affected Source is in compliance with the standards if it is operating within ± 1 inch H ₂ O column of the pressure drop value established during its corresponding initial performance test, OR is operating within the range of compliant values for pressure drop established during multiple performance tests [40 CFR 63.343(c)(1)(ii)] (c) The monitoring device used to measure pressure drop across each composite mesh-pad [CMP] shall be installed to assure representative measurement, and shall be installed, operated, and calibrated according to manufacturer's written specifications, or equal. [40 CFR 63.344(d)(2)] (4) RECORD: each instance of maintenance of: (a) the affected source, AND (b) the CMP, AND (c) monitoring equipment [40 CFR 63.346(b)(2)] (5) RECORD: total process operating time for the reporting period [40 CFR 63.346(b)(11)] (6) RECORD: for each instance of a malfunction of the affected source which could reasonably result in failure to meet an emission standard and associated air pollution control devices and monitoring equipment: (a) the occurrence, duration, and cause (if known) (b) each specific period (date, time of start/end) of excess emissions (c) actions taken during malfunction IF inconsistent

**I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
 Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
 Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007**

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)		<p>SUBMIT: the Summary Report quarterly, until a request to reduce reporting frequency is approved according to 40 CFR 63.347(g)(2) DUE: submit as part of the of the corresponding semi-annual Title V Periodic Monitoring Reports and by April 30 [for the reporting period January 1 through March 30] and by October 30 [for the reporting period July 1 through September 30] [40 CFR 63.347(g)(1)(ii)]</p>	<p>with the O&M plan (d) other records as needed to demonstrate consistency with the O&M Plan [40 CFR 63.346(b)(3)-(5), (9)-(10)]</p>
2. Particulate Matter Emissions	<p>(1) 0.33 pounds per hour for Process P08.¹⁴ [03-JAJ-055, s. NR 404.08(2), and s. NR 415.05(2), Wis. Adm. Code] (2) 0.58 pounds per hour for Process P14.¹⁵ [97-MMH-605, s. NR 404.08(2), and s. NR 415.05(2), Wis. Adm. Code] (3) For Process P27, the most restrictive of 0.40 lb/1,000 lb of gas [s. NR 415.05(1)(o), Wis. Adm. Code] AND $E = 3.59 (P)^{0.62}$ where, E is the emission limit in pounds per hour, and P is the</p>	<p>(1) The chrome scrubber and composite mesh pad system (C03) for the chromium tank bath shall be in line and shall be operated at all times when process P08 is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code] (2) The fabric filter (C04) for the Cladding Booth shall be in line and shall be operated at all times when process P08 is in operation.¹⁷ [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code] (3) The composite mesh pad system (C02) for the chromium plate tank shall be in line and shall be operated at all times when process P14 is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1., Wis. Adm. Code] (4) Instrumentation to monitor the pressure drop across the composite mesh pad system (C02), chrome scrubber</p>	<p>(1) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17 including condensable backhalf emissions (U.S. EPA Method 202). [s. NR 439.06(1), Wis. Adm. Code.] (2) The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code] (3) The permittee shall monitor the composite mesh pad system (C02), chrome scrubber and composite mesh pad system (C03), and fabric filter (C04) to ensure they are operating while processes P08 and P14 are operating. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>

¹⁴ The 0.33 pounds per hour emission limit was established by modeling in construction permit 03-JAJ-055 and is included in the permit to protect the National Ambient Air Quality Standards (NAAQS). This emission limit is more restrictive than the emission rate calculated from the process weight rate equation in s. NR 415.05(2), Wis. Adm. Code. Since the MTE/PTE particulate matter emission rate of 0.01 pounds per hour for chrome plating process #2 (P08) is significantly less than the allowable emission rate of 0.33 pounds per hour, the MTE/PTE particulate matter emission rate was modeled to determine a more realistic impact from the facility. At an emission rate of 0.01 pounds per hour, all NAAQS were satisfied.

¹⁵ The 0.58 pounds per hour emission limit was established by modeling in construction permit 97-MMH-605 and is included in the permit to protect the National Ambient Air Quality Standards (NAAQS). This emission limit is more restrictive than the emission rate calculated from the process weight rate equation in s. NR 415.05(2), Wis. Adm. Code. Since the MTE/PTE particulate matter emission rate of 0.01 pounds per hour for chrome plating process #1 (P14) is significantly less than the allowable emission rate of 0.58 pounds per hour, the MTE/PTE particulate matter emission rate was modeled to determine a more realistic impact from the facility. At an emission rate of 0.01 pounds per hour, all NAAQS were satisfied.

**I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
 Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
 Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007**

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
2. Particulate Matter (continued)	<p>process weight rate in tons per hour.¹⁶ [s. NR 415.05(2), Wis. Adm. Code]</p> <p>(4) Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated at these stack parameters.</p> <p>(a) Stacks S14, S34, and S35 may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. [s. 285.65(3), Wis. Stats., and s. NR 406.10, Wis. Adm. Code]</p>	<p>and composite mesh pad system (C03), and fabric filter (C04) shall be installed and operated properly. [s. NR 439.055(1)(a), Wis. Adm. Code]</p> <p>(5) The pressure drop across the composite mesh pad system (C02), chrome scrubber and composite mesh pad system (C03), and fabric filter control device (C04) shall be maintained, per manufacturer specifications, the malfunction, prevention, and abatement (MPA) plan required under I.J.4, or the most recent compliance test, within a range which will attain compliance with the emission limits given under I.G.2.a.(1) and (2). [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p>	<p>(4) RECORD: pressure drop across the composite mesh pad system (C02), chrome scrubber and composite mesh pad system (C03), and fabric filter (C04) Frequency: at the beginning of each operating shift. [ss. NR 439.04(1)(d), s. NR 439.055(2)(b)1., and NR 407.09(1)(c), Wis. Adm. Code]</p> <p>(5) RECORD: each inspection, check, and any maintenance or repairs performed on the composite mesh pad system (C02), chrome scrubber and composite mesh pad system (C03), and fabric filter (C04), including the date and time of the action, initials of inspector, and the results. [ss. NR 439.04(1)(d), and NR 407.09(1)(c) Wis. Adm. Code]</p> <p>(6) MAINTAIN: the chrome scrubber and composite mesh pad system (C03) and the fabric filter (C04) pressure drop monitoring device for Process P08 in accordance with the manufacturer’s recommendations, or equal, and calibrate at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code]</p> <p>(7) MAINTAIN: the composite mesh pad system (C02) pressure drop monitoring device for Process P14 in accordance with the manufacturer’s recommendations, or equal, and calibrate at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code]</p>
3. Visible Emissions	<p>(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code]</p>	<p>(1) The Compliance Demonstration requirements for chromium and particulate matter emissions, conditions</p>	<p>(1) REFERENCE TEST METHOD: Visible Emissions</p>

¹⁶ Because the process weight rate equation varies depending on production and customer demand, both limits from ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code have been included to ensure that the appropriate particulate limit is applied to chrome plating tank CR4 (P27). Based on the current process information, the most restrictive emission rate is 1.54 pounds per hour, calculated from process weight rate equation in s. NR 415.05(2), Wis. Adm. Code. Since the MTE/PTE particulate matter emission rate of 0.01 pounds per hour for chrome plating tank CR4 (P27) is significantly less than the allowable emission rate of 1.54 pounds per hour, the MTE/PTE particulate matter emission rate was modeled to determine a more realistic impact from the facility. At an emission rate of 0.01 pounds per hour, all NAAQS were satisfied.

¹⁷ This condition applies to process P08 only. Process P14 is not equipped with a fabric filter to control emissions on the Cladding Booth.

**I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
 Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
 Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007**

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
3. Visible Emissions (continued)		under I.G.1.b. and I.G.2.b. are deemed sufficient to demonstrate compliance with the visible emission limit.	<p>IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code]</p> <p>(2) The recordkeeping requirements for particulate matter emissions outlined in condition I.G.2.(c) also serve as recordkeeping requirements for visible emissions for processes P08 and P14. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]</p>
4. Volatile Organic Compounds	<p>(1) Latest Available Control Techniques and Operating Practices Demonstrating Best Current Technology (LACT) for processes P08 and P27¹⁸ has been determined to be the following workpractice:</p> <p>(a) cleaning shall be performed using ethanol or isopropyl alcohol (IPA) which is applied to parts using squeegee bottles which are no larger than 1-liter in volume, and</p> <p>(b) no more than 27,180 1-liter squeegee bottles used per year, summed over a rolling 12 month period, or an equivalent combination of bottles of different volume which results in VOC emissions of no more than 23.9 tons</p>	<p>(1) CALCULATE: monthly VOC emissions, for chrome plating process #2 (P08), and chrome plating tank CR4 (P27) where applicable, by the end of the following month.</p> <p>PROCEDURE:</p> <p>(a) Multiply the number of squeegee bottles used, as recorded at I.G.4.c.(2), by their respective volumes and by the density of ethanol or IPA, excluding water [lb ethanol or IPA per L], or equivalent factor which matches the units of measurement.</p> <p>i. The average VOC content of all coatings and thinners used each month shall be determined using the following equation:</p> $\frac{\sum_i (V_i) \cdot (C_i)}{V_t} = \frac{\text{lb-VOC}}{\text{gal}}$	<p>(1) MAINTAIN: on-site, a Material Safety Data Sheet (MSDS) or equivalent to document the VOC content of each cleanup solvent used [ss. NR 439.04(1) and 439.04(4), Wis. Adm. Code]</p> <p>(2) RECORD:</p> <p>(a) number of squeegee bottles used by each chrome process line, and the volume of bottles;</p> <p>(b) daily usage of coatings and solvents used, in gallons;</p> <p>(c) VOC content of each coating applied, in pounds per gallon, excluding water;</p> <p>(d) monthly volume of waste coatings and solvents, in gallons;</p> <p>(e) monthly average VOC content of all coatings and thinners used, as calculated in I.G.4.b.(1), in pounds per gallon excluding water;</p> <p>(f) The actual and total VOC emissions summed over a rolling 12 month period determined at the end of each calendar month according to I.G.4.b.(2) and (3) for chrome plating process #2 (P08), chrome plating process #1 (P14), and chrome plating tank CR4 (P27).</p>

¹⁸ It has been determined in construction permit 97-MMH-605 that daily VOC emissions from chrome plating process P14 do not exceed 15 pounds and is exempt from the requirements in ch. NR 424, Wis. Adm. Code.

**I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
 Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
 Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007**

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
4. Volatile Organic Compounds (continued)	<p>per year, summed over a rolling 12 month period.¹⁹ [07-SJZ-075, s. NR 424.03(2)(c), Wis. Adm. Code, s. 285.65(3), Wis. Stats. and s. 285.65(7), Wis. Stats.]</p> <p>[NOTE: LACT is not required for P14 because VOC emissions were less than 15 lb/day at the time it was permitted. VOC emissions from P14 along with VOC emissions from P08 and P27 are included in the VOC cap of 249 tons/year specified in I.J.1.a.(1).]</p>	<p>where:</p> <p>i = Coating or thinner, i;</p> <p>$\sum_i (V_i) \cdot (C_i)$ = the sum of each quantity $(V_i)(C_i)$ for that month of operations</p> <p>V_i = the amount of each coating and thinners used that month, in gallons;</p> <p>C_i = the VOC content for each coating and thinners used during that month, in pounds VOC per gallon, excluding water;</p> <p>V_t = the total volume of coatings and thinners used that month.</p> <p>[s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(2) The VOCs from the waste solvent generated from the chrome plating process #2 (P08) and chrome plating tank CR4 (P27) each month shall be determined by multiplying the total volume of waste solvent generated, in gallons, by the average VOC content of the coatings and solvents used that month, calculated in I.G.4.b.(1), in pounds VOC per gallon, excluding water. [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(3) CALCULATE: monthly VOC emissions for chrome plating process #2 (P08), chrome plating process #1 (P14), and chrome plating tank CR4 (P27), by the end of the following month</p> <p>PROCEDURE:</p> <p>(a) calculate: daily VOC emissions by multiplying the</p>	<p>[s. NR 439.04(1)(d) and (3), Wis. Adm. Code]</p> <p>(3) REFERENCE TEST METHOD: VOC IF: emissions testing is requested by the Department for purposes of determining compliance with the VOC emissions limit, THEN: use US EPA Methods 24, 25, or 25A, OR: other methods as approved by the Department. [s. NR 439.06(3)(a), Wis. Adm. Code]</p>

¹⁹ VOC emissions from chrome tank 3 (P27) are also limited to 100 tons per year, as specified in III.K.1.a.(1).

**I. G. Process P08, S08, S34, S35, Control Device(s) C03, C04 — Chrome Plating Process #2-Installed 2003, Last Modified 2006
 Process P14, S14, Control Device(s) C02 — Chrome Plating Process #1-Installed 1996
 Process P27, S259, Control Device(s) C06 — Chrome Plating Tank CR4-Installed 2007**

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
4. Volatile Organic Compounds (continued)		amount of each solvent used each day, in gallons, and the VOC content, in pounds per gallon, for that solvent; (b) sum daily emissions from each solvent, to determine total VOC emissions for that day, and sum daily totals to determine the monthly total VOC emissions; (c) subtract VOCs in the waste solvent generated for the month from the sum of daily emissions for that month, to determine total actual VOCs emitted that month; (d) sum actual emissions from the most recent month and the actual emissions from the previous 11 consecutive months to determine the annual emissions. This shall be used to determine the compliance with the synthetic minor condition in I.J.1.a.(1). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	

I. H. Process P09, Stack(s) S09, Control Device(s) C01 — Automated Spray Coating Line-Installed 1996

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Particulate Matter Emissions</p>	<p>(1) The most restrictive of 0.40 lb/1,000 lb of gas [s. NR 415.05(1)(o), Wis. Adm. Code] AND</p> <p>$E = 3.59 (P)^{0.62}$</p> <p>where, E is the emission limit in pounds per hour, and P is the process weight rate in tons per hour.²⁰</p> <p>[s. NR 415.05(2), Wis. Adm. Code]</p>	<p>(1) INSTALL, OPERATE, AND MAINTAIN: replaceable filters to control overspray from each paint booth [s. NR 407.09(4)(a)1., Wis. Adm. Code and s. 285.65(3), Wis. Stats.]</p> <p>(2) USE: replaceable filters at all times when the process P09 is operating [s. NR 407.09(4)(a)1., Wis. Adm. Code and s. 285.65(3), Wis. Stats.]</p> <p>(3) INSPECT: replaceable filters, to verify in place, and assure no hole or tear which may cause leaking Frequency: once during each day of operation [s. NR 407.09(4)(a)1., Wis. Adm. Code and s. 285.65(3), Wis. Stats.]</p>	<p>(1) RECORD: each visual inspection of the replaceable filters Frequency: daily [s. NR 439.04(1)(d), Wis. Adm. Code]</p> <p>(2) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use U.S. EPA Method 5 AND Method 202 to include condensable particulate matter emissions, OR: other methods as approved by the Department. [s. NR 439.06(1), Wis. Adm. Code.]</p>
<p>2. Visible Emissions</p>	<p>(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code]</p>	<p>(1) See Particulate Matter Emission compliance demonstration requirements listed above.</p>	<p>(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code]</p> <p>(2) The recordkeeping requirements for particulate matter emissions outlined in condition I.H.1.c.(1) also serve as recordkeeping requirements for visible emissions for process P09. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]</p>
<p>3. Volatile Organic Compounds</p>	<p>(1) Latest Available Control Techniques and Operating Practices Demonstrating Best Current</p>	<p>(1) INSTALL, CALIBRATE, OPERATE, AND MAINTAIN: a device to monitor the pressure at the spray gun nozzle of the HVLP application system [s. NR</p>	<p>(1) MAINTAIN: on-site, a Material Safety Data Sheet (MSDS) or equivalent to document the VOC content of each raw material that is used in Process P09 [ss. NR</p>

²⁰ Because the process weight rate equation varies depending on production and customer demand, both limits from ss. NR 415.05(1)(o) and NR 415.05(2), Wis. Adm. Code have been included to ensure that the appropriate particulate limit is applied to process P09. Based on the current process information, the most restrictive emission rate is 0.117 pounds per hour, calculated from process weight rate equation in s. NR 415.05(2), Wis. Adm. Code.

I. H. Process P09, Stack(s) S09, Control Device(s) C01 — Automated Spray Coating Line-Installed 1996

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
(VOC)	<p>Technology (LACT) is determined to be the following: apply coatings using high volume low pressure (HVLP) systems. [95-MMH-616, s. NR 424.03(2)(c), Wis. Adm. Code, and s. 285.65(7), Wis. Stats.]</p> <p>(2) Volatile organic compound emissions from the automated spray booth process P09 shall not exceed 14 ton/year of VOC, summed over a rolling 12 month period.²¹ [95-MMH-616-R1 and s. 285.65(7), Wis. Stats.]</p>	<p>439.055(1), Wis. Adm. Code]</p> <p>(2) LIMIT: air pressure at the spray gun nozzle of the HVLP application system to 10 psi or less. [s. 285.65(3), Wis. Stats.]</p> <p>(3) DEMONSTRATE: To calculate the VOC emissions from the automated spray booth process P09, use the following equations, except as may be otherwise approved by the Wisconsin DNR:</p> <p>(a) For the past months emissions:</p> $E = \sum_i (V_i) \cdot (C_i)$ <p>where: <i>i</i> = identifies each individual coating; E = total monthly emissions of VOCs from coating usage, in tons per month;</p> $\sum_i (V_i) \cdot (C_i) =$ the sum of each quantity of $(V_i)(C_i)$ for each coating used in the previous month; <p>V_i = total volume of coating <i>i</i>, as a sum from the previous month, in gallons, less water, as applied C_i = the VOC content of coating <i>i</i>, in pounds per gallon, less water, as applied</p> <p>(b) The facility shall calculate the total emissions using the following equation:</p>	<p>439.04(1) and 439.04(4), Wis. Adm. Code]</p> <p>(2) MEASURE AND RECORD: spray gun nozzle pressure Frequency: monthly [s. NR 439.055(5), Wis. Adm. Code and s.285.65(3), Wis. Stats.]</p> <p>(3) USE AND HANDLE: organic compounds according to good operating practices, including taking reasonable precautions to prevent the spillage, escape or emission of organic compounds, solvents or mixtures. Such precautions shall include, but not be limited to covering clean-up solvent cans when not in use. [s. NR 419.03(2), Wis. Adm. Code]</p> <p>(4) REFERENCE TEST METHOD: VOC IF: emissions testing is requested by the Department for purposes of determining compliance with the VOC emissions limit, THEN: use US EPA Methods 18, 25, 25A or 25B, OR: other methods as approved by the Department. [s. NR 439.06(3)(a), Wis. Adm. Code]</p> <p>(5) RECORD: The following records for automated spray booth process P09 shall be maintained during operation: (a) Daily usage (in gallons) and VOC content (in pounds per gallon) of coatings and solvents used at the coating line; (b) The VOC content of each coating applied, in pounds per gallon, excluding water; (c) The actual and total VOC emissions determined at the end of each calendar month according to I.H.3.b.(3). [s. NR 439.04(1)(d) and (3), Wis. Adm. Code]</p>

²¹ The VOC limit of 14 tons/year of VOC, summed over a rolling 12 month period, is equivalent to the individual coating usage limits established in construction permit 95-MMH-616-R1.

I. H. Process P09, Stack(s) S09, Control Device(s) C01 — Automated Spray Coating Line-Installed 1996

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
3. Volatile Organic Compounds (VOC) (continued)		$E_T = E_1 + E_2 + \dots + E_i$ <p>where: E_T = total emissions, summed over a rolling 12 month period; E_i = Actual emissions, in month i;</p> <p>(c) These calculations shall be completed monthly to determine the total emissions for the previous month. [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p>	

I. I. Ceramic Fiber Making Processes

Process P15, Control Device C05, Stack(s) S15, S25, S43, S44, S45 — CF1-Last Modified 2004

Process P16, Control Device C05, Stack(s) S16, S26, S43, S44, S46 — CF2-Last Modified 2004

Process P17, Stack(s) S17, S27, S30, S50 —CF3-Last Modified 2004

Process P18, Stack(s) S18, S28 - CF4-Last Modified 2005

Process P19, Control Device C05, Stack(s) S19, S29, S30, S43, S47 — CF5-Last Modified 2005

Process P22, Control Device C05, Stack(s) S41, S42, S43, S44, S48 — CF6-Last Modified 2003

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Formaldehyde</p>	<p>(1) Combined emissions from all the ceramic fiber making processes: 1 ton per year, summed over a rolling 12 month period.²² [03-JAJ-240, ss. NR 445.08(2)(f), Wis. Adm. Code, and 285.65(7), Wis. Stats.]</p> <p>(2) Formaldehyde emissions from processes P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6) shall be controlled by the best available control technology (BACT), per s. NR 445.08(2)(f), Wis. Adm. Code. BACT has been determined to be controlling formaldehyde emissions by at least 41%, on average, between all process lines [P15, P16, P19, and P22] while using the worst case raw material family of fibers. [03-JAJ-240, ss. NR 445.08(2)(f), Wis. Adm. Code, and 285.65(7) Wis. Stats.]</p>	<p>(1) CALCULATE: formaldehyde (HCOH) emissions from the ceramic fiber making lines FREQUENCY: each month HOW:</p> $\text{HCOH} = [\text{EF}_1 \times \text{pounds typical raw material}] + [\text{EF}_2 \times \text{pounds worst case material}]$ <p>Where</p> <p>EF₁ is the emission factor for formaldehyde derived from the most recent tests the facility has conducted for emissions of the typical raw material family of fibers.</p> <p>EF₂ is the emission factor for formaldehyde derived from the most recent tests the facility has conducted for emissions of the worst case raw material family of fibers. [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(2) CALCULATE: formaldehyde emissions from all ceramic fiber making processes, summed over a rolling 12 month period FREQUENCY: each month DUE: by the end of the following month HOW: by summing the total formaldehyde emissions of all ceramic fiber making processes over a rolling 12 month period</p>	<p>(1) RECORD: for each month of operation:</p> <p>(a) amount (lbs) of each raw material used in the ceramic fiber making processes;</p> <p>(b) formaldehyde emissions [lb/day] from all ceramic fiber making processes;</p> <p>(c) formaldehyde emissions [lb/mo] from all ceramic fiber making processes, calculated according to condition I.I.1.b.(1);</p> <p>(d) formaldehyde emissions from all ceramic fiber making processes summed over a rolling 12 month period, calculated according to condition I.I.1.b.(2); and</p> <p>(e) the date, time, and process number, when a process is operating using the worst case raw materials. [s. NR 439.04(d), Wis. Adm. Code]</p> <p>(2) RECORD: all inspections, checks, calibrations and any maintenance or repairs performed on the oxidizer CONTENT: the date of the action, initials of inspector, and the results [s. NR 439.04(1)(d), Wis. Adm. Code]</p> <p>(3) CALIBRATE: the temperature monitoring device of the thermal oxidizer, at least once per year [s. NR</p>

²² The formaldehyde limit of 1 ton per year was established in construction permit 03-JAJ-240 to meet the BACT requirement.

I. I. Ceramic Fiber Making Processes

Process P15, Control Device C05, Stack(s) S15, S25, S43, S44, S45 — CF1-Last Modified 2004

Process P16, Control Device C05, Stack(s) S16, S26, S43, S44, S46 — CF2-Last Modified 2004

Process P17, Stack(s) S17, S27, S30, S50 —CF3-Last Modified 2004

Process P18, Stack(s) S18, S28 - CF4-Last Modified 2005

Process P19, Control Device C05, Stack(s) S19, S29, S30, S43, S47 — CF5-Last Modified 2005

Process P22, Control Device C05, Stack(s) S41, S42, S43, S44, S48 — CF6-Last Modified 2003

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Formaldehyde (continued)		<p>[s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(3) OPERATE: the oxidizer (C05) control device when processes P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6) are operating and using worst case raw materials</p> <p>(4) MAINTAIN AND OPERATE: temperature in the primary chamber of the the oxidizer (C05): as needed to meet all applicable requirements under this section as determined by most recent compliance test. [s. NR 439.055(1)(d) and s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(5) INSTALL, OPERATE, CALIBRATE, AND MAINTAIN: a continuous monitoring device for the primary chamber temperature ACCURRACY: 0.5% of the temperature being measured [s. NR 439.055(2)(a), s. NR 407.09(4)(a)1., and s. NR 439.055(3)(a), Wis. Adm. Code]</p> <p>(6) DETERMINE: the following, while operating at 100% capacity, for each process line: P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6) using methods approved by the Department:</p> <p>(a) Formaldehyde emission rate, for each process line P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6);</p> <p>(b) Formaldehyde destruction efficiency of the oxidizer, for each process line P15 (CF1), P16</p>	<p>439.055(4), Wis. Adm. Code]</p> <p>(4) RECORD: temperature in the primary chamber of the oxidizer FREQUENCY: at least every 15 minutes [s. NR 439.055(2)(a), Wis. Adm. Code, and NR 407.09(1)(c), Wis. Adm. Code]</p> <p>(5) RECORD: for all testing completed to obtain the emission factors used under condition I.I.1.b.(1):</p> <p>(a) date, monitoring site, and time and duration of sampling, testing, monitoring and measurements;</p> <p>(b) dates the analyses were performed;</p> <p>(c) the company or entity that performed the analyses;</p> <p>(d) the analytical techniques or methods used, including supporting information such as calibration and maintenance records and all original recording charts for continuous monitoring instrumentation including emissions or equipment monitors;</p> <p>(e) the resulting emission factor(s);</p> <p>(f) the relevant operating conditions that existed at the time of sampling, testing, monitoring or measurement, such as the type and throughput of material used in each process line. [s. NR 439.04(1)(a), Wis. Adm. Code, and s. 285.65(10), Wis. Stats.]</p>

I. I. Ceramic Fiber Making Processes

Process P15, Control Device C05, Stack(s) S15, S25, S43, S44, S45 — CF1-Last Modified 2004

Process P16, Control Device C05, Stack(s) S16, S26, S43, S44, S46 — CF2-Last Modified 2004

Process P17, Stack(s) S17, S27, S30, S50 —CF3-Last Modified 2004

Process P18, Stack(s) S18, S28 - CF4-Last Modified 2005

Process P19, Control Device C05, Stack(s) S19, S29, S30, S43, S47 — CF5-Last Modified 2005

Process P22, Control Device C05, Stack(s) S41, S42, S43, S44, S48 — CF6-Last Modified 2003

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Formaldehyde (continued)		<p>(CF2), P19 (CF5), and P22 (CF6);</p> <p>(c) The average formaldehyde destruction efficiency of the oxidizer for all process lines P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6) combined.</p> <p>(d) Temperature of the primary chamber to attain and maintain at least 41% control of formaldehyde emissions.</p> <p>[s. NR 439.07, Wis. Adm. Code]</p> <p>(7) INSPECT: the thermal oxidation system HOW: according to the Malfunction, Prevention and Abatement Plan . FREQUENCY: monthly [ss. NR 439.04(1)(d), and NR 407.09(1)(c), Wis. Adm. Code]</p>	<p>(6) REFERENCE TEST METHOD: Formaldehyde Whenever emissions testing is required for purposes of determining compliance with the formaldehyde emissions limit, use US EPA Method 0011, OR: other method as approved by the Department. [s. NR 439.06(8), Wis. Adm. Code]</p>
2. Volatile Organic Compounds	<p>(1) Latest Available Control Techniques and operating practices demonstrating best current technology (LACT): The permittee has demonstrated that 85% control is technologically infeasible for the all process lines combined, and so shall use LACT. LACT is defined as:</p> <p>(a) VOC emissions from all existing ceramic fiber lines shall not exceed 81 tons per year, summed over a rolling 12 month</p>	<p>(1) CALCULATE: VOC emissions from the ceramic fiber making lines each month as follows:</p> $\text{VOC} = [\text{EF}_1 \times \text{pounds typical raw material}] + [\text{EF}_2 \times \text{pounds worse case raw material}]$ <p>Where</p> <p>EF₁ is the emission factor for volatile organic compounds derived from the most recent tests the facility has conducted for emissions of the typical raw material family of fibers.</p> <p>EF₂ is the emission factor for volatile organic</p>	<p>(1) RECORD: for each month of operation:</p> <p>(a) VOC emissions [lb/month] from all ceramic fiber making processes, calculated according to condition I.I.2.b.(1); and</p> <p>(b) VOC emissions from all ceramic fiber making processes summed over a rolling 12 month period, calculated according to condition I.I.2.b.(2).</p> <p>(c) the date, time, and process number, when a process is operating using the worst case raw materials. [s. NR 439.04(d), Wis. Adm. Code]</p>

I. I. Ceramic Fiber Making Processes

Process P15, Control Device C05, Stack(s) S15, S25, S43, S44, S45 — CF1-Last Modified 2004

Process P16, Control Device C05, Stack(s) S16, S26, S43, S44, S46 — CF2-Last Modified 2004

Process P17, Stack(s) S17, S27, S30, S50 —CF3-Last Modified 2004

Process P18, Stack(s) S18, S28 - CF4-Last Modified 2005

Process P19, Control Device C05, Stack(s) S19, S29, S30, S43, S47 — CF5-Last Modified 2005

Process P22, Control Device C05, Stack(s) S41, S42, S43, S44, S48 — CF6-Last Modified 2003

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
2. Volatile Organic Compounds (continued)	<p>period.</p> <p>(b) During the use of worst case raw materials, VOC emissions from processes P15 (CF1), P16 (CF2), P19 (CF5), P22 (CF6), and any existing ceramic fiber lines modified under authority of Part III.A of this permit, and any new ceramic fiber lines installed under authority of Part III.A of this permit, shall be controlled at a control efficiency of at least 80%, on average, between all process lines controlled.</p> <p>[s. NR 424.03(2)(c), Wis. Adm. Code and s. 285.65(7), Wis. Stats.]</p>	<p>compounds derived from the most recent tests the facility has conducted for emissions of the worse case raw material family of fibers.</p> <p>[s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(2) CALCULATE: VOC emissions from all ceramic fiber making processes, over a rolling 12 month period FREQUENCY: each month DUE: by the end of the following month HOW: by summing the total VOC emissions of all ceramic fiber making processes over a rolling 12 month period [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(3) OPERATE: the oxidizer (C05) control device when processes P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6) are operating and using worst case raw materials</p> <p>(4) MAINTAIN: temperature in the primary chamber of the the oxidizer (C05): as needed to meet all applicable requirements under this section as determined by most recent compliance test. [s. NR 439.055(1)(d) and s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(5) INSTALL, OPERATE, CALIBRATE, AND MAINTAIN: a continuous monitoring device for the primary chamber temperature ACCURACY: 0.5% of the temperature being measured [s. NR 439.055(2)(a), s. NR 407.09(4)(a)1., and s. NR 439.055(3)(a), Wis. Adm. Code]</p> <p>(6) DETERMINE: the following, while operating at</p>	<p>(2) RECORD: for all testing completed to obtain the emission factors used under condition I.I.2.b.(1):</p> <p>(a) date, monitoring site, and time and duration of sampling, testing, monitoring and measurements;</p> <p>(b) dates the analyses were performed;</p> <p>(c) the company or entity that performed the analyses;</p> <p>(d) the analytical techniques or methods used, including supporting information such as calibration and maintenance records and all original recording charts for continuous monitoring instrumentation including emissions or equipment monitors;</p> <p>(e) the resulting emission factor(s);</p> <p>(f) the relevant operating conditions that existed at the time of sampling, testing, monitoring or measurement, such as the type and throughput of material used in each process line.</p> <p>[s. NR 439.04(1)(a), Wis. Adm. Code, and s. 285.65(10), Wis. Stats.]</p> <p>(3) REFERENCE TEST METHOD: VOC Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the VOC emissions limit, THEN: use US EPA Methods 18, 25, 25A or 25B, OR: other methods as approved by the Department. [s. NR 439.06(3)(a), Wis. Adm. Code]</p>

I. I. Ceramic Fiber Making Processes

Process P15, Control Device C05, Stack(s) S15, S25, S43, S44, S45 — CF1-Last Modified 2004

Process P16, Control Device C05, Stack(s) S16, S26, S43, S44, S46 — CF2-Last Modified 2004

Process P17, Stack(s) S17, S27, S30, S50 —CF3-Last Modified 2004

Process P18, Stack(s) S18, S28 - CF4-Last Modified 2005

Process P19, Control Device C05, Stack(s) S19, S29, S30, S43, S47 — CF5-Last Modified 2005

Process P22, Control Device C05, Stack(s) S41, S42, S43, S44, S48 — CF6-Last Modified 2003

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
2. Volatile Organic Compounds (continued)		100% capacity, for each process line: P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6) using methods approved by the Department: <ul style="list-style-type: none"> (a) VOC emission rate, for each process line P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6); (b) VOC destruction efficiency of the oxidizer, for each process line P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6); (c) The average VOC destruction efficiency of the oxidizer for all process lines P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6) combined. (d) Temperature of the primary chamber to attain and maintain at least 80% control of formaldehyde emissions. [s. NR 439.07, Wis. Adm. Code]	(4) REFERENCE TEST METHOD: VOC Content of Coatings The organic solvent content, volume of solids, weight of solids, water content, and density of surface coatings and inks, as may be needed to calculate VOC emissions, may be determined on the basis of coating formulations and Material Safety Data Sheets (MSDS) or equivalent. IF: requested by the Department in connection with a compliance demonstration for VOC emissions, THEN: use U.S. EPA Method 24 or 24A, OR: other methods as approved by the Department. [s. NR 439.06(3)(b), Wis. Adm. Code]

I. J. CONDITIONS THAT APPLY TO THE TOTAL FACILITY

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Synthetic Minor Provision for PSD</p>	<p>(1) The VOC emissions from all emissions units at the permittee’s site location may not exceed 249 tons per year, summed over a rolling 12 month period.²³ [617056660-P01, 04-SJZ-142, s. 285.65(7), Wis. Stats.]</p>	<p>(1) Emission factor data, weight percent of VOCs, density of coating used, amount of VOCs per gallon of coating, or any other information necessary shall be used to calculate VOC emissions. [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(2) The monthly amount of VOC emissions shall be calculated according to I.F.1.b.(5), I.F.1.b.(6), I.G.4.b.(1), I.G.4.b.(2), I.G.4.b.(3), I.H.3.b.(3), I.I.2.b.(1), I.I.2.b.(2), III.F.(1), III.G.(1)(c), III.H.4.b.(1), III.H.4.b.(2), III.I.1.b., III.J.1.b., III.K.1.b.(2)(a), III.K.1.b.(2)(b), III.K.1.b.(2)(c), III.K.1.b.(2)(d), and III.K.1.b.(2)(e). [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(3) The amount of all VOC emissions shall be calculated by summing the emissions of the current month with those of the preceding 11 months, using the following equation: $E_{total} = \sum X_n$where, E_{total} = tons of all VOC emitted in a month; X_n = tons of VOC emissions in a month as calculated in condition I.J.1.b.(2). [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p>	<p>(1) The following monthly records shall be compiled by the end of the following month of the recording period: (a) an unique name or identification number for each raw material that contains VOCs (b) monthly usage of each raw material containing VOCs in gallons; (c) VOC content in each raw material in pounds per gallon; (d) calculation of VOCs emitted in tons per month; (e) sum of all VOCs emitted in tons per month; (f) sum of <u>all</u> VOCs emitted from the entire facility in tons per year as summed over a rolling 12 month period. [ss. NR 439.04 and NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(2) The totals in conditions I.J.1.c.(1)(f) shall be calculated for the facility by summing the tons from the last 12 months to yield the total VOCs emissions over a rolling 12 month period. This shall be used to determine compliance with the synthetic minor condition in I.J.1.a.(1). [ss. NR 439.04 and NR 407.09(4)(a)1., Wis. Adm. Code]</p>

²³ The VOC emissions limit of 249 tons per year, summed over a rolling 12 month period, was established in construction permit 04-SJZ-142 and operation permit 617056660-P01 and is always in effect regardless if the Environmental Cooperative Agreement is in effect or not.

I. J. TOTAL FACILITY

CONDITION TYPE	a. SPECIFIC CONDITIONS	b. Compliance Demonstration
<p>2. Stack Parameters</p>	<p>(1) The 3M facility in Menomonie, Wisconsin is located in a Minor New Source Review (NSR) Baseline County (Dunn County), with a base line year of 1990. The permittee has performed a dispersion model for facility-wide emissions of PM, SOx, and NOx and demonstrated that the ambient concentration of each of these substances resulting from emissions units installed at the 3M plant subsequent to the year 1990, plus emissions units installed within 2 kilometer of the 3M plant, does not exceed the corresponding PSD increment. As of the date of issuance of this Title V operating permit, the following emissions units were installed after 1990 and are included for analysis:</p> <ul style="list-style-type: none"> • P01, S01: 21 MMBtu/hr Kewaunee Boiler-Installed 1996 • P06, S06, S36: MRC 5 Resin Coating Line-Installed 2003 • P08, S08, S34, S35, C03, C04: Chrome Plating Process #2-Installed 2006 • P09, S09, C01: Automated Spray Coating Line-Installed 1996 • P10, S10, S20: MRC 1 Resin Coating Line-Last Modified 2000 • P11, S11, S21: MRC 2 Resin Coating Line-Modified 2000 • P12, S12: MRC 3 Resin Coating Line-Modified 2000 • P13, S13, S23: MRC 4 Resin Coating Line-Installed 2000 • P14, S14, C02: Chrome Plating Process #1-Installed 1996 • P15, S15, S25, S43, S44, S45, C05: CF1 Ceramic Fiber Making Process-Last Modified 2004 • P16, S16, S26, S43, S44, S46, C05: CF2 Ceramic Fiber Making Process-Last Modified 2004 • P17, S17, S27, S30, S50: CF3 Ceramic Fiber Making Process-Last Modified 2004 • P18, S18, S28: CF4 Ceramic Fiber Making Process-Last Modified 2005 	<p>None</p>

I. J. TOTAL FACILITY

CONDITION TYPE	a. SPECIFIC CONDITIONS	b. Compliance Demonstration
2 Stack Parameters (continued)	<ul style="list-style-type: none"> • P19, S19, S29, S30, S43, S47, C05: CF5 Ceramic Fiber Making Process-Last Modified 2005 • P21, S204, S210, S211, S212, S213: MRC 6-Installed 2004 • P22, S40, S41, S42, S43, S48, C05: CF6 Ceramic Fiber Firing-Installed 2004 • P23, S217: GDL Line-Installed 2005 • P24, S219, S226, S227, S228: MRC 7-Installed 2006 • P25, S230, S237, S238, S239: MRC 8-Installed 2007 • P26, S242, S245, S248, S249, S250: MRC 9-Installed 2007 • P27, S259, C06: Chrome Plating Tank CR4-Installed 2007 • Pxx, Sxx: Athena Web Coating Line-To Be Installed • I9, S154: FI Line Hot Melt Coater- To Be Installed <p>(2) All stack parameters shall be maintained at dimensions where emissions met the National Ambient Air Quality Standards (NAAQS) during the most recent modeling analysis. [ss. 285.63(1)(a) and 285.65(3), Wis. Stats.]</p> <p>(3) The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code]</p>	
3. Malodorous Emissions*	<p>(1) The facility shall not emit into the ambient air any substance or combination of substances in such quantities that an objectionable odor is determined to result unless preventative measures satisfactory to the department are taken to abate or control such emissions. [s. NR 429.03(1), Wis. Adm. Code]</p>	None
4. Malfunction Prevention and Abatement Plan	<p>(1) A malfunction prevention and abatement plan shall be prepared and followed for the facility within 90 days after this permit is issued. [s. NR</p>	None

I. J. TOTAL FACILITY

CONDITION TYPE	a. SPECIFIC CONDITIONS	b. Compliance Demonstration
<p>4. Malfunction Prevention and Abatement Plan (continued)</p>	<p>439.11, Wis. Adm. Code]</p> <p>(2) A written copy of the plan shall be kept at the plant and shall be updated once every five years. [s. NR 439.11(1), Wis. Adm. Code]</p> <p>(3) All air pollution control equipment shall be operated and maintained in conformance with good engineering practices (i.e., operated and maintained according to the manufacturer's specifications and procedures) to minimize the possibility for the exceedance of any emission limitations. [s. NR 439.11(4), Wis. Adm. Code]</p> <p>(4) The plan shall be developed to prevent, detect and correct malfunctions or equipment failures which may cause any applicable emissions limitation to be violated or which may cause air pollution. [s. NR 439.11(1), Wis. Adm. Code]</p> <p>(5) This plan shall include installation, maintenance and routine calibration procedures for the control equipment instrumentation. This plan shall require an instrumentation calibration at the frequency specified by the manufacturer but not less than once per year plus an inspection and/or calibration whenever instrumentation anomalies are noted. [ss. NR 407.09(1)(c)1.c., NR 439.055(4) and s. NR 439.11, Wis. Adm. Code]</p> <p>(6) The plan shall require a copy of the operation and maintenance manual for the control equipment be maintained on site. The plan shall contain all of the elements in s. NR 439.11(1)(a) - (h), Wis. Adm. Code. [s. NR 439.11, Wis. Adm. Code]</p> <p>(7) The facility shall maintain an inventory of normal consumable items necessary to ensure operation of the control device in conformance with the manufacturer's specifications and recommendations. [s. NR 439.11, Wis. Adm. Code]</p>	
<p>5. Compliance Report / Records</p>	<p>(a) The permittee shall submit periodic monitoring reports. [s. NR 407.09(1)(c)3., Wis. Adm. Code]</p> <p>(b) The permittee shall submit periodic compliance certification. [s. NR 407.09(4)(a)3., Wis. Adm. Code]</p> <p>(c) The records required under this permit shall be retained for at least five years and shall be made available to department personnel upon request during</p>	<p>(1) SUBMIT: Semi-annual Monitoring Summary Report CONTENT: a summary of the monitoring required by this permit, as described at item D. of Part II of this operation permit, including:</p> <p>Identify all deviations</p> <ul style="list-style-type: none"> • fuel oil certifications or other evidences of the sulfur

I. J. TOTAL FACILITY

CONDITION TYPE	a. SPECIFIC CONDITIONS	b. Compliance Demonstration
<p>5. Compliance Report / Records (continued)</p>	<p>normal business hours. [s. NR 422.127(4)(d), s. NR 439.04, and s. NR 439.05, Wis. Adm. Code]</p>	<p>content of fuel oil burned by processes P01, P02, P03, P04, and P05</p> <ul style="list-style-type: none"> • The Semi-annual Compliance Report under MACT JJJJ, as noted at I.F.1.c. • The Semi-annual Summary Report under MACT N, as noted at I.G.1.b (or the alternating quarterly report, if required in lieu of the semi-annual report, according to I.G.1.b.(4)(b) <p>DUE: February 15 for the reporting period of July 1 through December 31 of the preceding year, and August 15 for the reporting period of the preceding January 1 through June 30, for each year that this permit is in effect</p> <p>SEND TO: Wisconsin Department of Natural Resources, West Central Region Air Program – Baldwin Service Center, 890 Spruce Street Baldwin, Wisconsin 54002, phone 715-684-2914 [s. NR 439.03(1)(b), Wis. Adm. Code]</p> <p>(2) SUBMIT: Certification of Compliance CONTENT: item N. of Part II of this operation permit DUE: due February 15 for the period from January 1 to December 31, each year that this permit is in effect SEND TO: Wisconsin Department of Natural Resources, West Central Region Air Program – Baldwin Service Center, 890 Spruce Street Baldwin, Wisconsin 54002, phone 715-684-2914 and to U.S. EPA at Compliance Data - Wisconsin, Air and Radiation Division, U.S. EPA, 77 W. Jackson, Chicago, IL 60604 [s. NR 439.03(1)(c), Wis. Adm. Code]</p>

PART II
General Permit Conditions
For Direct Stationary Sources
Last revised April 7, 2006

A. Scope.

This permit is valid only for the structure, building, facility, equipment or operation specifically identified herein. All emissions authorized hereby shall be in compliance with the terms and conditions of Parts I and II of this permit. [s. 285.60(7), Wis. Stats.]

B. Emissions Prohibited.

Unless the Department has approved an exception under s. NR 436.03(2), no person may cause, allow, or permit emissions of any air contaminant into the ambient air in excess of the limits set in chs. NR 400 to 499, Wis. Adm. Code. [s. NR 436.03(1), Wis. Adm. Code]

C. General Emission Limits.

C.1. Applicable to Insignificant Emissions Units.

The following general emission limitations may apply to one or more of the insignificant emission units identified in the preamble of this permit. It is the permittee's responsibility to comply with these requirements, if they do apply. Insignificant emission units typically are associated with inconsequential environmental impacts and present little potential for violations of these generally applicable requirements. If there were no observed, documented or known instances of noncompliance, certification of compliance is appropriate. Testing or monitoring to assure compliance is not required by this permit.

C.1.a. Section NR 415.05, Wis. Adm. Code – Particulate emission limits for processes;

C.1.b. Section NR 415.06, Wis. Adm. Code – Particulate emission limits for fuel burning installations;

C.1.c. Section NR 415.07, Wis. Adm. Code – Particulate emission limits for incinerators;

C.1.d. Section NR 423.03, Wis. Adm. Code – Solvent metal cleaning;

C.1.e. Section NR 485.05, Wis. Adm. Code – Visible emission limits for motor vehicles, internal combustion engines and mobile sources; and

C.1.f. Section NR 485.055, Wis. Adm. Code – Particulate emission limit for gasoline and diesel internal combustion engines.

C.2. Applicable to Significant and Insignificant Emissions Units.

The following general emission limitations may apply to both significant and insignificant emission units. It is the permittee's responsibility to comply with these requirements, if they apply. Testing or monitoring to assure compliance with these general emission limits is not required by this permit.

For each significant emission unit, if a more specific emission limit is included in Part I of this permit for

any of the pollutants listed below, then compliance with that more specific limit will constitute compliance with the general emission limit. If a more specific limit is not included in Part I of this permit, then that pollutant was determined to be insignificant for that emission unit.

For insignificant emission units, if there were no observed, documented or known instances of non-compliance, certification of compliance is appropriate.

- C.2.a. No person may cause, allow, or permit particulate matter to be emitted into the ambient air which substantially contributes to exceeding of an air standard, or creates air pollution. [s. NR 415.03, Wis. Adm. Code]
- C.2.b. No person may cause, allow, or permit any materials to be handled, transported, or stored without taking precautions to prevent particulate matter from becoming airborne. Nor may a person allow a structure, a parking lot, or a road to be used, constructed, altered, repaired, sand blasted or demolished without taking such precautions. Such precautions shall include, but not be limited to the following [s. NR 415.04, Wis. Adm. Code]:
 - C.2.b.(1) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, or construction operations.
 - C.2.b.(2) Application of asphalt, oil, water, suitable chemicals, or plastic covering on dirt roads, material stockpiles, and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor, or water pollution problem.
 - C.2.b.(3) Installation and use of hoods, fans and air cleaning devices to enclose and vent the areas where dusty materials are handled.
 - C.2.b.(4) Covering or securing of materials likely to become airborne while being moved on public roads, railroads, or navigable waters.
 - C.2.b.(5) Conduct of agricultural practices such as tilling of land or application of fertilizers in such manner as not to create air pollution.
 - C.2.b.(6) The paving or maintenance of roadway areas so as not to create air pollution.
- C.2.c. No person may cause, allow or permit emission of sulfur or sulfur compounds into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 417.03, Wis. Adm. Code]
- C.2.d. No person may cause, allow or permit organic compound emissions into the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. No person may cause, allow or permit organic compounds to be used or handled without using good operating practices and taking reasonable precautions to prevent the spillage, escape or emission of organic compounds, solvents or mixtures. [s. NR 419.03, Wis. Adm. Code]
- C.2.e. No person may cause, allow or permit the disposal of more than 5.7 liters (1.5 gallons) of any liquid Volatile Organic Compound (VOC) waste, or of any liquid, semisolid or solid waste materials containing

- more than 5.7 liters (1.5 gallons) of any VOC, in any one day from a facility in a manner that would permit their evaporation into the ambient air during the ozone season. This includes, but is not limited to, the disposal of VOC which must be removed from VOC control devices so as to maintain the control devices at their required operating efficiency. Disposal during the ozone season shall be by methods approved by the Department, such as incineration, recovery for reuse, or transfer in closed containers to an acceptable disposal facility, such that the quantity of VOC which evaporates into the ambient air does not exceed 15% (by weight) or 5.7 liters (1.5 gallons) in any one day, whichever is larger. [s. NR 419.04, Wis. Adm. Code]
- C.2.f. No person may cause, allow or permit emissions of carbon monoxide to the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 426.03, Wis. Adm. Code].
- C.2.g. No person may cause, allow or permit emissions into the ambient air of lead or lead compounds which substantially contribute to the exceeding of an air standard or air increment, or which create air pollution. [s. NR 427.025, Wis. Adm. Code]
- C.2.h. No person may cause, allow, or permit nitrogen oxides or nitrogen compounds to be emitted to the ambient air which substantially contribute to the exceeding of an air standard or cause air pollution. [s. NR 428.03, Wis. Adm. Code]
- C.2.i. No person may cause, allow or permit emission into the ambient air of any substance or combination of substances in such quantities that an objectionable odor is determined to result unless preventive measures satisfactory to the Department are taken to abate or control such emission. [s. NR 429.03(1), Wis. Adm. Code*]
- C.2.j. Open burning is prohibited except as provided in s. NR 429.04, Wis. Adm. Code. [s. NR 429.04, Wis. Adm. Code*]
- C.2.k. No person may cause, allow or permit emissions into the ambient air from any direct or portable source in excess of one of the limits specified in ch. NR 431, Wis. Adm. Code. Where the presence of uncombined water is the only reason for failure to meet the requirements of ch. NR 431, Wis. Adm. Code, such failure is not a violation of the chapter. [s. NR 431.03, Wis. Adm. Code]
- C.2.l. When the Department requires instrumentation to monitor the operation of air pollution control equipment, or to monitor source performance, the instrument shall measure operational variables with the following accuracy: [ss. NR 439.055(3) and NR 407.09(1)(c)1.c., Wis. Adm. Code]
- C.2.l.(1) The temperature monitoring device shall have an accuracy of 0.5% of the temperature being measured in degrees Fahrenheit or $\pm 5^{\circ}\text{F}$ of the temperature being measured, or the equivalent in degrees Celsius (centigrade), whichever is greater.
- C.2.l.(2) The pressure drop monitoring device shall be accurate to within 5% of the pressure drop being measured or within ± 1 inch of water column, whichever is greater.
- C.2.l.(3) The current, voltage, flow or pH monitoring device shall be accurate to within 5% of the specific variable being measured.
- C.2.m. All instruments used for measuring source or air pollution control equipment operational variables shall be

calibrated yearly or at a frequency based on good engineering practice as established by operational history, whichever is more frequent. [ss. NR 439.055(4) and NR 407.09(1)(c)1.c., Wis. Adm. Code]

C.2.n. No person may cause, allow, or permit emissions into the ambient air of any hazardous substance in such quantity, concentration, or duration as to be injurious to human health, plant or animal life unless the purpose of that emission is for the control of plant or animal life. Hazardous substances include, but are not limited to, hazardous air contaminants listed in Tables 1 to 5 of s. NR 445.04, Wis. Adm. Code. [s. NR 445.03, Wis. Adm. Code*]

C.2.o. Chapter NR 447, Wis. Adm. Code, applies to all air contaminant sources which may emit asbestos, to their owners and operators and to any person whose action causes the emission of asbestos to the ambient air, including demolition and renovation activities. Chapter NR 447, Wis. Adm. Code, establishes emission limitations for asbestos air contaminant sources, establishes procedures to be followed when working with asbestos materials and contains additional reporting and record keeping requirements for owners or operators of asbestos air contaminant sources in order to protect air quality. [ch. NR 447, Wis. Adm. Code]

C.2.p. Accidental Release Prevention Requirements.

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates:

C.2.p.(1) June 21, 1999;

C.2.p.(2) Three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or

C.2.p.(3) The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR Part 68.10]

D. Reporting Requirements.

D.1. The Department shall be notified of the following events:

<u>Event</u>	<u>Timing</u>
D.1.a. Hazardous substance air spill.	Immediate call: 1-800-943-0003
D.1.b. Malfunction or other unscheduled event which causes or may cause any emission limitation to be exceeded (except certain visible emission limit exceedences detected by a continuous emission monitor - see s. NR 439.03(4)(a)2., Wis. Adm. Code.).	Notification by next business day of any such event at the source which is not reported in advance to the Department. Report the cause and duration of the exceedence, the period of time considered necessary for correction, and measures taken to minimize emissions during the period.
D.1.c. Deviation from any other condition specified in this permit.	Notification by next business day identifying the deviation, cause, duration and steps taken to prevent

recurrence.

[ss. 285.65(10) and 292.11(2), Wis. Stats., and s. NR 439.03(4)*, Wis. Adm. Code]

- D.2. Persons possessing or controlling a hazardous substance shall immediately notify the Department of any hazardous emission not in conformity with a permit or allowed by the Department under chs. NR 400 to 499. Notice shall be given as required by s. 292.11, Stats., and ch. NR 706.

Event

Timing

D.2.a. Hazardous substance air spill

Immediate call: 1-800-943-0003

[s. 292.11(2), Wis. Stats., and s. NR 445.08, Wis. Adm. Code*]

- D.3. The permittee shall report to the Department, in advance, schedules for planned shutdown and startup of air pollution control equipment and the measures to be taken to minimize the down time of the control equipment while the source is operating. Scheduled maintenance or any other scheduled event, including startup, shutdown or soot blowing procedures which have been approved by the Department under s. NR 436.03(2)(b), which causes an emission limit to be exceeded shall also be reported in advance to the Department. Advance reporting pursuant to this permit condition does not relieve any person from the duty to comply with any applicable emission limitations. Emissions in excess of the limits set in chs. NR 400-499, Wis. Adm. Code, may be allowed when the emissions are temporary and due to scheduled maintenance, startup or shutdown of operations carried out in accord with a plan and schedule approved by the Department. [s. NR 436.03(2)(b) and NR 439.03(6), Wis. Adm. Code]

- D.4. The permittee shall furnish to the Department, within a reasonable time specified by the Department, any information that the Department may request in writing to determine whether cause exists to revise, revoke or suspend this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Department copies of records required to be kept pursuant to this permit. [s. NR 407.09(1)(f)5., Wis. Adm. Code]

- D.5. The permittee shall submit the results of monitoring required by the permit to the Department according to the schedule established in Part I of this permit. Any such report shall clearly identify all instances of deviations from permit requirements. All such reports shall be signed by the responsible official for the source. [s. 285.17(2), Wis. Stats., and s. NR 439.03(1)(b), Wis. Adm. Code]

- D.6. Each report required under s. NR 439.03, Wis. Adm. Code, shall be certified by a responsible official as to its truth, accuracy and completeness. This certification and any other certification required under ch. NR 439 shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete. [s. NR 439.03(10), Wis. Adm. Code*]

- D.7. Except for information determined to be confidential under s. 285.70(2), Wis. Stats., any information or reports obtained by the Department in the administration of ss. 285.01 to 285.87 and 299.15, Wis. Stats., will be available for public inspection at the offices of the Department. [s. 285.70(1), Wis. Stats.]

- D.8. All certifications made under s. NR 439.03, Wis. Adm. Code, and all material statements and representations made in any report or notice required by this operation permit shall be truthful. [s. NR 439.03(11), Wis. Adm. Code*]

- D.9. Any document required under this permit and submitted to the Department, including reports, shall contain a certification by a responsible official that meets the requirements of s. NR 407.05(4)(j), Wis. Adm. Code. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

E. Right of Entry and Inspection.

The permittee shall allow authorized representatives of the Department to enter upon the permittee's premises, to have access to and examine any record relating to emissions or required to be kept, and to make any inspection necessary to ascertain compliance with air pollution control laws and the terms of this permit. The Department may, for the purpose of determining a source's compliance with applicable requirements, sample or monitor at reasonable times production materials or other substances or operational parameters. [ss. 285.13 and 285.19, Wis. Stats., and s. NR 439.05, Wis. Adm. Code]

F. Malfunction Prevention and Abatement Plans.

The owner or operator of any direct or portable source which may emit hazardous substances or emits more than 15 pounds in any day or 3 pounds in any hour of any air contaminant for which emission limits have been adopted shall prepare a written malfunction prevention and abatement plan to prevent, detect, and correct malfunctions or equipment failures which may cause any applicable emission limitation to be violated or which may cause air pollution. Any such plan shall be carried out by the owner or operator. The plan shall be updated at least every 5 years. The Department may require the plan to be submitted for review and approval. [s. NR 439.11, Wis. Adm. Code*]

G. Emission Control Action Plan.

For source(s) covered by this permit which emit 0.25 tons or more per day of any air contaminant for which air standards have been adopted, the permittee shall prepare an emission control action program, consistent with good industrial practice and safe operating procedures, for reducing the emission of air contaminants into the outdoor atmosphere during periods of an air pollution alert, air pollution warning or air pollution emergency declared under s. NR 493.03(2), Wis. Adm. Code. The emission control action program shall be in writing, available on the premises and is subject to review and approval by the Department on request. [s. NR 493.04, Wis. Adm. Code*]

H. Change in Ownership or Control.

In the event of a change in ownership or operational control of a source, the permittee shall file a written request for an administrative permit revision in accordance with s. NR 407.11, Wis. Adm. Code. The request should include a written agreement between the current and new owner or operator which sets forth a specific date for transfer of permit responsibility, coverage and liability. If the Department determines that no other change in this permit is necessary, this permit may be revised according to the administrative revision procedures in s. NR 407.11, Wis. Adm. Code. [s. NR 407.11(3)(a), Wis. Adm. Code]

I. Permit Flexibility, Revision, Suspension, and Revocation.

- I.1. Changes to the source which are not modifications and changes in permit content are regulated under the permit flexibility provisions of s. 285.60(4m), Wis. Stats., and s. NR 407.025, Wis. Adm. Code, and the permit revision provisions in ss. NR 407.11, NR 407.12, NR 407.13, NR 407.14, and NR 407.16, Wis.

Adm. Code.

- I.2. An operation permit may be suspended or revoked, in whole or in part, for cause. [ss. NR 407.09(1)(f)3. and NR 407.15, Wis. Adm. Code.]

J. Construction, Reconstruction, Replacement, Relocation or Modification.

- J.1. Unless the replacement is authorized by a permit or is exempt under s. NR 406.04, Wis. Adm. Code, replacement of the source(s) covered by this permit is prohibited. [s. 285.60(1)(a), Wis. Stats.]

- J.2. No person may commence construction, reconstruction, replacement, relocation or modification of a stationary source unless the person has a construction permit for the source or unless the source is exempt from the requirement to obtain a permit under s. 285.60(5), Wis. Stats., or under ch. NR 406, Wis. Adm. Code. Applications for the construction permit shall be submitted on forms which are available from the Department at its Madison headquarters and district offices. [s. 285.60(1)(a), Wis. Stats.]

Note: The address of the Madison headquarters is: Wisconsin Department of Natural Resources, Bureau of Air Management, PO Box 7921, Madison, WI 53707. Attention: Permit Application Forms.

- J.3. For new or modified sources for which no construction permit is required, the application for an operation permit shall be filed before the source commences construction or modification. [s. NR 407.04, Wis. Adm. Code]

K. Circumvention.

- K.1. The installation or use of any article, machine, equipment, process, or method which conceals an emission which would otherwise constitute a violation of an applicable rule is prohibited unless written approval has been obtained from the Department. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance and the unnecessary separation of an operation into parts to avoid coverage by a rule that applies only to operations larger than a specified size. [s. NR 439.10, Wis. Adm. Code]

- K.2. No one may render inaccurate any monitoring device or method required under ch. NR 439, Wis. Adm. Code, or in this permit. [s. NR 439.03(12), Wis. Adm. Code*]

- K.3. No person may knowingly falsify, tamper with, render inaccurate or fail to install any monitoring device or method required to be maintained or followed under the Clean Air Act. [Clean Air Act s. 113(c)(2)(C); 42 USC 7413(c)(2)(C), s. 285.65(13), Wis. Stats.]

L. Civil/Criminal Liability.

- L.1. Nothing in this permit shall be construed to relieve the permit holder from civil and/or criminal penalties under ss. 285.87 and 299.15, Wis. Stats., for violation of the terms or conditions of this permit, or for violation of ss. 285.01 to 285.87, 292.11(2) and 299.15, Wis. Stats., or of any rule or any special order issued under those sections except where the operation permit shield provisions of s. 285.62(10)(b), Wis. Stats., are applicable. [s. 285.62(10)(b), Wis. Stats.]

- L.2. The permittee has the duty to comply with all conditions of the permit. Any noncompliance with this

permit constitutes a violation of the Wisconsin statutes, the federal clean air act, or both, and is grounds for enforcement action; for permit suspension, revocation or revision; or, if allowed under s. 285.62(6), Wis. Stats., for denial of a permit renewal application. [ss. NR 407.14, NR 407.15, and NR 407.09(1)(f)1., Wis. Adm. Code, s. 285.60(7), Wis. Stats. and 42 USC 7661a]

L.3. The following items are provided per s. NR 407.09(1)(d) and (f), Wis. Adm. Code:

L.3.a. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit. [s. NR 407.09(1)(f)2., Wis. Adm. Code]

L.3.b. The filing of a request by the permittee for a permit revision or revocation, or the filing of a notification of planned changes under s. NR 407.025, Wis. Adm. Code, or of anticipated noncompliance, does not stay any permit condition. [s. NR 407.09(1)(f)3., Wis. Adm. Code]

L.3.c. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private property or any invasion of personal rights. [s. NR 407.09(1)(f)4., Wis. Adm. Code]

L.3.d. The provisions of this permit are severable. In the event of a successful challenge to any portion of the permit, all other portions of the permit remain valid and effective. [s. NR 407.09(1)(d), Wis. Adm. Code]

M. Recordkeeping Requirements.

M.1. The permittee shall maintain the following records, per s. NR 439.04, Wis. Adm. Code:

M.1.a. Records of all sampling, testing and monitoring conducted or required under chs. NR 400 to 499 or under this permit. Records of sampling, testing or monitoring shall include the following:

M.1.a.(1) The date, monitoring site and time and duration of sampling, testing, monitoring or measurements.

M.1.a.(2) The dates the analyses were performed.

M.1.a.(3) The company or entity that performed the analysis.

M.1.a.(4) The analytical techniques or methods used, including supporting information such as calibration and maintenance records of all original recording charts for continuous monitoring instrumentation including emissions or equipment monitors.

M.1.a.(5) The results of the analyses.

M.1.a.(6) The relevant operating conditions that existed at the time of sampling, testing, monitoring or measurement.

M.1.b. Records detailing all malfunctions which cause any applicable emission limitation to be exceeded, including logs to document the implementation of the plan required under s. NR 439.11, Wis. Adm. Code;

M.1.c. Records detailing all activities specified in any compliance schedule approved by the Department under

chs. NR 400 to 499, Wis. Adm. Code; and

- M.1.d. Any other records relating to the emission of air contaminants which may be requested in writing by the Department.
- M.2. The owner or operator of a source not subject to s. NR 445.05(6), Wis. Adm. Code, shall maintain the following records in writing at the source, as appropriate:
 - M.2.a. The hazardous air contaminants in Table 5 of s. NR 445.04 the source is capable of emitting.
 - M.2.b. The allowable emissions for each hazardous air contaminant identified in M.2.a. above for each emissions unit.
 - M.2.c. The methods used to calculate allowable emissions under M.2.b. above, including:
 - M.2.c.(1) All calculations which show the dimensional units for all values used.
 - M.2.c.(2) Emission factors used and reference to stack tests, mass balance calculations or EPA documents that the emission factor is based on.
 - M.2.d. Information to support exemption claims including fuels used, laboratory status or downwash minimization stack height calculations as appropriate. [s. NR 445.05(4r)(c), Wis. Adm. Code*]
- M.3. Owners and operators of facilities required to file emission inventory reports shall keep accurate and reliable records sufficient to enable verification of the reports by the Department. [s. NR 438.03(4), Wis. Adm. Code]
- M.4. Copies of all records and reports required under this permit shall be retained by the permittee for a period of 5 years. [s. NR 439.04(2), Wis. Adm. Code]

N. Compliance Certification.

- N.1. The permittee shall submit compliance certifications to the Department, and part 70 sources shall also submit this compliance certification to the United States Environmental Protection Agency. [s. NR 439.03(1)(c) and (9), Wis. Adm. Code]
 - N.1.a. The certification shall be submitted according to the schedule established in Part I of the permit. [s. NR 439.03(1)(c), Wis. Adm. Code]
 - N.1.b. The certification shall include the following:
 - N.1.b.(1) Identification of each permit term or condition that is the basis of the certification;
 - N.1.b.(2) The compliance status of the source with respect to each term or condition identified in N.1.b.(1);
 - N.1.b.(3) Whether compliance was continuous or intermittent;
 - N.1.b.(4) Method(s) used for determining the compliance status, currently and over the previous 12 month pe-

riod;

- N.1.b.(5) Compliance status with respect to 40 CFR 68 (Accidental Release Prevention) including registration and submission of the risk management plan, as specified in 40 CFR 68.160 and 68.150, respectively, if applicable.
- N.1.b.(6) Other information required to determine the compliance status of the source, as specified in this permit. [s. NR 439.03(8), Wis. Adm. Code]
- N.2. Compliance certifications shall be signed by a responsible official of the source. The responsible official shall certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [s. NR 439.03(10), Wis. Adm. Code]

O. Required Air Emission Inventory Reports.

The permittee shall annually submit to the Department an emission inventory report of annual, actual emissions or throughput information in accordance with ch. NR 438, Wis. Adm. Code. [s. NR 438.03, Wis. Adm. Code]

P. Annual Emission Fees.

The permittee shall pay an annual emissions fee to the Department at the rate specified in s. 285.69(2), Wis. Stats. [ss. NR 410.04 and NR 407.09(1)(e), Wis. Adm. Code]

Q. General Provisions for Hazardous Air Pollutant MACT Standards.

The general provisions in ch. NR 460, Wis. Adm. Code, apply to any permittee that is affected or becomes affected by a standard promulgated by EPA under section 112 of the act (42 USC 7412). [s. NR 460.01, Wis. Adm. Code]

R. Stratospheric Ozone Protection.

R.1. Federal Requirements. (Call 1-800-296-1996 for information)

R.1.a. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

R.1.a.(1) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to section 82.106.

R.1.a.(2) The placement of the required warning statement must comply with the requirements pursuant to section 82.108.

R.1.a.(3) The form of the label bearing the required warning statement must comply with the requirements pursuant to section 82.110.

R.1.a.(4) No person may modify, remove or interfere with the required warning statement except as described in section 82.112.

R.1.b. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in 40 CFR Part 82, Subpart B:

R.1.b.(1) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to section 82.156.

R.1.b.(2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to section 82.158.

R.1.b.(3) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to section 82.161.

R.1.b.(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to section 82.166 (the term, “MVAC-like appliance”, is defined in section 82.152).

R.1.b.(5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to section 82.156.

R.1.b.(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to section 82.166.

R.1.c. If the permittee manufactures, transforms, imports or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

R.1.d. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.

R.1.e. The permittee may be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

[s. 285.65(12), Wis. Stats.]

R.2. State Requirements. (Call 1-608-264-6049 for information)

R.2.a. During the salvaging, dismantling or transporting of refrigeration equipment, no person may knowingly or negligently release ozone-depleting refrigerant to the environment, except for minimal releases that occur as a result of efforts to transfer ozone-depleting refrigerant into storage tanks. [s. 285.59(2r)(a), Wis. Stats.*]

R.2.b. No person may knowingly or negligently release from a storage tank to the environment ozone-depleting refrigerant that was removed during the salvaging, dismantling or transporting of refrigeration equipment, except for minimal releases that occur as a result of efforts to transfer ozone-depleting refrigerant into refrigeration equipment or other storage tanks. [s. 285.59(2r)(am), Wis. Stats.*]

R.2.c. No person may salvage or dismantle any refrigeration equipment unless:

R.2.c.(1) That person holds and prominently displays an annual registration of certification obtained from the Department under s. NR 488.04, Wis. Adm. Code;

R.2.c.(2) That person uses refrigerant recovery equipment approved by the Department under s. NR 488.07, Wis. Adm. Code, to transfer remaining ozone-depleting refrigerant from each piece of refrigeration equipment into storage tanks; and

R.2.c.(3) Individuals who use the approved refrigerant recovery equipment have, or are working under the direct supervision of individuals who have, the qualifications required under s. NR 488.08, Wis. Adm. Code. [s. NR 488.03(3), Wis. Adm. Code*]

R.2.d. Any person who sells, gives or transports refrigeration equipment to a scrap metal processor shall:

R.2.d.(1) Transfer ozone-depleting refrigerant from the refrigeration equipment into a storage tank using approved refrigerant recovery equipment or obtain and possess documentation that another person performed the transfer; and

R.2.d.(2) Provide documentation to the scrap metal processor that he or she has complied with R.2.d.(1).

Note: Sample forms for the documentation of compliance with R.2.d.(1) are available from the Bureau of Air Management CFC Program.

Exemption: R.2.d.(1) and R.2.d.(2) do not apply to a person who sells, gives or transports refrigeration equipment to a scrap metal processor when that processor has agreed in writing to transfer the ozone-depleting refrigerant into a storage tank using approved refrigerant recovery equipment and that the processor is registered with the Department under s. NR 488.04. [s. NR 488.05, Wis. Adm. Code*]

R.2.e. Any person who transports, for the purposes of salvaging or dismantling, refrigeration equipment that contains ozone-depleting refrigerant shall certify to the Department that person will not knowingly or negligently release ozone-depleting refrigerant to the environment, except for minimal releases that occur as a result of refrigerant recovery efforts. This certification shall be submitted annually, along with a description of the safe transport methods to be used, and the fees required under s. NR 488.11, Wis. Adm. Code. [s. NR 488.10, Wis. Adm. Code*]

PART III
PRE-APPROVED PROJECTS/FACILITY CHANGES

Part III. contains construction permit requirements and permits any future projects/facility changes listed in Part III.A. of this construction permit and operation permit. All projects/facility changes installed under Part III.A. of construction permit 07-SJZ-075 and operation permit 617056660-P10 after the issuance of this operation permit shall operate under the conditions established when the projects/facility change was installed even if the Environmental Cooperative Agreement expires or is revoked. If the Environmental Cooperative Agreement expires or is revoked for any reason, the installation of any future project/facility change under Part III.A. of this operation permit will be prohibited. All future projects shall then be permitted according to the traditional NR 406, Wis. Adm. Code, construction permitting program. If the Environmental Cooperative Agreement expires or is revoked for any reason, the permittee shall comply with any delayed compliance deadlines and practical interim requirements established by the Department in a written revocation decision until the Department issues the approvals required under chs. 280 to 295, Wis. Stats, that were replaced by the above referenced Environmental Cooperative Agreement.

III. A. Authorization of Future Projects/Facility Changes

The permittee may modify or construct any of the following projects/facility changes as approved under air pollution control permit 07-SJZ-075 and adopted by this operation permit, during the term of the Environmental Cooperative Agreement and new source permit 07-SJZ-075, subject to all applicable conditions of Part III of this permit. All other projects shall be permitted according to NR 406, Wis. Adm. Code, construction permitting program. If the Environmental Cooperative Agreement expires or is revoked for any reason, the installation of any future project/facility changes under Part III.A. of this operation permit will be prohibited. All future projects shall then be permitted according to the traditional NR 406, Wis. Adm. Code, construction permitting program. Potential to emit emissions (after controls) from the following projects/facility changes listed below shall be limited to less than 100 tons per year for each of the following criteria pollutants: carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds.²⁴ See Part III.K.1. for requirements. The facility shall meet any new state or federal requirement that is triggered as a result of the installation of processes under Part III.A. The operation permit shall be revised in accordance with procedures in s. NR 407.11, s. NR 407.12, or s. NR 407.13, of the Wis. Adm. Code, as appropriate, if any new state or federal requirements are triggered.

Project/Facility Change	Description
(1) Spray/Paint Booth Coating	Modify OR install a spray coating booth, effectively similar to that of existing spray booth Process P09. Such a project or facility change does not entail web coating.
(2) Ceramic Fiber Making	Modify OR install a ceramic fiber making line, effectively similar to that of existing ceramic fiber Process P15, P16, P17, P18, and P19.
(3) Chromium Plating	Modify, install, OR reconstruct a chromium electroplating operation, effectively similar to that of the existing chrome plating Process P08 and P14.
(4) R&D/Pilot/Development Projects	Modify OR install a process for manufacturing research, development, scale-up, OR prototype, which is NOT otherwise included in pre-approvals (1), (2), (3), or (5) of this permit that is not listed in s. NR 405.02(22)(a)1, Wis. Adm. Code, and does not require a permit under ch. NR 405 or NR 408, or under s. NR 446.05, Wis. Adm. Code.
(5) Web Coating	Modify a web coating line, OR install one or more web coating lines.

²⁴ Because potential to emit emissions (after controls) are limited to less than 100 tons per year for carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds, an environmental assessment is not required under section NR 150.03(8)(b)1, Wis. Adm. Code.

Project/Facility Change	Description
(5) Web Coating (continued)	<p>The term web coating line has the meaning assigned at 40 CFR 63 Subpart JJJJ; that is, <i>any number of work stations, of which one or more applies a continuous layer of coating material across the entire width or any portion of the width of a web substrate, and any associated curing/drying equipment between an unwind or feed station and a rewind or cutting station.</i></p> <p>Any of the web coating lines in existence at the time of issuance of this permit may be modified according to requirements contained in Part III of this permit. Installation of one or more new web coating lines and any subsequent or modification of such lines, may include, but is not limited to, a web coating line similar in design and function to that of the existing tape coating line [Process P07], any of the optical film coating lines [Processes P06, P10, P11, P12, and P13], the E-Beam [Process I2], hot melt coater [Process I6], elastic coating 1 [Process I7], and elastic coating 2 [Process I8].</p> <p>The term "web coating line," as used in this permit includes:</p> <ul style="list-style-type: none"> • ancillary equipment of the web coating line for processing and/or handling raw materials associated with coating operations, to the extent that these operations are subject to 40 CFR 63 Subpart JJJJ rather than subject to 40 CFR 63 subpart HHHHH [Miscellaneous Coating Manufacturing]. • Installation of a thermal oxidizer or catalytic oxidizer, as may be needed to meet the emissions standards of 40 CFR 63 subpart JJJJ [Note: installation of a solvent recovery unit as an air pollution control device is not included under this pre-approved project]

III. B. Requirements that apply to all projects/facility changes authorized under Part III.A: General

1. The facility shall meet the facility-wide VOC emissions cap of 249 tons per year, summed over a rolling 12 month period.
2. No project/facility change authorized under Part III.A of this permit shall constitute any of the stationary sources named under 40 CFR 52.21(b)(1)(i)(a) and s. NR 405.02(22)(a), Wis. Adm. Code, for which the threshold for a major stationary source is 100 tons per year of any regulated NSR pollutant.
3. VOC emissions across the entire facility shall be compiled for each month, by the end of the following month, according to the following:
 - (a) For each month:
 - COMPILE:** daily VOC emissions data for all processes at the facility
 - CALCULATE:** VOC emissions for each month according to I.J.1.b.(2) and III.K.1.
 - CALCULATE:** annual VOC emissions by summing the emissions over a rolling 12 month period, according to I.J.1.b.(3)
 - DUE:** by the end of the following month and include this emission data in the Semi-Annual Monitoring Summary Report
4. The permittee shall maintain a log which identifies each instance of a project/facility change made under authorization of Part III.A of this permit
5. For each instance of a project/facility change made under authorization of Part III.A of this permit, the following notifications shall be provided to Wisconsin DNR.
 - (a) Initial Notification.
 1. for R&D/Pilot/Development projects authorized under Part III.A.(4) of this permit, the notification shall be sent to Wisconsin DNR within 10 days prior to implementation of the project/facility change, and shall include a description of how records will be maintained for that project for purposes of assuring continued compliance with the facility-wide emissions limit as well as any relevant limits. The notification shall also include an operating schedule, explanation of any calculations, emission factors, or other information which will enable the recordkeeping to be performed.
 2. the Wisconsin DNR shall approve or deny the notification requesting a research and test exemption under s. NR 406.04(1)(i), Wis. Adm. Code, for a R&D/Pilot/Development project in writing within 10 business days of being received. During this 10 day period, the Wisconsin DNR will decide if a public notice, an opportunity for public comment, and/or a public hearing of the notification requesting a research and test exemption are necessary.
 3. for all other projects authorized under Part III.A of this permit, the notification shall be sent to Wisconsin DNR within 3 days prior to implementation of the project/facility. Recordkeeping for the projects listed in Part III.A. will be performed according to requirements of the relevant section in this operation permit for these projects.
 - (b) Start-up Notification. Notify Wisconsin DNR within 30 calendar days after start-up of any project/facility change authorized under Part III.A of this permit. This notification shall include the following information.
 1. a general description of the project, emission calculations, emission rates, identification of which pre-approval under Part III.A of the permit applies, and an explanation of why the project is covered under that pre-approval.
 2. a listing of all applicable permit requirements for the pre-approved project/facility change [e.g. a web coating line installed without a thermal oxidizer is not subject to the thermal oxidizer requirements delineated in Part III.J.]
 3. how VOC emissions will be tracked against the facility cap in addition to requirements in Part I.J.1. [including a description of emissions factors]

4. identification of any ch. NR 445, Wis. Adm. Code substances, and the analysis for each, as required under this permit, demonstrating that the ch. NR 445, Wis. Adm. Code emission threshold is satisfied, or that through modeling the concentration of the ch. NR 445, Wis. Adm. Code substance at the property line is below required levels.
5. identification of any of the criteria pollutants NO_x, SO_x, or PM, and modeling or other demonstration, as required under this permit, showing that the NAAQS and ambient air increments will not be exceeded at the property line of the facility²⁵
6. Applicable requirements for projects undertaken per the construction permit will be incorporated into the operation permit using the procedures outlined within s. NR 407.07(3), Wis. Adm. Code upon renewal of the operation permit or through permit revision in accordance with procedures in s. NR 407.11, s. NR 407.12, or s. NR 407.13, Wis. Adm. Code, whichever is most appropriate.

²⁵ The modeling analysis shall include the most recent list of stacks and stack parameters.

III. C. Requirements that apply to all projects/facility changes authorized under Part III.A: Evaluation of ch. NR 445, Wis. Adm. Code substances

1. This facility shall apply ch. NR 445, Wis. Adm. Code.
2. No Table B (pesticides, rodenticides, insecticides, herbicides, and fungicides) or Table C (pharmaceuticals) substances of ch. NR 445, Wis. Adm. Code shall be emitted by any project/facility change authorized under Part III.A of this permit.
3. All modeling of emissions performed in connection with evaluation of ch. NR 445, Wis. Adm. Code substances, as noted herein, shall be consistent with *WDNR Dispersion Modeling Guidelines* (February 2007).²⁶
4. Prior to implementation of any project/facility change authorized under Part III.A of this permit, each Table A substance of ch. NR 445, Wis. Adm. Code which will be emitted by the equipment of that project/facility change shall be evaluated according to the procedures set forth in items III.C.5 of Part III, with the following exceptions.
 - (a) Evaluation of Table A substances of ch. NR 445, Wis. Adm. Code is not required for any project/facility change authorized under Part III.A.5. All such project/facility changes are associated with an affected source defined by and subject to or subsumed under [according to the streamlining analysis] a standard promulgated under section 112 of the Clean Air Act. [s. NR 445.01(1)(b), Wis. Adm. Code]
 - (b) Evaluation of Table A substances of ch. NR 445, Wis. Adm. Code is required only for substances other than chromium for any project/facility change authorized under Part III.A.3. All such project/facility changes involve an affected source defined by and subject to a standard promulgated under section 112 of the Clean Air Act. [s. NR 445.01(1)(b), Wis. Adm. Code]

5. PROCEDURE: Evaluation of Table A NR 445 Hazardous Air Pollutants

- (a) **IDENTIFY:** all Table A ch. NR 445, Wis. Adm. Code substances that will be emitted by the new or modified equipment of the proposed project/facility change, consistent with the level of due diligence defined at s. NR 445.02(5), Wis. Adm. Code.
- (b) **QUANTIFY:** potential hourly emissions of each Table A substance of NR 445 identified at Condition III.C.4.(a) by emission point for the equipment of the proposed project/facility change
- (c) **SUM:** for each substance identified at Condition III.C.4.(a), sum for each of the four stack categories of Table A the potential hourly emissions from equipment of the proposed project/facility change, with exception of any exempt emissions, such as those associated with equipment subject to section 112 of the Clean Air Act [s. NR 445.07(6)(b)1. and s. NR 445.01(1)(b), Wis. Adm. Code]
- (d) **COMPARE:** each group (the four stack categories) of emissions with the corresponding threshold found in Column (c), (d), (e), or (f) of Table A
 - IF:** no group of emissions exceeds the respective thresholds, **THEN:** document the analysis and submit with the Start-up Notification under Condition III.B.5.(b).
 - OTHERWISE:** proceed to Condition III.C.5.(e)
[s. NR 445.07(6)(b)2. and s. NR 455.07(6)(c), Wis. Adm. Code]
- (e) **MODEL:** to determine the maximum potential concentration of the substance off the source property, including potential emissions of the substance from both the proposed project/facility change and the rest of the facility, with exception of any exempt emissions, such as those associated with equipment subject to section 112 of the

²⁶ The modeling analysis shall include the most recent list of stacks and stack parameters.

Clean Air Act [s. NR 445.07(6)(c), Wis. Adm. Code]. **IF:** this concentration is no more than the corresponding concentration in column (g) of Table A, **THEN:** document the analysis and submit with the Start-up Notification under Condition III.B.5.(b), **OTHERWISE:** proceed to Condition III.C.5.(f) or (g).²⁷

(f) **APPLY:** one of the compliance methods of s. NR 445.08(2)(a), (b), (c), (d), or (e), Wis. Adm. Code and reapplying the modeling analysis, if applicable. Any operating or other limitation (e.g. limiting throughput or hours of operation of an emissions unit) which is applied under s. NR 445.08(2)(a), (b), (c), (d), or (e), Wis. Adm. Code shall be included in the Start-up Notification under Condition III.B.5.(b), along with suitable recordkeeping which provides ongoing demonstration of compliance with that operating or other limitation. [s. NR 445.08(2)(a) - (e), Wis. Adm. Code]

(g) **APPLY:** BACT or LAER, in lieu of a limitation under Condition III.C.5.(f), if this is identified as an option in column (i) of Table A [s. NR 445.08(2)(f), Wis. Adm. Code]. Submit a proposal for BACT or LAER, as appropriate, to WDNR, and do not proceed with the proposed change until approved by WDNR.

²⁷ The modeling analysis shall include the most recent list of stacks and stack parameters.

III. D. Requirements that apply to all projects/facility changes authorized under Part III.A: Evaluation of PM, NO_x and SO_x emissions

1. Prior to implementation of any project/facility change authorized under Part III.A of this permit which will involve an increase of potential emissions of PM, NO_x, **AND/OR** SO_x, the permittee shall assess compliance with the corresponding National Ambient Air Quality Standards and PSD increments. The facility-wide dispersion model, as noted at Part I.J.2.a, shall be revised according to the potential emissions of PM, NO_x, **AND/OR** SO_x.
2. All modeling shall be performed in accordance with *WDNR Dispersion Modeling Guidelines* (February 2007).²⁸
3. **IF:** the modeling demonstrates compliance with the PSD increments and National Ambient Air Quality Standards (NAAQS) for each of the substances PM, NO_x, and SO_x which will be emitted by the project/facility change authorized under Part III.A, **THEN:** the permittee may proceed with the project/facility change, according to all other applicable requirements of Part III of this permit. The permittee shall submit results of the updated dispersion model with the Start-up Notification under Condition III.B.5.(b).
4. **IF:** compliance with one or more PSD increments or NAAQS of PM, NO_x, and SO_x is not demonstrated by modeling performed under Part III.D.1, **THEN:** the permittee may re-do the dispersion model with revised stack parameters, work-practice limits, or other constraints which result in meeting the PSD increments and NAAQS. The permittee shall submit results of this dispersion model in Start-up Notification under Condition III.B.5.(b)., along with the corresponding constraints, and record-keeping which is put in place to demonstrate ongoing compliance with the constraints.

III. E. Requirements that apply to all projects/facility changes authorized under Part III.A: Stack Parameters

1. The permittee shall maintain a current list of stacks and corresponding parameters. Prior to implementation of any project/facility change authorized under Part III.A of this permit which requires assessment by dispersion modeling under Part III.C or D, the permittee shall revise the list of stacks and their corresponding parameters with the list of stacks and their corresponding parameters used in the most recent dispersion model showing compliance with ch. NR 445, Wis. Adm. Code, PSD increments and NAAQS. The list of stacks and stack parameters shall be continuously updated after a new process is installed so future modeling analyses includes the most current list of stacks and stack parameters.
2. No project/facility change authorized under Part III.A of this permit shall commence operation until the actual dimensions of all stacks of the facility are according to those listed in Part III.E.1.

III. F. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Spray/Paint Booth Coating

1. The permittee shall meet all conditions at section H of Part I of this permit for each new or modified spray/paint booth coating project. These requirements shall apply separately to each such spray booth including the LACT requirements in which each spray booth shall utilize high volume low pressure systems (HVLP) according to I.H.3.a.(1) and each spray booth shall be allotted a VOC emissions limit of 14 ton/year, summed over a rolling 12 month period.

III. G. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Ceramic Fiber Making

1. The permittee shall meet all conditions at section I of Part I of this permit for each new or modified ceramic fiber maker. These requirements shall apply to the collection of all such lines with the emission limitations from section I of Part I applying across the collection of lines as follows.

(a) I.I.1.a.(1) Formaldehyde emissions from all ceramic fiber lines combined to be no more than 1 ton per year, summed over a rolling 12 month period

²⁸ The modeling analysis shall include the most recent list of stacks and stack parameters.

(b) I.I.1.a.(2) Formaldehyde emissions from processes P15 (CF1), P16 (CF2), P19 (CF5), and P22 (CF6), and any existing ceramic fiber lines modified under authority of Part III.A of this permit, and any new ceramic fiber lines installed under authority of Part III.A of this permit, shall be controlled by the best available control technology (BACT), per s. NR 445.08(2)(f), Wis. Adm. Code. BACT has been determined to be controlling formaldehyde emissions by at least 41%, on average, between all process lines [P15, P16, P19, P22, and any modified/new processes under Part III.A] while using the worst case raw material family of fibers.

(c) I.I.2.a.(1)(a) VOC emissions from all existing, modified, and new ceramic fiber lines, combined, including any existing ceramic fiber lines subject to the requirements in Part I.I.2.a.(1)(a) shall not exceed 81 tons per year, summed over a rolling 12 month period, established as the latest available control technology (LACT), per s. NR 424.03(2)(c), Wis. Adm. Code.

(d) I.I.2.a.(1)(c) During the use of worst case raw materials, VOC emissions from processes P15 (CF1), P16 (CF2), P19 (CF5), P22 (CF6), and any existing ceramic fiber lines modified under authority of Part III.A of this permit, and any new ceramic fiber lines installed under authority of Part III.A of this permit, shall be controlled at a control efficiency of at least 80%, on average, between all process lines controlled.

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks</p>	<p>(1) The concentration of total chromium at the exhaust of each affected source shall be no more than 0.015 mg/dscm. [40 CFR 63.342(c)(1)(i)]</p> <p>(2) The emission limitation under III.H.1.a.(1) apply during tank operation as well as during periods of startup and shutdown. The emission limitations do not apply during periods of malfunction. However, work practice standards that address operation and maintenance and that are required by III.H.1.b. shall be followed during malfunctions. [40 CFR 63.342(b)(1)]</p> <p>(3) Each new or reconstructed affected source shall be in compliance with the emission limits and corresponding applicable requirements as of start-up. [40 CFR 63.343(a)(2)]</p>	<p>(1) OPERATE and MAINTAIN: the affected source, including associated air pollution control devices and monitoring equipment, in a manner consistent with good air pollution control practices, consistent with the operation and maintenance plan required by paragraph III.H.1.b.(3) of this section, including during periods of startup, shutdown, and malfunction [40 CFR 63.342(f)(1)(i)]</p> <p>(2) If a group of tanks share a common add-on air pollution control device, then compliance with the emission limit shall be determined according to Section 40 CFR 63.344(e), as applicable. [40 CFR 63.342(b)(2)]</p> <p>(3) MALFUNCTIONS: the permittee shall correct each malfunction as soon as practicable, according to the O&M Plan [40 CFR 63.342(f)(1)(ii)]</p> <p>(4) OPERATION AND MAINTENANCE PLAN [O&M] [40 CFR 63.342(f)(3)]</p> <p>(a) The permittee shall prepare an O&M Plan with content according to 40 CFR 63.342(f)(3)(i). This requirement may be met in part or in full using (SOP) manuals, OSHA plans, and/or other existing plans.</p> <p>(b) RETAIN: retain the O&M Plan for life of the 40 CFR 63 subpart N Affected Source, OR until the source is no longer subject to 40 CFR 63 subpart N. Previous versions of the O&M Plan shall be retained</p>	<p>(1) IF: the permittee elects to meet the emissions standard for chromium by applying a composite mesh-pad [CMP] system air pollution control device, OR: by applying a combination of a CMP AND a packed bed scrubber air pollution control device, THEN:</p> <p>(a) INSPECT and RECORD: visually inspect, once per quarter, the composite mesh-pad [CMP] system air pollution control device as follows:</p> <ul style="list-style-type: none"> • overall CMP inspection, to ensure proper drainage, no chronic acid buildup on pads, and no evidence of chemical attack on structure • the back part of the mesh pad closest to the fan to ensure no breakthrough of chromic acid mist • ductwork from the tank to the CMP to ensure no leaks <p>[40 CFR 63.342 Table 1, 40 CFR63.346(b)(1)]</p> <p>(b) PERFORM and RECORD: washdown of the composite mesh-pads, according to the frequency specified by the manufacture, or equal specification [40 CFR 63.342 Table 1, 40 CFR63.346(b)(1)]</p> <p>(c) MONITOR and RECORD: pressure drop across the composite mesh-pad system air pollution control device Frequency: once per day that the affected source is operating [40 CFR 63.343(c)(1)(ii)]</p> <p>The affected source is in compliance with the standards if it is operating within ± 1 inch H₂O column</p>

²⁹ The following notifications will be satisfied with notifications required under Part III.B.5.

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)</p>		<p>for 5 yrs</p> <p>(c) IF: a malfunction occurs AND actions taken are inconsistent with the O&M Plan, THEN:</p> <ul style="list-style-type: none"> • RECORD: the actual actions taken, AND • REPORT: by telephone [Due: 2 working days after commencing the actions inconsistent with the plan], AND • SUBMIT: by written letter [due: 7 work days after the end of the event] <p>(d) IF: a malfunction occurs which is inadequately addressed by the O&M Plan, THEN REVISE: the O&M Plan within 45 days of the malfunction event</p> <p>(5) SUBMIT: Semiannual Summary Report Due: each January 30 and July 30, for the preceding calendar half-year reporting period Content: according 40 CFR 63.347(g)(3) [40 CFR 63.347(g)(1)]</p> <p>IF: more than one monitoring device is used to demonstrate compliance with the emission standards, THEN REPORT: the results for each monitoring device, EXCEPT IF: one monitoring device is a backup [40 CFR 63.347(g)(4)]</p> <p>IF: an emission limit is exceeded, THEN SUBMIT: the Summary Report quarterly, until a request to reduce reporting frequency is approved according to 40 CFR 63.347(g)(2) [40 CFR 63.347(g)(1)(ii)]</p>	<p>of the pressure drop value established during the initial performance test, OR is operating within the range of compliant values for pressure drop established during multiple performance tests [40 CFR 63.343(c)(1)(ii)]</p> <p>(2) IF: the permittee elects to meet the emissions standard for chromium by applying a packed bed scrubber system air pollution control device, THEN:</p> <p>(a) INSPECT and RECORD: visually inspect, once per quarter, the packed bed scrubber air pollution control device as follows:</p> <ul style="list-style-type: none"> • to ensure there is proper drainage, no chromic acid buildup on the packed beds, and no evidence of chemical attack on the structural integrity of the device • Visually inspect back portion of the chevron blade mist eliminator to ensure that it is dry and there is no breakthrough of chromic acid mist • ductwork from tank or tanks to the control device to ensure there are no leaks [40 CFR 63.342 Table 1, 40 CFR63.346(b)(1)] <p>(b) ADD: fresh makeup water to the top of the packed bed, according to 40 CFR 63.342 Table 1, and according to the frequency specified by the manufacture, or equal specification [40 CFR 63.342 Table 1, 40 CFR63.346(b)(1)]</p> <p>(c) MONITOR and RECORD: velocity pressure at the inlet to the packed-bed system, AND pressure drop across the scrubber system Frequency: once per day that the affected source is operating</p>

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)</p>		<p>(6) For each new OR reconstructed affected source:²⁹</p> <p>(a) SUBMIT: notification of construction or reconstruction, containing the information according to 40 CFR 63.345(b)(2) and (3), as applicable Due: "as soon as practicable before the construction or reconstruction is planned to commence" [40 CFR 63.345(b)(1)]</p> <p>(b) SUBMIT: notification of the actual date of startup within 30 calendar days after such date [40 CFR 63.347(c)(2)(iii)]</p> <p>(c) SUBMIT: Notification of Compliance Status (NCS), containing the information at 40 CFR 347(e) and (f) as applicable Due: within 90 day following completion of the compliance demonstration of 40 CFR 63.7 and 40 CFR 343(b) [40 CFR 63.347(e)]</p> <p>(7) IF: multiple sources are controlled by a common add-on air pollution control device, INCLUDING IF: at least one of the sources is NOT a MACT N Affected Source, THEN:</p> <p>(a) MEASURE: outlet chromium concentration according to 40 CFR 63.344(e), AND</p> <p>(b) SUBMIT: the compliance measurements and calculations with the Notification of Compliance Status required by 40 CFR 63.347(e) [40 CFR 63.344(e)]</p>	<p>[40 CFR 63.343(c)(2)(ii)]</p> <p>The affected source is in compliance with the standards if it is operating within:</p> <ul style="list-style-type: none"> • ±10% of the velocity pressure value established during the initial performance test, AND ±1 inch of H2O column of the pressure drop value established during the initial performance test, OR • within the range of compliant operating parameter values established during multiple performance tests [40 CFR 63.343(c)(2)(ii)] <p>(3) IF: the permittee elects to meet the emissions standard for chromium by applying a fiber-bed mist eliminator air pollution control device, THEN:</p> <p>(a) INSPECT and RECORD: visually inspect, once per quarter, the fiber-bed mist eliminator air pollution control device as follows:</p> <ul style="list-style-type: none"> • the fiber-bed unit and prefiltering device to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack on the structural integrity of the devices • ductwork from tank or tanks to the control device to ensure there are no leaks [40 CFR 63.342 Table 1, 40 CFR63.346(b)(1)] <p>(b) PERFORM and RECORD: washdown of fiber elements, according to the frequency specified by the manufacture, or equal specification [40 CFR 63.342 Table 1, 40 CFR63.346(b)(1)]</p> <p>(c) MONITOR and RECORD: pressure drop across the across the fiber-bed mist eliminator, AND pressure drop across the control device installed upstream of</p>

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)</p>			<p>the fiber bed to prevent plugging Frequency: once per day that the affected source is operating [40 CFR 63.343(c)(4)(ii)]</p> <p>The affected source is in compliance with the standards if it is operating within:</p> <ul style="list-style-type: none"> • ±1 inch of H2O column of the pressure drop value established during the initial performance test, OR • the range of compliant operating parameter values established during multiple performance tests [40 CFR 63.343(c)(4)(ii)] <p>(4) IF: the permittee elects to meet the emissions standard for chromium by applying a foam blanket air pollution control device, THEN:</p> <p>(a) MONITOR and RECORD: foam blanket thickness Frequency: according to 40 CFR 63.343(c)(6)(ii) and (iii) [40 CFR 63.343(c)(6)(ii)]</p> <p>The affected source is in compliance with the standards if it is operating at a foam blanket thickness within:</p> <ul style="list-style-type: none"> • ≥ the value established during the performance test, OR • < 1 inch [if option elected] [40 CFR 63.343(c)(6)(ii)] <p>(5) IF: the permittee elects to meet the emissions standard for chromium by using both a fume suppressant AND an add-on air pollution control device, THEN:</p>

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)</p>			<p>(a) PERFORM: as applicable and according to 40 CFR 63.343(c)(7):</p> <ul style="list-style-type: none"> • monitoring according to 40 CFR 343(c)(1) - (6), AND • work practice standards of Table 1 of 40 CFR 63.342 [40 CFR 63.343(c)(7)] <p>(b) MONITOR and RECORD: the date and time that fume suppressants are added to the electroplating or anodizing bath [40 CFR 63.34b(b)(13)]</p> <p>(6) All monitoring devices used to demonstrate ongoing compliance with the emissions standard [through an applicable site-specific operating parameter] shall be installed to assure representative measurement, and shall be installed, operated, and calibrated according to manufacturer's written specifications, or equivalent. [40 CFR 63.344(d)(2)]</p> <p>(7) RECORD: each instance of maintenance of:</p> <ul style="list-style-type: none"> (a) the affected source, AND (b) the CMP air pollution control device, AND (c) monitoring equipment [40 CFR 63.346(b)(2)] <p>(8) RECORD: total process op. time for the reporting period [40 CFR 63.346(b)(11)]</p> <p>(9) RECORD: for each instance of a malfunction of the affected source [which could reasonably result in failure to meet an emission standard] and associated air pollution control devices and monitoring equipment:</p> <ul style="list-style-type: none"> (a) the occurrence, duration, and cause (if known) (b) each specific period (date, time of start/end) of excess

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)			emissions (c) actions taken during malfunction IF inconsistent with the O&M plan (d) other records as needed to demonstrate consistency with the O&M Plan [40 CFR 63.346(b)(3)-(5), (9)-(10)] (10) CONDUCT: an initial performance test, according to 40 CFR 63.343(b)(1) and 40 CFR 63.7, as applicable. (a) Due: within 180 days of startup (b) IF: an air pollution control device is used to meet the chromium emissions limit, THEN: establish, during the performance test, a site-specific operating parameter as applicable: <ul style="list-style-type: none"> • IF: use a composite mesh-pad [CMP] system air pollution control device, OR IF: use a CMP in conjunction with a packed bed scrubber, THEN: pressure drop across the CMP [40 CFR 63.343(c)(1)(i) and (c)(3)] • IF: use a packed bed scrubber air pollution control device, THEN: pressure drop across the system, AND velocity pressure at the common inlet of the control device [40 CFR 63.343(c)(2)(i)] • IF: use a wetting agent-type OR combination wetting agent-type/foam blanket fume suppressant, THEN: surface tension of the bath [40 CFR 63.343(c)(5)(i)] • IF: use a fiber bed mist eliminator, THEN: pressure drop across the across the fiber-bed mist eliminator, AND pressure across the control device installed upstream of the fiber bed to prevent plugging [40 CFR 63.343(c)(4)(i)] • IF: use a foam blanket, THEN: thickness of the foam blanket, OR MAY ELECT: a default criteria for the foam blanket thickness of ≥ 1 inch [40 CFR 63.343(c)(6)(i)]

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (continued)</p>			<p>(11) For each performance test: (a) WRITE: a test plan [submit to the Administrator only if requested] [40 CFR 63.344(a)] (b) DOCUMENT: test results according to 40 CFR 63.344(a)(1)-(9) AND 346(b)(6), including conditions during the performance tests, as needed to demonstrate compliance [40 CFR 63.344(a)] (c) USE: test methods according to test methods at 40 CFR 63.344(c), (d) NOTIFY: in writing, within 60 days prior to the test [40 CFR 63.347(d)]</p>
<p>2. Particulate Matter Emissions</p>	<p>(1) The most restrictive of the applicable limit found in [s. NR 415.05(1), Wis. Adm. Code] AND</p> $E = 3.59 (P)^{0.62}$ <p>where, E is the emission limit in pounds per hour, and P is the process weight rate in tons per hour. [s. NR 415.05(2), Wis. Adm. Code]</p> <p>OR</p> <p>A more restrictive particulate matter emission limit determined by modeling. [s. 285.65(7), Wis. Stats.]</p>	<p>(1) If a control device is required for particulate matter emissions to meet the National Ambient Air Quality Standards (NAAQS), then the facility shall perform the associated monitoring required for that control device in accordance with the Wis. Adm. Code.</p>	<p>(1) REFERENCE TEST METHOD: PM IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17 including condensable backhalf emissions (U.S. EPA Method 202). [s. NR 439.06(1), Wis. Adm. Code.]</p> <p>(2) The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code]</p> <p>(3) RECORD: the appropriate operating data as necessary on the control device, if required, to satisfy requirements in the Wis. Adm. Code.</p> <p>(4) RECORD: each inspection, check, and any maintenance or repairs performed on the control device, if required, including the date and time of the action, initials of inspector, and the results. [ss. NR 439.04(1)(d), and NR 407.09(1)(c) Wis. Adm. Code]</p>

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
2. Particulate Matter Emissions (continued)			(5) MAINTAIN: the operating parameters on the control device, if required, in accordance with the manufacturer’s recommendations, or equal, and calibrate at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code]
3. Visible Emissions	(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code]	(1) The Compliance Demonstration requirements for chromium and particulate matter emissions, conditions under III.H.1.b. and III.H.2.b., are deemed sufficient to demonstrate compliance with the visible emission limit.	(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with the visible emissions limit, THEN: use U.S. EPA Method 9, OR: other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) The recordkeeping requirements for particulate matter emissions outlined in condition III.H.2.(c) also serve as recordkeeping requirements for visible emissions. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]
4. Volatile Organic Compounds	(1) Latest Available Control Techniques and Operating Practices Demonstrating Best Current Technology (LACT) determined to be the following: (a) the workpractice consisting of cleaning performed using ethanol or isopropyl alcohol which is applied to parts using squeegee bottles which are no larger than 1-liter in volume, and (b) no more than 21,480 1-liter squeegee bottles used per year,	(1) (a) The permittee shall calculate the number of 1-liter squeegee bottles used in one month, summed over a rolling 12 month period (b) The rolling 12 month total amount of 1-liter squeegee bottles used shall be calculated using the following equation: $E_{total} = \sum X_n$ where, $E_{total} =$ The rolling 12-month total amount of squeegee bottles used; $X_n =$ number of 1-liter squeegee bottles used in one month as calculated in condition III.H.4.b.(1)(a). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) MAINTAIN: on-site, a Material Safety Data Sheet (MSDS) or equivalent to document the VOC content of each cleanup solvent used [ss. NR 439.04(1) and 439.04(4), Wis. Adm. Code] (2) RECORD: (a) monthly number of squeegee bottles used by each chrome process line, and the volume of bottles. (b) the total number of squeegee bottles used each year (c) the rolling 12 month total of squeegee bottles used (d) the actual and monthly VOC emissions determined at the end of each calendar month according to III.H.4.b.(1).

III. H. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: Chromium Plating

The permittee shall meet all conditions at section G of Part I of this permit for each modification of P08, P14, or P27. P08, P14, P27, and any new chromium plating baths constitute Affected Sources under the federal MACT standard for Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks [40 CFR 63 Subpart N and NR 463, Wis. Adm. Code]. The following requirements apply to each new or reconstructed chromium plating line.

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
4. Volatile Organic Compounds (continued)	summed over a rolling 12 month period, or an equivalent combination of bottles of different volume which results in VOC emissions of no more than 18.9 tons per year, summed over a rolling 12 month period. [s. NR 424.03(2)(c), Wis. Adm. Code; s. 285.65(3) and s. 285.65(7), Wis. Stats.]	OR (2) Provide the Wisconsin DNR for review and approval how the facility will meet the 18.9 ton/yr, summed over a rolling 12 month period VOC emission limit. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	[s. NR 439.04(1)(d) and (3), Wis. Adm. Code]

III. I. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: R&D/Pilot/Development Projects

For all projects in this R&D section: within 12 months of startup of a research and testing activity approved in this section, the facility shall determine maximum theoretical emissions, potential emissions, and the potential applicable State and Federal compliance requirements relating to this potential process. On or before the end of this 12 month period, 3M will decide if the process is to be placed into production or will otherwise remain at this facility. If the facility chooses to keep the process at this facility, and if emissions exceed permitting thresholds as identified in ch. NR 406 and/or NR 407, Wis. Adm. Code, the facility shall apply for and receive either a new source construction permit and/or a modification of the Title V operating permit before production commences. If emissions are less than permitting thresholds and the project meets the exemptions identified in ch. NR 406, Wis. Adm. Code, the Wisconsin DNR shall issue a construction permit exemption. If 3M chooses not to proceed with placing the process in production, the process shall be removed from the facility or remain non-operational. If 12 months is insufficient to provide 3M an ability to install, test, and determine the fate of the potential process under this approval, 3M is prohibited to continue work on the process/project until such time as 3M applies for and receives a new source construction permit per ch. NR 406, Wis. Adm. Code, based on anticipated emissions from the process/project, for those projects above exemption levels identified in ch. NR 406.04(2), Wis. Adm. Code. [\[NR 406.04\(1\)\(i\) & NR 406.03, Wis. Adm. Code\]](#)

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Volatile Organic Compounds	<p>(1) LACT consists of:</p> <p>(a) actual VOC emissions ≤ 25 ton/yr, summed over a rolling 12 month period</p> <p>[s. NR 424.03(2)(c), Wis. Adm. Code, Environmental Cooperative Agreement between WI DNR and 3M of 10/2/2002 pursuant to s. 299.80, Wis. Stat., and s. 285.65(7), Wis. Stat.]</p>	<p>(1) DOCUMENT: calculations for determining VOC emissions</p> <p>(2) RECORD: for each month of operation:</p> <p>(a) amount (lbs) of each raw material used;</p> <p>(b) VOC emissions (lb/mo and ton/yr)</p> <p>[s. NR 439.04(d), Wis. Adm. Code]</p> <p>(3) RECORD: for each day, whether the emissions-generating portion of the process operated</p>	<p>(1) Reference Test Method: VOCs</p> <p>IF: emissions testing is requested by the Department for purposes of determining compliance with VOC emission limits, THEN: use US EPA Methods 18, 25, 25A or 25B, OR other methods as approved by the Department. [s. NR 439.06(3)(a), Wis. Adm. Code]</p>
2. Particulate Matter Emissions	<p>(1) The most restrictive of the applicable limit found in [s. NR 415.05(1), Wis. Adm. Code] AND</p> $E = 3.59 (P)^{0.62}$ <p>where, E is the emission limit in pounds per hour, and P is the process weight rate in tons per hour. [s. NR 415.05(2), Wis. Adm. Code]</p> <p>OR</p> <p>A more restrictive particulate matter emission limit determined by modeling. [s. 285.65(7), Wis. Adm. Code]</p>	<p>(1) If a control device is required for particulate matter emissions to meet the National Ambient Air Quality Standards (NAAQS), then the facility shall perform the associated monitoring required for that control device in accordance with the Wis. Adm. Code.</p>	<p>(1) REFERENCE TEST METHOD: PM</p> <p>IF: emissions testing is requested by the Department for purposes of determining compliance with the PM emissions limit, THEN: use 5, 5A, 5B, 5D, 5E, 5F, 5G, 5H or 17 including condensable backhalf emissions (U.S. EPA Method 202). [s. NR 439.06(1), Wis. Adm. Code.]</p> <p>(2) The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code]</p> <p>(3) RECORD: the appropriate operating data as necessary on the control device, if required, to satisfy requirements in the Wis. Adm. Code.</p>

III. I. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III.A: R&D/Pilot/Development Projects

For all projects in this R&D section: within 12 months of startup of a research and testing activity approved in this section, the facility shall determine maximum theoretical emissions, potential emissions, and the potential applicable State and Federal compliance requirements relating to this potential process. On or before the end of this 12 month period, 3M will decide if the process is to be placed into production or will otherwise remain at this facility. If the facility chooses to keep the process at this facility, and if emissions exceed permitting thresholds as identified in ch. NR 406 and/or NR 407, Wis. Adm. Code, the facility shall apply for and receive either a new source construction permit and/or a modification of the Title V operating permit before production commences. If emissions are less than permitting thresholds and the project meets the exemptions identified in ch. NR 406, Wis. Adm. Code, the Wisconsin DNR shall issue a construction permit exemption. If 3M chooses not to proceed with placing the process in production, the process shall be removed from the facility or remain non-operational. If 12 months is insufficient to provide 3M an ability to install, test, and determine the fate of the potential process under this approval, 3M is prohibited to continue work on the process/project until such time as 3M applies for and receives a new source construction permit per ch. NR 406, Wis. Adm. Code, based on anticipated emissions from the process/project, for those projects above exemption levels identified in ch. NR 406.04(2), Wis. Adm. Code. [\[NR 406.04\(1\)\(i\) & NR 406.03, Wis. Adm. Code\]](#)

Pollutant	a. Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
2. Particulate Matter Emissions (continued)	Stats.]		<p>(4) RECORD: each inspection, check, and any maintenance or repairs performed on the control device, if required, including the date and time of the action, initials of inspector, and the results. [ss. NR 439.04(1)(d), and NR 407.09(1)(c) Wis. Adm. Code]</p> <p>(5) MAINTAIN: the operating parameters on the control device, if required, in accordance with the manufacturer’s recommendations, or equal, and calibrate at least once per year. [s. NR 439.11(1)(b) and s. NR 439.055(4), Wis. Adm. Code]</p>
3. Visible Emissions	(1) 20% Opacity [s. NR 431.05, Wis. Adm. Code]	(1) The compliance demonstration requirement for particulate matter emissions, condition under III.I.2.b.(1) are deemed sufficient to demonstrate compliance with the visible emission limit.	<p>(1) REFERENCE TEST METHOD: Visible Emissions IF: emissions testing is requested by the Department for purposes of determining compliance with visible emission limits, THEN: use USEPA Method 9 in 40 CFR part 60, Appendix A, incorporated by reference in s. NR 484.04, Wis. Adm. Code, OR other methods as approved by the Department. [s. NR 439.06(9)(a)1., Wis. Adm. Code]</p> <p>(2) The recordkeeping requirements for particulate matter emissions outlined in condition III.I.2.c.(3) and (4) also serve as recordkeeping requirements for visible emissions. [s. NR 407.09(1)(c)1.a., Wis. Adm. Code]</p>

III. J. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III. A: Web Coating

On the basis of a regulatory streamlining analysis performed according to U.S. EPA White Paper #2, the emission standards of 40 CFR 63 subpart JJJJ and attendant reporting, recordkeeping, and monitoring requirements subsume requirements of the following:

- NR 424 Control of Organic Compound Emissions from Process Lines
- NR 422 Control of Organic Compound Emissions from Surface Coating, Printing, and Asphalt Surfacing Operations
- 40 CFR 60 sub RR Pressure Sensitive Tape and Label Surface Coating

Installation of one or more web coating lines at the 3M Menomonie plant constitutes "modification of an existing affected source" under 40 CFR 63 subpart JJJJ [the affected source being the collection of web coating lines], and as such is not subject to advance written approval under 40 CFR 63.5. Reconstruction of the 40 CFR 63 subpart JJJJ affected source at the 3M Menomonie plant is not authorized under Part III.A of this permit.

III. J. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III. A: Web Coating

These requirements apply, as applicable, to the entire collection of web coating lines upon the first instance of this section being invoked by a qualifying modification or installation of a web coating line. The requirements at section I.F.1 are at that time superseded by this section (Part III.J).

Pollutant	a. Emission Limitations	b. Compliance Demonstration
1. Volatile Organic Compounds (VOC) and Organic Hazardous Air Pollutant (OHAP) Emissions	<p>(1) The permittee shall comply with these requirements by the compliance date of December 5, 2005 as referenced at 40 CFR 63.3330(a). [40 CFR 63.3330(a), and s. 285.65(13), Wis. Stats.]</p> <p>(2) LIMIT: the web coating lines, as a collection of all web coating lines at the facility, shall limit VOC emissions to the level specified in (a), (b), (c), OR (d):</p> <p>(a) no more than 5 percent of the VOC applied for each month (95 percent reduction); OR</p> <p>(b) no more than 4 percent of the mass of coating materials applied for each month; OR</p> <p>(c) no more than 20 percent of the mass of coating solids applied for each month; OR</p> <p>(d) If the permittee uses an oxidizer to control VOC emissions, operate the oxidizer such that an outlet VOC concentration of no greater than 20 parts per million by volume (ppmv) is achieved and the efficiency of the</p>	<p>(1) Each month, the permittee shall demonstrate compliance with any one or more of the emissions standards options at 40 CFR 63.3320(b), using the applicable procedures at 40 CFR 63.3370 for the combination of always-controlled, intermittently-controlled, and never-controlled workstations of the affected source. [40 CFR 63.3370]</p> <p>(2) DETERMINE: "as-purchased" volatile organic content AND coating solids content of each coating material applied, as applicable for the emission limit(s) elected in III.J.1.a.(2) for that month HOW:</p> <ul style="list-style-type: none"> • by testing using EPA Method 24 [40 CFR part 60, Appendix A], according to 40 CFR 63.3360(d)(1), OR • by formulation data, according to 40 CFR 63.3360(d)(2), OR • by an alternative test method, approved by the Administrator at EPA in accordance with 40 CFR 63.7(f) <p>(3) DETERMINE: "as-applied" volatile organic content AND coating solids content of each coating material applied, as applicable for the emission limit(s) elected in III.J.1.a.(2) for that month HOW: using Equation 1b and 2, as applicable, according to 40 CFR 63.3370 [40 CFR 63.3360(d), and s. 285.65(13), Wis. Stats.]</p>

III. J. Applicable Requirements for Specific Projects/Facility Changes Authorized under Part III. A: Web Coating

These requirements apply, as applicable, to the entire collection of web coating lines upon the first instance of this section being invoked by a qualifying modification or installation of a web coating line. The requirements at section I.F.1 are at that time superseded by this section (Part III.J).

Pollutant	a. Emission Limitations	b. Compliance Demonstration
1. Volatile Organic Compounds (VOC) and Organic Hazardous Air Pollutant (OHAP) Emissions (continued)	capture system is 100 percent. [40 CFR 63.3320(b), and s. 285.65(13), Wis. Stats.] (3) The emissions standards apply at all times, EXCEPT: during startup, shutdown, and malfunction [40 CFR 63.6(f)(1)] (4) The permittee shall comply with the appropriate VOC limitations listed in NR 419 through NR 424 of the Wis. Adm. Code. [s. 285.65(7), Wis. Stats.]	

III. J. Air Pollution Control Device (APCD) Requirements for Web Coating Lines. **IF:** a thermal oxidizer or catalytic oxidizer is installed or otherwise used to meet the emission limits of 40 CFR 63 sub JJJJ, **THEN:** meet the following additional requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
(1) each work station of each web coating line which is intermittently controlled by an air pollution control device	PREVENT: unintentional bypass of the air pollution control device (APCD) by using any of the following: (a) auto-stop the web coating line of the work station when flow is diverted away from an operating APCD (b) car-seal or lock-and-key valve closure, secured in closed position (c) air flow position indicator (d) continuous monitoring of valve position when source is operating AND APCD is in use	40 CFR 63.3350(c)(4)
(2) each intermittently-controlled work station with bypass control provided by auto-stop the web coating line	INSPECT: the auto-stop system to verify that it will detect flow diversions and shut down operations WHEN: once per month	40 CFR 63.3350(c)(4)
(3) each intermittently-controlled work station with bypass control provided by car-seal or lock-and-key valve closure	INSPECT: the seal or closure mechanism to verify that the valve or damper is closed WHEN: once per month HOW: visual	40 CFR 63.3350(c)(2)

III. J. Air Pollution Control Device (APCD) Requirements for Web Coating Lines. **IF:** a thermal oxidizer or catalytic oxidizer is installed or otherwise used to meet the emission limits of 40 CFR 63 sub JJJJ, **THEN:** meet the following additional requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
(4) each intermittently-controlled work station with bypass control provided by an air flow position indicator	INSTALL, CALIBRATE, MAINTAIN, AND OPERATE: according to the manufacturer’s specifications LOCATE: at the entrance to each air pollution control device (APCD) bypass line RECORD: time, flow control position WHEN: <ul style="list-style-type: none"> • once per hour, AND • each occurrence of a change of flow direction 	40 CFR 63.3350(c)(1)
(5) each intermittently-controlled work station with bypass control provided by continuous monitoring of valve position	INSPECT: to verify that the monitor will indicate valve position WHEN: once per month	40 CFR 63.3350(c)(3)

III. J. Recordkeeping Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
each work station intermittently controlled by an APCD, DURING: each bypass of the APCD	RECORD: the mass of each coating material applied	40 CFR 63.3350(c)
each continuous parameter monitoring system (CPMS) used by each: <ul style="list-style-type: none"> • APCD • capture system • bypass control 	RECORD: each: <ul style="list-style-type: none"> • inspection • calibration • validation check 	40 CFR 63.3350(e)(5)
each APCD AND its monitoring equipment	RECORD: each instance of required maintenance	40 CFR 63.10(b)(2)(iii)
each APCD AND its monitoring equipment	RECORD: each occurrence and duration of each malfunction	40 CFR 63.10(b)(2)(ii)

III. J. Recordkeeping Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
each continuous monitoring system (CMS)	RECORD: <ul style="list-style-type: none"> • each calibration check • each adjustment and maintenance 	40 CFR 63.10(b)(2)(x)
each CMS	RECORD: the date and time of each instance of: <ul style="list-style-type: none"> • CMS inoperative, EXCEPT: zero (low-level) and high-level checks • CMS out-of-control [as defined at 40 CFR 63. 63.8(c)(7)] 	40 CFR 63.10(c)(5)
each CMS malfunction	RECORD: <ul style="list-style-type: none"> • the nature and cause (if known) • corrective action taken or preventive measures adopted • the nature of repairs or adjustments 	40 CFR 63.10(c)(10)
each web coating line connected to an APCD	RECORD: each occurrence and duration of each startup, shutdown, or malfunction	40 CFR 63.10(b)(2)(i)
each CMS	RECORD: the date and time of each instance of excess emissions and parameter monitoring exceedances during: <ul style="list-style-type: none"> • startups, shutdowns, and malfunctions • all other periods 	40 CFR 63.10(c)(7)
each web coating line with a CMS	RECORD: total process operating time during the reporting period	40 CFR 63.10(c)(13)
each occurrence of a startup, shutdown, OR malfunction	RECORD: as needed <ul style="list-style-type: none"> • to demonstrate that the response was consistent with the startup, shutdown, and malfunction (SSM) Plan, OR • why the response was NOT consistent with the SSM Plan 	40 CFR 63.6(e)(3)(iii)
IF: a startup, shutdown, OR malfunction occurs, AND: the SSM Plan inadequately addresses the event	REVISE: Startup, Shutdown, Malfunction (SSM) Plan DUE: within 45 day after the event IF: revision of the SSM Plan " <i>alters the scope of the activities at the source which are deemed to be a startup, shutdown, malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard</i> " THEN SUBMIT: a notification describing changes to permitting authority	40 CFR 63.6(e)(3)(viii)

III. J. Recordkeeping Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
each workstation of each web coating line	DETERMINE: OHAP mass fraction of each coating material "as-purchased" AND "as-applied" HOW: according to the methods at 40 CFR 63.3360(c)(1)-(4)	40 CFR 63.3360(c)
one or more workstations of one or more web coating lines, IF ELECT: VOC content as a surrogate for organic HAP	DETERMINE: for each coating material applied, "as-purchased" AND "as-applied" • VOC content [HOW: Method 24, OR formulation data], AND • coating solids content [HOW: Equation. 1b AND 2 of 40 CFR 63.3370]	40 CFR 63.3360(d)

III. J. Monitoring Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
each oxidizer, EXCEPT: catalytic oxidizers	MONITOR: temperature, in the combustion zone HOW: by continuous parameter monitoring system (CPMS) = temperature sensor located in the combust. zone, AND a continuous recorder ACCURACY: greater of: $\pm 1\%$ of true temperature ($^{\circ}\text{C}$) being monitored, OR $\pm 1^{\circ}\text{C}$	40 CFR 63.3350(e)(9)(ii)
each catalytic oxidizer	MONITOR: ΔT across the catalyst bed HOW: by CPMS = temperature sensor at inlet and outlet of the catalyst bed, AND continuous recorder ACCURACY: greater of: $\pm 1\%$ of true temperature ($^{\circ}\text{C}$) being monitored, OR $\pm 1^{\circ}\text{C}$	40 CFR 63.3350(e)(9)(iii)
each oxidizer	INSTALL, CALIBRATE, MAINTAIN, AND OPERATE: the CPMS according to the manufacturer's specs.	40 CFR 63.3350(e)(9)(i)
each oxidizer	VERIFY: the calibration of the chart recorder, data logger, AND temperature indicator, OR IF: equipment cannot be calibrated, THEN: replace WHEN: once every 3 months	40 CFR 63.3350(e)(9)(i)
capture system	MONITOR: capture system operating parameter WHEN: continuously, when any associated web coating line is operated HOW: according to the <i>Capture System Site-Specific Monitoring Plan</i>	40 CFR 63.3350(f)(3)

III. J. Monitoring Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
each CPMS used by each: <ul style="list-style-type: none"> • APCD • capture system 	<p>CPMS Data Collection</p> <p>FREQUENCY: ≥1 cycle of CPMS operation for each successive 15-min period</p> <p>FULFILLMENT: collect valid data for ≥ 90% of the hours of process operation [where: a valid hour of data ≥ 4 equally spaced successive CPMS cycles]</p>	40 CFR 63.3350(e)(1)
each CPMS used by each: <ul style="list-style-type: none"> • APCD • capture system 	<p>CPMS Data Reduction</p> <p>DETERMINE: each hour:</p> <ul style="list-style-type: none"> • hourly avg. of all CPMS recorded values, AND • rolling 3-hr average of all recorded readings for each operating period <p>HOW: according to 40 CFR 63.3350(e)(3) and (4), and (e)(7) [for data to exclude]</p>	40 CFR 63.3350(e)(3)
each CPMS used by each: <ul style="list-style-type: none"> • APCD • capture system • bypass control 	<p>MAINTAIN: parts for routine repair</p>	40 CFR 63.3350(e)(6)
each CPMS used by each: <ul style="list-style-type: none"> • APCD • capture system • bypass control 	<p>WHEN TO MONITOR: at all times that the unit is operating, EXCEPT: during:</p> <ul style="list-style-type: none"> • CPMS malfunction, OR • repair, OR • QA/QC (including calibration checks, zero and span adjust) 	40 CFR 63.3350(e)(7)

III. J. Reporting and Notification Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
the collection of web coating lines [the MACT JJJJ affected source]	<p>SUBMIT: Initial Notification</p> <p>DUE: 12/5/2004</p> <p>CONTENT: according to 40 CFR 63.9(b)(2)(i)-(v)</p> <p>OR, MAY ELECT: substitute Title V application IF ... [see 40 CFR 63.3400(b)(3)-(4)]</p>	40 CFR 63.3400(b)

III. J. Reporting and Notification Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
the collection of web coating lines [the MACT JJJJ affected source]	<p>SUBMIT: initial Semi-annual Compliance Report</p> <p>DUE: 1/31/2006 [for the reporting period: 12/5/2005 to 12/31/2005]</p> <p>OR, MAY ELECT: submit with the closest semi-annual Title V Periodic Monitoring Report</p> <p>CONTENT: according to 40 CFR 63.3400(c)(2)</p>	40 CFR 63.3400(c)
the collection of web coating lines [the MACT JJJJ affected source]	<p>SUBMIT: Semi-annual Compliance Report</p> <p>DUE: 7/31/x [for the reporting period: 1/1 to 6/30/x], AND 1/31/(x+1) [for 7/1 to 12/31/x]</p> <p>OR, MAY ELECT: submit with the closest semi-annual Title V Periodic Monitoring Report</p> <p>CONTENT: according to 40 CFR 63.3400(c)(2)</p>	40 CFR 63.3400(c)
the collection of web coating lines [the MACT JJJJ affected source], IF ELECTED	<p>MAY ELECT: with WI DNR approval, to adjust the due date of MACT JJJJ submittals, including:</p> <ul style="list-style-type: none"> • to be consistent with due dates under submittals of a Title V permit • to arrive at a single due date if the facility is subject to multiple MACTs, NSPSs, NESHAPs <p>HOW: according to 40 CFR 63.9(i), 10(a)(5), 10(a)(6), 10(a)(7)</p>	40 CFR 63.9(i)
any substantive change in any information previously submitted to WI DNR	<p>SUBMIT: changes within 15 days after the change</p>	40 CFR 63.9(j)
each performance test	<p>SUBMIT: Notification of Compliance Status</p> <p>DUE: within 60 days of completing the test</p> <p>CONTENT: according to 40 CFR 63.9(h)(2)(i)</p>	40 CFR 63.3400(e)
each occurrence of a startup, shutdown, OR malfunction, IF the response is NOT consistent with the SSM Plan, AND IF : an emission standard is exceeded	<p>RECORD: actions for that event</p> <p>NOTIFY: by telephone or fax: within 2 working days after commencing the actions that were inconsistent with the SSM Plan</p> <p>REPORT: by letter, within 7 working days of the end of event</p> <p>CONTENT: according to 40 CFR 63.10(d)(5)(ii)</p>	40 CFR 63.6(e)(3)(iv)
use an air pollution control device (APCD)	<p>SUBMIT: Start-up, Shutdown, Malfunction (SSM) Report</p> <p>HOW: per 40 CFR 63.10(d)(5)</p> <p>CONTENT: according to 40 CFR 63.10(d)(5)</p>	40 CFR 63.3400(g)

III. J. Reporting and Notification Requirements for Web Coating Lines. Meet the following requirements, as applicable.

Applies to:	a. Meet the following requirement	Citation
a startup, shutdown, or malfunction occurs, AND : the facility response is consistent with the SSM Plan	SUBMIT: SSM Report DUE: 1/30/x [reporting period = 6/1/(x-1) to 12/31/(x-1)] AND 7/30/x [reporting period = 1/1/x to 7/31/x] CONTENT: according to 40 CFR 63.10(d)(5)(i)	40 CFR 63.10(d)(5)(i)

III. J. Performance Testing Requirements for Web Coating Lines. The permittee shall conduct an initial performance test of each air pollution control device and capture system used to meet the emission standards of 40 CFR 63 subpart JJJJ, as follows and as applicable.

Applies to:	a. Meet the following requirement	Citation
each thermal oxidizer AND catalytic oxidizer	CONDUCT: Performance Test, including establish destruction or removal efficiency of the APCD DUE: within 180 days after start-up of the APCD HOW: according to the test methods, data reduction requirements, etc. of 40 CFR 63.3360(e)(1)(i)-(x) and (e)(2), 40 CFR 63.63.7(e)(1)-(4)	40 CFR 63.3360(e)(1)
each thermal oxidizer	ESTABLISH: operating parameter = T(average) at firebox or immediately downstream WHEN: during the initial performance test HOW: according to §63.3360(e)(3)(i)	40 CFR 63.3360(e)(3)(i)
each catalytic oxidizer	ESTABLISH: operating parameter ... MAY ELECT: either: <ul style="list-style-type: none"> • T(average) just before the catalyst bed, AND ΔT(average) across the bed, OR • T(average) just before the catalyst bed, AND a site-specific inspection/maintenance plan [CONTENT: according to 40 CFR 63.3360(e)(3)(ii)(E)(1) - (3)] WHEN: during initial performance test HOW: according to 40 CFR 63.3360(e)(3)(ii)	40 CFR 63.3360(e)(3)(ii)
each PTE (permanent total enclosure) capture system	DEMONSTRATE: compliance with the criteria of Method 204 in Section 6 of 40 CFR 51, Appendix M	40 CFR 63.3360(f)(1)

III. J. Performance Testing Requirements for Web Coating Lines. The permittee shall conduct an initial performance test of each air pollution control device and capture system used to meet the emission standards of 40 CFR 63 subpart JJJJ, as follows and as applicable.

Applies to:	a. Meet the following requirement	Citation
each capture system which is NOT a PTE	DETERMINE: capture efficiency HOW: <ul style="list-style-type: none"> • Method 204 and 204A-F [40 CFR 51 Appendix M], OR • other methods, as provided at 40 CFR 63.3360(f)(2), OR • other methods, as approved by WI DNR 	40 CFR 63.3360(f)(2)
each performance test	DEVELOP: a written, site-specific Test Plan SUBMIT: submit to WI DNR only if requested CONTENT: according to 40 CFR 63.7(c)(2)	40 CFR 63.7(c)(2)(i)
each performance test	SUBMIT: Notification of Performance Test DUE: 60 days prior to test CONTENT: according to 40 CFR 63.3400(d) [includes identification of the operating parameters of the capture system and APCD]	40 CFR 63.3400(d)
IF: a scheduled performance test cannot be performed	RESCHEDULE: according to 40 CFR 63.7(b)(2)	40 CFR 63.7(b)(2)
each performance test	REQUEST: performance audit (PA) samples from the EPA Regional Office OR from the responsible enforcement authority DUE: 30 days prior to the test ANALYZE: PA samples during the performance test, UNLESS: EPA/enforcement authority fails to provide the samples on time	40 CFR 63.7(c)(4)(i)
each performance test	SUBMIT: Performance test Report CONTENT: according to 40 CFR 63.10(d)(2) DUE: submit with the Notification of Compliance Status	40 CFR 63.3400(f)

III. J. Requirements for Written Plans and General Operating Requirements for Web Coating Lines. Meet the following requirements, as applicable

Applies to:	a. Meet the following requirement	Citation
-------------	-----------------------------------	----------

III. J. Requirements for Written Plans and General Operating Requirements for Web Coating Lines. Meet the following requirements, as applicable

Applies to:	a. Meet the following requirement	Citation
<p>APPLIES IF: use an air pollution control device (APCD)</p>	<p>DEVELOP, IMPLEMENT: Startup, Shutdown, and Malfunction Plan DUE: 12/5/2005 [MACT JJJJ compliance date] RETENTION: each superseded version for 5 years CONTENT: according to 40 CFR 63.10(d)(5)</p>	<p>40 CFR 63.6(e)(3)</p>
<p>each capture system of each APCD</p>	<p>DEVELOP: Capture System Site-Specific Monitoring Plan CONTENT: specify/identify:</p> <ul style="list-style-type: none"> • operation parameter and rationale • value or range needed to meet emissions standards • corresponding specific monitoring procedures <p>REVIEW: annually</p>	<p>40 CFR 63.3350(f)</p>
<p>each PTE (permanent total enclosure) capture system</p>	<p>MEET: Method 204, Sect. 6 [40 CFR 51, Appendix M], AND ROUTE: all exhaust gases from the enclosure to an APCD</p>	<p>40 CFR 63.3360(f)(1)</p>

III. K. CONDITIONS THAT APPLY TO ALL PROJECT/FACILITY CHANGES UNDER PART III.A.

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
<p>1. Criteria Pollutants: Carbon Monoxide, Oxides of Nitrogen, Particulate Matter, Sulfur Dioxide, Volatile Organic Compounds, Lead, or Lead Compounds</p>	<p>(1) The emissions for each criteria pollutant shall be limited to less than 100 tons per year for each process/facility change under Part III.A, except for R&D/Pilot/ Development Projects for which the emissions of each criteria pollutant shall be limited to less than 100 tons per year for the sum of all such R&D/Pilot/ Development Projects authorized under Part III.A.(4). The 100 tons per year limit on carbon monoxide, oxides of nitrogen, particulate matter, sulfur dioxide, volatile organic compounds, lead, or lead compounds, was established to avoid doing an environmental assessment under section NR 150.03(8)(b)1, Wis. Adm. Code and to ensure that the facility remains a minor source under PSD rules. [s. 285.65(7), Wis. Stats.]</p>	<p>(1) Emission factor data, information from Material Safety Data Sheets (MSDS), or any other information necessary shall be used to calculate criteria pollutant emissions. [s. NR 407.09(4)(a)1., Wis. Adm. Code]</p> <p>(2) For each project/facility change which is made under authorization of Part III, Section A of this permit, the permittee shall perform a monthly calculation for each criteria pollutant, as identified below, which could reasonably exceed the 100 tons per year criteria in III.K.1.a.(1). Procedures for performing these calculations, as applicable, are listed as follows:</p> <p>(a) Spray/Paint Booth Coating [authorized under Condition (1) of Part III, Section A of this permit]</p> <ul style="list-style-type: none"> • Volatile Organic Compounds: calculated each month according to the procedure stated in I.H.3.b.(3) and sum the monthly emissions to provide emissions on an annual basis in tons per year. • Particulate Matter: calculate each month by multiplying material throughput, or other suitable characteristic of the activity, by an appropriate emissions factor from AP-42 or as derived from engineering calculations and sum the monthly emissions to provide emissions on an annual basis in tons per year. Alternatively, the permittee may assume that monthly emissions are less than or equal to the emission limit in I.H.1.a.(1). <p>(b) Ceramic Fiber Making. [authorized under Condition (2) of Part III, Section A of this permit]</p> <ul style="list-style-type: none"> • Volatile Organic Compounds: calculate each month according to the procedure stated in I.I.2.b.(1) and sum the monthly emissions to provide emissions on an annual basis in tons per year. <p>(c) Chromium Plating. [authorized under Condition (3)]</p>	<p>(1) The following monthly records shall be compiled by the following month:</p> <p>(a) emission factor data, information from Material Safety Data Sheets (MSDS), or any other information used to calculate emissions and</p> <p>(b) the calculation of each criteria pollutant emitted from each process/facility change under Part III.A. in tons per year. [ss. NR 439.04 and NR 407.09(4)(a)1., Wis. Adm. Code]</p>

III. K. CONDITIONS THAT APPLY TO ALL PROJECT/FACILITY CHANGES UNDER PART III.A.

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Criteria Pollutants: Carbon Monoxide, Oxides of Nitrogen, Particulate Matter, Sulfur Dioxide, Volatile Organic Compounds, Lead, or Lead Compounds (continued)		<p>of Part III, Section A of this permit] No monthly calculations-no criteria pollutant emissions could reasonably exceed 100 tons per year.</p> <ul style="list-style-type: none"> • Volatile Organic Compounds: calculate each month according to III.H.4.b.(1) and (2) and sum the monthly emissions to provide emissions on an annual basis in tons per year. <p>(d) R&D/Pilot/Development Projects. [authorized under Condition (4) of Part III, Section A of this permit]</p> <ul style="list-style-type: none"> • Volatile Organic Compounds: calculate each month according to the procedure stated in III.I.1.b. and sum the monthly emissions to provide emissions on an annual basis in tons per year. • Particulate Matter (PM): calculate each month by multiplying material throughput, or other suitable characteristic of the activity, by an appropriate emissions factor from AP-42 or as derived from engineering calculations and sum the monthly emissions to provide emissions on an annual basis in tons per year. Alternatively, the permittee may assume that monthly emissions are less than or equal to the emission limit on particulate matter as stated in III.I.2.a.(1). <p>(e) Web Coating. [authorized under Condition (5) of Part III, Section A of this permit]</p> <ul style="list-style-type: none"> • Volatile Organic Compounds: calculate each month by multiplying the VOC content (%) of each coating used in the month by the mass of the coating used, consistent with applicable equations that are referenced in III.J.1.b. and sum the monthly emissions to provide emissions on an annual basis in tons per year. <p>[NOTE: Criteria pollutants which are listed above for each project are those which could reasonably exceed the criteria of 100 tons per year. Assurance that none of the other criteria pollutants for that project will exceed 100 tons per year is provided by the underlying nature of the</p>	

III. K. CONDITIONS THAT APPLY TO ALL PROJECT/FACILITY CHANGES UNDER PART III.A.

Pollutant	a. Emission Limitations	b. Compliance Demonstration	c. Reference Test Methods, Recordkeeping and Monitoring Requirements
1. Criteria Pollutants: Carbon Monoxide, Oxides of Nitrogen, Particulate Matter, Sulfur Dioxide, Volatile Organic Compounds, Lead, or Lead Compounds (continued)		project or facility change. There are either no emissions of these other criteria pollutants, or the emissions are nominal in comparison with the 100 tons per year limit. [accordingly, no emission limits for these substances have been established for the existing, similar plant operations at Part I] [s. NR 407.09(4)(a)1., Wis. Adm. Code]	

Appendix A

3M Menomonie: Streamlining Analysis of Coating Rules

3M Menomonie: Streamlining Analysis of Coating Rules

Note: terms defined below are highlighted in *blue italic* font

	MACT JJJJ Paper and Other Web Coating	NSPS RR Pressure Sensitive Tape And Label Surface Coating.	WI: NR 424 Control of Org. Compound Emissions from Process Lines	WI: NR 422 Control of Org. Compound Emissions from Surface Coating, Printing, and Asphalt Surfacing Operations.
Applies to:	CAA §112 major sources of HAP emissions with 1 or more <i>web coating line</i> [<i>Cit. §63.3320</i>]	Each <i>coating line</i> to manufacture <i>pressure sensitive tape and label materials</i> ; AND which commences construction, modification, or reconstruction after 12/30/80 [<i>Cit. §60.440(a)</i>]	All <i>process lines</i> which are direct air contaminant sources, AND modification commenced on or after August 1, 1979, AND which are not subject to emission limitations listed elsewhere in chs. NR 419 to 423 [<i>NR 424.01(1), Wis. Adm. Code</i>]	Roll, knife, or rotogravure coater(s) and drying ovens of fabric and vinyl coating lines [<i>Cit. §335-3-6-.3(7)(b)</i>]
How the rule applies:	[Affected Source] the collection of all web coating lines, including web coating lines for <ul style="list-style-type: none"> coating metal webs used in flexible packaging coating fabric substrates for use in pressure <i>sensitive tape</i> and abrasive materials [1] [<i>Cit. §63.3310</i>]	[Affected Facility] Each qualifying coating line [<i>Cit. §60.440(a)</i>]		Each qualifying coater/drying oven combination

Notes:

[1]	An Affected Source is a: <ul style="list-style-type: none"> <i>New affected source</i>, IF: construction or reconstruction commenced after 9/13/2000 <i>Existing affected source</i>, IF: construction or reconstruction commenced on or before 9/13/2000, and has not undergone reconstruction as defined in 40 CFR 63.2
-----	---

	MACT JJJJ Paper and Other Web Coating	NSPS RR Pressure Sensitive Tape, etc.	WI: NR 424 VOCs from Process Lines, etc.	WI: NR 422 VOCs from Surface Coat., etc.
Exempt:	<p>Exempt From the Rule</p> <p>Web coating lines defined as research or laboratory equipment</p> <p>IF: the owner elects to include in the MACT KK [Printing & Publishing] affected source:</p> <ul style="list-style-type: none"> stand-alone coating. equipment subject to MACT KK, AND/OR product and packaging rotogravure or wide-web flexographic press subject to MACT KK <p>Lithography, screenprinting, letterpress, and narrow-web flexographic printing processes</p> <p>Web coating lines subject to MACT EE</p> <p>Web coating lines subject to future MACTs for:</p> <ul style="list-style-type: none"> surface coating of <i>metal coil</i> printing, coating, and dyeing of <i>fabric</i> and other textiles, including: any web ctg. line that coats both a paper or other web substrate and a fabric or other textile substrate, EXCEPT: a fabric substrate used for <i>pressure sensitive tape</i> and abrasive materials 	<p>Exempt From the Rule: NA</p> <p>Exempt From Most Requirements</p> <p>IF: an affected facility with VOC <u>input</u> to the coating process \leq 45 Mg (49.6 tons) per 12 month period</p> <p>THEN: exempt from emission standards at §60.442(b) [and effectively exempt from most of the rest of the rule]</p> <p>[<i>Cit. §60.440(b)</i>]</p>	<p>Exempt From the Rule: NA</p>	<p>Exempt From the Rule: NA</p>

	MACT JJJJ Paper and Other Web Coating	NSPS RR Pressure Sensitive Tape, etc.	WI: NR 424 VOCs from Process Lines, etc.	WI: NR 422 VOCs from Surface Coat., etc.
	[<i>Cit.</i> §63.3330]			
Standards:	<p>Organic HAP emissions from Existing Affected Sources [New Affected Sources], not to exceed:</p> <ul style="list-style-type: none"> •5% [$\leq 2\%$] of organic-HAP applied, each month, OR •4% [$\leq 1.6\%$] of mass of coating materials applied, for each month, OR •20% [$\leq 8\%$] mass of coating solids applied, for each month, OR •IF: controlled by an oxidizer, THEN: outlet organic-HAP ≤ 20 ppmv by compound, dry basis, AND capture efficiency = 100% <p>[<i>Cit.</i> §63.3320(b)]</p> <p>OR: calculated equivalent allowable organic HAP emission rate [<i>Cit.</i> §63.3320(b)]</p>	<p>VOC emissions, from each Affected Facility, not to exceed:</p> <ul style="list-style-type: none"> • 0.20 kg VOC/kg of coating solids applied, weighted avg., each calendar month; OR • 90% overall VOC control, calculated over a calendar month; OR • % overall VOC emission reduction per §60.443(b), calculated over a calendar month <p>[<i>Cit.</i> §60.442(a)]</p>	<p>CONTROL: VOC emissions by at least 85% [<i>s.</i> NR 424(2)(b), Wis. Adm. Code]</p> <p>IF: 85% control has been demonstrated to be technologically infeasible for a specific process line, THEN: use the latest available control techniques and operating practices demonstrating best current technology, as approved by the department [<i>s.</i> NR 424(2)(c), Wis. Adm. Code]</p> <p>IF: a surface coating OR printing process, THEN: may elect to meet all of the following:</p> <ul style="list-style-type: none"> • the emission limitations of ss. NR 422.01 to 422.155, notwithstanding ss. NR 422.03 (1), (2), (3), (4) or (4m) and 425.03, AND • meets the relevant applicability requirements of ss. NR 422.05 to 422.155, AND • submit a written request to the department 	<p>VOC emissions, from each fabric coater, not to exceed: 0.35 kg VOC/L ctg, (2.9 lb/gal), excluding water, delivered to the coating applicator</p> <p>VOC emissions, from each vinyl coater, not to exceed: 0.45 kg/L coating. (3.8 lb/gal), excluding water, delivered to the coating applicator</p> <p>[<i>Cit.</i> §335-3-6-.3(7)(c)]</p>

	MACT JJJJ Paper and Other Web Coating	NSPS RR Pressure Sensitive Tape, etc.	WI: NR 424 VOCs from Process Lines, etc.	WI: NR 422 VOCs from Surface Coat., etc.
Key Definitions:	<p>Web coating line = any number of <i>work stations</i>, of which one or more <i>applies</i> a continuous layer of <i>coating material</i> across the entire width or any portion of the width of a <i>web</i> substrate, and any associated curing/drying equipment between an <i>unwind or feed station</i> and a <i>rewind or cutting station</i>.</p> <p>Fabric = any woven, knitted, plaited, braided, felted, or non-woven material made of filaments, fibers, or yarns including thread. This term includes material made of fiberglass, natural fibers, synthetic fibers, or composite materials.</p> <p>Metal coil = a continuous metal strip that is at least 0.15 millimeter (0.006 inch) thick which is packaged in a roll or coil prior to coating. After coating, it may or may not be rewound into a roll or coil. Metal coil does not include metal webs that are coated for use in flexible packaging.</p> <p>Pressure sensitive tape = a flexible backing material with a pressure-sensitive adhesive coating on one or both sides of the backing. Examples include, but are not limited to, duct/duct insulation tape and medical tape.</p> <p>Research or laboratory equipment = any equipment for which the primary purpose is to conduct research and development into new processes and products where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce except in a de minimis manner.</p> <p>Flexible packaging = any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, labels, liners and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.</p>	<p>Coating line = any number or combination of adhesive, release, or precoat coating applicators, flashoff areas, and ovens which coat a continuous web, located between a web unwind station and a web rewind station, to produce pressure sensitive tape and label materials.</p> <p>Coating applicator = an apparatus used to apply a surface coating to a continuous web.</p> <p>Flashoff area = the portion of a coating line after the coating applicator and usually before the oven entrance.</p> <p>Hood or enclosure = any device used to capture fugitive volatile organic compounds.</p> <p>Oven = a chamber which uses heat or irradiation to bake, cure, polymerize, or dry a surface coating.</p> <p>Precoat = a coating operation in which a coating other than an adhesive or release is applied to a surface during the production of a pressure sensitive tape or label product.</p>	<p>“Process line” means one or more actions or unit operations which must function simultaneously or in sequence in order to manufacture or modify a product.</p> <p>[Cit. 335 3 6 .3(6)(a)]</p>	<p>Fabric Coating = the coating of a textile substrate with a knife, roll, or rotogravure coater to impart properties that are not initially present, such as strength, stability, water or acid repellancy, or appearance.</p> <p>Knife Coating = the application of a coating material to a substrate by means of drawing the substrate beneath a knife that spreads the coating evenly over the full width of the substrate.</p> <p>Roll Coating = the application of a coating material to a substrate by means of hard rubber or steel rolls.</p> <p>Rotogravure Coating = the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substrate.</p> <p>5. “Vinyl Coating” shall mean to apply a decorative or protective topcoat or printing on vinyl coated fabric or vinyl sheets.</p> <p>335 3 6 .3(7)(a)</p>

	MACT JJJJ Paper and Other Web Coating	NSPS RR Pressure Sensitive Tape, etc.	WI: NR 424 VOCs from Process Lines, etc.	WI: NR 422 VOCs from Surface Coat., etc.
	<p>Applied = for the purposes of this subpart, the amount of organic HAP, coating material, or coating solids (as appropriate for the emission standards in Sec. 63.3320(b)) used by the affected source during the compliance period.</p> <p>Coating material(s) = all inks, varnishes, adhesives, primers, solvents, reducers, and other coating materials applied to a substrate via a web coating line. Materials used to form a substrate are not considered coating materials.</p> <p>Rewind or cutting station = a unit from which substrate is collected at the outlet of a web coating line.</p> <p>Unwind or feed station = a unit from which substrate is fed to a web coating line.</p> <p>Web = a continuous substrate (e.g., paper, film, foil) which is flexible enough to be wound or unwound as rolls.</p> <p>Work station = a unit on a web coating line where coating material is deposited onto a web substrate.</p> <p>[Source: 63.3310]</p>			