

SOURCE DESCRIPTION

Special Note: The permittee has elected to enter into a Cooperative Agreement with the Department under the Environmental Cooperation Pilot Program authorized by s. 299.80, Wis. Stats. The aim of this pilot program is to evaluate innovative environmental regulatory methods while providing the same level of protection of public health and the environment as provided under current applicable state and federal requirements. A Cooperative Agreement provides an opportunity for greater flexibility and reduced paperwork and administrative tasks and encourages sources to reduce pollution to levels below those required by state and federal requirements. Section 299.80, Wis. Stats. encourages public participation through an interested persons group. The greater flexibility afforded by the Cooperative Agreement allows variances from requirements under chs. 280 to 295, Wis. Stats. and the Administrative Codes promulgated under those chapters provided the variance results in a measurable reduction in overall levels of pollution and contains pollution limits that are verifiable, enforceable, and at least as stringent as pollution limits under chs. 280 to 295, Wis. Stats. and the rules promulgated under those chapters. Additionally the variance must either promote the reduction in overall levels of pollution to below the levels required under chs. 280 to 295, Wis. Stats. or provide for alternative monitoring, testing, record keeping, notification or reporting requirements that reduce the administrative burden on state agencies or the participant and that provide the information needed to ensure compliance with the Cooperative Agreement and the provisions of chs. 280 to 295, Wis. Stats. and rules promulgated under those chapters for which the Cooperative Agreement does not grant a variance. Any Cooperative Agreement entered into by the Department would have a term of five years with the possibility of a renewal for up to five additionally years. The Cooperative Agreement between Northern Engraving Corporation and the Department and supporting background information is contained in separate documents that are available for public review. This preliminary determination to issue Northern Engraving Corporation an operation permit for their West Salem facility highlights the proposed variances from air pollution control provisions of ch. 285, Wis. Stats, ss. NR 400 to 499, Wis. Adm. Code, and requirements contained in air pollution control permits currently held by the company.

SIGNIFICANT EMISSIONS UNITS

1. STACK INFORMATION

Stack Identification Number:	S10
Exhausting Unit(s):	B20 and B21
This stack has an actual exhaust point:	Yes
Discharge height above ground level (ft):	26.0
Inside dimensions at outlet (ft):	Circular - 2.40
Exhaust flow rate (Normal) (ACFM):	20000
Exhaust gas temperature (Normal) (°F):	70
Exhaust gas discharge direction:	Up
Stack equipped with any obstruction:	Yes

A. Emission Unit Information

Boiler/furnace number:	B20
Unit description:	TWO EACH 10.5 mmBTU/HR (21 mmBTU/HR COMBINED) STEAM BOILERS FIRING NATURAL GAS OR LIQUID PETROLEUM
Control technology status:	uncontrolled
Maximum continuous rating (mmBTU/hr):	21.0
Date of construction or last modification:	AUGUST 1977
Construction Permit Requirements:	Covered by elective operation permit EOP-10-KJC-32-082A.

	Primary Fuel	Backup Fuel #1
Fuel Name	Natural Gas	Liquid Petroleum
Higher Heating Value	1000 mmBtu/cf6	94,000 Btu/gal
Maximum Sulfur Content (weight %)	0	0

Maximum Ash Content (weight %)	0	0
Maximum hourly consumption	0.021 cf6	0.22 gal3

B. Emission Unit Information

Boiler/furnace number: B21
Unit description: TWO EACH 10.5 mmBTU/HR (21 mmBTU/HR COMBINED) STEAM BOILERS FIRING NATURAL GAS OR LIQUID PETROLEUM
Control technology status: uncontrolled
Maximum continuous rating (mmBTU/hr): 21.0
Date of construction or last modification: AUGUST 1977
Construction Permit Requirements: Covered by elective operation permit EOP-10-KJC-32-082A.

	Primary Fuel	Backup Fuel #1
Fuel Name	Natural Gas	Liquid Petroleum
Higher Heating Value	1000 mmBtu/cf6	94,000 Btu/gal
Maximum Sulfur Content (weight %)	0	0
Maximum Ash Content (weight %)	0	0
Maximum hourly consumption	0.021 cf6	0.22 gal3

2. STACK INFORMATION

Stack Identification Number: S15
Exhausting Unit(s): P70
This stack has an actual exhaust point: No

A. Emission Unit Information

Process number: P70
Unit description: SIXTEEN PAD PRINTERS, IDENTIFIED AS PPP-WS-44 THROUGH PPP-WS-47, PPP-WS-69 THROUGH PPP-WS-71, PPP-WS-98 THROUGH 102, PPP-WS-118, PPP-WS-119, PPP-WS-120, AND PPP-WS-121
Control technology status: uncontrolled
Operation type: PAD PRINTING
Date of construction or last modification: 1989-1994
Construction Permit Requirements: Printers PPP-WS-44 through PPP-WS-47 are covered by construction permit 89-IRS-041 and alteration 89-IRS-041A. Printers PPP-WS-69 through PPP-WS-71 are covered by construction permit 91-DCF-099. Printers PPP-WS-98 through PPP-WS-102 are covered by construction permit 92-IRS-110. Printers PPP-WS-118 through PPP-WS-121 are covered by construction permit 93-POY-092 and alteration 93-POY-092A.
Oven curing: No

3. STACK INFORMATION

Stack Identification Number: S16
Exhausting Unit(s): P76
This stack has an actual exhaust point: Yes
Discharge height above ground level (ft): 26
Inside dimensions at outlet (ft): Circular - 2.00
Exhaust flow rate (Normal) (ACFM): 8000
Exhaust gas temperature (Normal) (°F): 160
Exhaust gas discharge direction: Up
Stack equipped with any obstruction: No

A. Emission Unit Information			Unit description:
Process number:		P76	
Control technology status:		uncontrolled	
Application technique:		ROLL COATING	
Transfer efficiency (%)		100.00	
Date of construction or last modification:		1998	
Construction Permit Requirements:		Covered by construction permit 98-JCH-176	
Oven curing:		one natural gas/propane oven rated at 2.25 mmBtu/hr	

4. STACK INFORMATION

Stack Identification Number:	S17
Exhausting Unit(s):	P77
This stack has an actual exhaust point:	No

A. Emission Unit Information

Process number:	P77
Unit description:	FUGITIVE SOLVENT CLEAN-UP OPERATIONS
Control technology status:	uncontrolled
Date of construction or last modification:	ONGOING
Construction Permit Requirements:	Clean-up operations are covered by the construction permits issued for the various process with which it is associated.

5. STACK INFORMATION

Stack Identification Number:	S18
Exhausting Unit(s):	P18
This stack has an actual exhaust point:	Yes
Discharge height above ground level (ft):	23
Inside dimensions at outlet (ft):	3.2
Exhaust flow rate (Normal) (ACFM):	10,000
Exhaust gas temperature (Normal) (°F):	180
Exhaust gas discharge direction:	up
Stack equipped with any obstruction:	no

A. Emission Unit Information

Process number:	P18
Unit description:	Five lithographic presses with five UV curing ovens, identified as PLO-WS-18, PLO-WS-19, PLO-WS-20, PLO-WS-21, and PLO-WS-22
Control technology status:	uncontrolled
Application technique:	lithographic printing
Transfer efficiency (%)	100
Date of construction or last modification:	2 in 1990, 2 in 1996, and 1 in 1997
Construction Permit Requirements:	Because the maximum theoretical VOC emissions from each press are less than 5.7 pounds per hour, each press would have been exempt from construction permit requirements pursuant to s. NR 406.04(2), Wis. Adm. Code.
Oven curing:	Each press has an associated UV curing oven which is powered with electricity.

6. STACK INFORMATION

Stack Identification Number:	S28
Exhausting Unit(s):	P28
This stack has an actual exhaust point:	Yes
Discharge height above ground level (ft):	26
Inside dimensions at outlet (ft):	1.5
Exhaust flow rate (Normal) (ACFM):	6000
Exhaust gas temperature (Normal) (°F):	70
Exhaust gas discharge direction:	up

Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P28
Unit description: Two screening machines with a natural gas/LP fired drying oven
Control technology status: uncontrolled
Application technique: screen printing
Transfer efficiency (%): 100%
Date of construction or last modification: 1997
Construction Permit Requirements: Covered by construction permit 97-MWH-113
Oven curing: one natural gas/propane drying oven rated at 3.5 mmBtu/hr

7. STACK INFORMATION

Stack Identification Number: S29
Exhausting Unit(s): P29 and P149
This stack has an actual exhaust point: Yes
Discharge height above ground level (ft): 28
Inside dimensions at outlet (ft): 3.0
Exhaust flow rate (Normal) (ACFM): 9600
Exhaust gas temperature (Normal) (°F): 70
Exhaust gas discharge direction: up
Stack equipped with any obstruction: yes

A. Emission Unit Information

Process number: P29
Unit description: Two roll coaters with a natural gas or LP fired drying oven.
Control technology status: Controlled
Application technique: roll coating
Transfer efficiency (%): 100%
Date of construction or last modification: 1997
Construction Permit Requirements: Covered by construction permit 97-MWH-013
Oven curing: Natural Gas/Propane Oven Rated at 4.75 mmBtu/hr

Control device associated with this emissions unit
Emission unit controlled: P29
Control device number: C29
Date of installation: 1995
Description of device: Thermal Incinerator

Pollutant(s) controlled	Efficiency (%)
Volatile Organic Compounds	86%

B. Emission Unit Information

Process number: P149
Unit description: One roll coater with one existing oven (associated with P29) installed under construction permit exemption NR 406(1)(g).
Control technology status: uncontrolled
Application technique: roll coating
Transfer efficiency (%): 100%
Date of construction or last modification: 2002
Construction Permit Requirements: Exempt from construction permit requirements pursuant to s. NR 406.04(1)(g), Wis. Adm. Code.
Oven curing: This process uses the same natural gas/propane oven rated at 4.75 mmBtu/hr as used by P29.

8. STACK INFORMATION

Stack Identification Number: S37
 Exhausting Unit(s): P37
 This stack has an actual exhaust point: Yes
 Discharge height above ground level (ft): 26
 Inside dimensions at outlet (ft): 1.4
 Exhaust flow rate (Normal) (ACFM): 7500
 Exhaust gas temperature (Normal) (°F): 70
 Exhaust gas discharge direction: up
 Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P37
 Unit description: Two roll coaters with a natural gas or LP fired drying oven.
 Control technology status: Controlled
 Application technique: Roll Coating
 Transfer efficiency (%): 100%
 Date of construction or last modification: 1998
 Construction Permit Requirements: Covered by construction permit 98-RV-011
 Oven curing: One natural gas/propane oven rated at 4.5 mmBtu/hr

Control device associated with this emissions unit
 Emission unit controlled: P37
 Control device number: C37
 Date of installation: 1998
 Description of device: Thermal Incinerator

Pollutant(s) controlled	Efficiency (%)
Volatile Organic Compounds	80.1

9. STACK INFORMATION

Stack Identification Number: S38
 Exhausting Unit(s): P38
 This stack has an actual exhaust point: Yes
 Discharge height above ground level (ft): 25
 Inside dimensions at outlet (ft): 2.6
 Exhaust flow rate (Normal) (ACFM): 4500
 Exhaust gas temperature (Normal) (°F): 160
 Exhaust gas discharge direction: up
 Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P38
 Unit description: Two screening machines (using the drying oven associated with P28)
 Control technology status: uncontrolled
 Application technique: screen printing
 Transfer efficiency (%): 100%
 Date of construction or last modification: 1998
 Construction Permit Requirements: Covered by construction permit 98-JCH-176
 Oven curing: uses the drying oven associated with P28

10. STACK INFORMATION

Stack Identification Number: S56
 Exhausting Unit(s): P56
 This stack has an actual exhaust point: Yes
 Discharge height above ground level (ft): 22
 Inside dimensions at outlet (ft): circular - 2.2
 Exhaust flow rate (Normal) (ACFM): 10,500
 Exhaust gas temperature (Normal) (°F): 80
 Exhaust gas discharge direction: up
 Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P56
 Unit description: Two spraybooths identified as PSB-WS-56 and PSB-WS-58 with a natural gas or LP fired drying oven identified as SDO-WS-50 (formerly referred to as S48, P48)
 Control technology status: Controlled
 Application technique: Air atomization
 Transfer efficiency (%): 50%
 Date of construction or last modification: 2002
 Construction Permit Requirements: Covered by construction permit 02-MEC-617 issued on July 15, 2002.
 Oven curing: yes

Control device associated with this emissions unit
 Emission unit controlled: P56
 Control device number: C56
 Date of installation:
 Description of device: SPRAY BOOTH REPLACEABLE PARTICULATE OVERSPRAY FILTERS

Pollutant(s) controlled	Efficiency (%)
Particulate matter emissions	95.0

11. STACK INFORMATION

Stack Identification Number: S108
 Exhausting Unit(s): P108
 This stack has an actual exhaust point: Yes
 Discharge height above ground level (ft): 26.0
 Inside dimensions at outlet (ft): Circular - 4.30
 Exhaust flow rate (Normal) (ACFM): 34000
 Exhaust gas temperature (Normal) (°F): 75
 Exhaust gas discharge direction: Up
 Stack equipped with any obstruction: No

A. Emission Unit Information

Process number: P108
 Unit description: FOUR SPRAY BOOTHS, IDENTIFIED AS PSB-WS-108, PSB-WS-109, PSB-WS-110, and PSB-WS-111, USING NATURAL GAS/PROPANE DRYING OVEN SDO-WS-112 AND ELECTRIC DRYING OVEN SDO-WS-117
 Control technology status: Controlled
 Application technique: AIR ATOMIZATION
 Transfer efficiency (%): 50.00
 Date of construction or last modification: 1994
 Construction Permit Requirements: This process is covered by construction permit 93-POY-092 issued on December 3, 1993 and construction permit alteration 93-POY-092A issued February 8, 1996.

Oven curing: yes - one electric oven and one natural gas/propane oven rated at 1.2 mmBtu per hour

Control device associated with this emissions unit

Emission unit controlled: P108
Control device number: C108
Date of installation: 1994
Description of device: SPRAY BOOTH REPLACEABLE PARTICULATE OVERSPRAY FILTERS

Pollutant(s) controlled	Efficiency (%)
Particulate matter emissions	95.0

12. STACK INFORMATION

Stack Identification Number: S113
Exhausting Unit(s): P113
This stack has an actual exhaust point: Yes
Discharge height above ground level (ft): 26.0
Inside dimensions at outlet (ft): Circular - 4.30
Exhaust flow rate (Normal) (ACFM): 34000
Exhaust gas temperature (Normal) (°F): 75
Exhaust gas discharge direction: Up
Stack equipped with any obstruction: No

A. Emission Unit Information

Process number: P113
Unit description: FOUR SPRAY BOOTHS, IDENTIFIED AS PSB-WS-113, PSB-WS-114, PSB-WS-115, and PSB-WS-116, USING DRYING OVEN SDO-WS-117
Control technology status: Controlled
Application technique: AIR ATOMIZATION
Transfer efficiency (%): 50.00
Date of construction or last modification: 1/1/94
Construction Permit Requirements: This process is covered by construction permit 93-POY-092 issued on December 3, 1993 and construction permit alteration 93-POY-092A issued February 8, 1996.
Oven curing: yes - one natural gas/propane oven rated at 1.2 mmBtu per hour

Control device associated with this emissions unit

Emission unit controlled: P113
Control device number: C113
Date of installation: 1/1/94
Description of device: SPRAY BOOTH REPLACEABLE PARTICULATE OVERSPRAY FILTERS

Pollutant(s) controlled	Efficiency (%)
Particulate matter emissions	95.0

13. STACK INFORMATION

Stack Identification Number: S134
Exhausting Unit(s): P134
This stack has an actual exhaust point: Yes
Discharge height above ground level (ft): 26
Inside dimensions at outlet (ft): circular - 3.0
Exhaust flow rate (Normal) (ACFM): 9000
Exhaust gas temperature (Normal) (°F): 80

Exhaust gas discharge direction: up
 Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P134
 Unit description: Four spraybooths: PSB-WS-134, PSB-WS-135, PSB-WS-136, and PSB-WS-137 with drying oven SDO-WS-138 (electric)
 Control technology status: Controlled
 Application technique: Air atomization
 Transfer efficiency (%): 50%
 Date of construction or last modification: 2002
 Construction Permit Requirements: Covered by construction permit 02-MEC-617 issued on July 15, 2002.
 Oven curing: yes

Control device associated with this emissions unit
 Emission unit controlled: P134
 Control device number: C134
 Date of installation:
 Description of device: SPRAY BOOTH REPLACEABLE PARTICULATE OVERSPRAY FILTERS

Pollutant(s) controlled	Efficiency (%)
Particulate matter emissions	95.0

14. STACK INFORMATION

Stack Identification Number: S139
 Exhausting Unit(s): P139
 This stack has an actual exhaust point: Yes
 Discharge height above ground level (ft): 26
 Inside dimensions at outlet (ft): circular - 3.1
 Exhaust flow rate (Normal) (ACFM): 10,000
 Exhaust gas temperature (Normal) (°F): 80
 Exhaust gas discharge direction: up
 Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P139
 Unit description: Four spraybooths: PSB-WS-139, PSB-WS-140, PSB-WS-141, and PSB-WS-142 with two drying ovens: SDO-WS-143 and SDO-WS-144 (electric)
 Control technology status: Controlled
 Application technique: Air atomization
 Transfer efficiency (%): 50%
 Date of construction or last modification: 2002
 Construction Permit Requirements: Covered by construction permit 02-MEC-617 issued on July 15, 2002.
 Oven curing: yes

Control device associated with this emissions unit
 Emission unit controlled: P139
 Control device number: C139
 Date of installation:
 Description of device: SPRAY BOOTH REPLACEABLE PARTICULATE OVERSPRAY FILTERS

Pollutant(s) controlled	Efficiency (%)

Particulate matter emissions	95.0
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15. STACK INFORMATION

Stack Identification Number: S145
 Exhausting Unit(s): P145
 This stack has an actual exhaust point: Yes
 Discharge height above ground level (ft): 26
 Inside dimensions at outlet (ft): circular - 2.7
 Exhaust flow rate (Normal) (ACFM): 12,000
 Exhaust gas temperature (Normal) (°F): 80
 Exhaust gas discharge direction: up
 Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P145
 Unit description: One spraybooth PSB-WS-145 with one natural gas/propane drying oven SDO-WS-146
 Control technology status: Controlled
 Application technique: Air atomization
 Transfer efficiency (%): 50%
 Date of construction or last modification: 2002
 Construction Permit Requirements: Covered by construction permit 02-MEC-617 issued on July 15, 2002.
 Oven curing: yes

Control device associated with this emissions unit
 Emission unit controlled: P145
 Control device number: C145
 Date of installation:
 Description of device: SPRAY BOOTH REPLACEABLE PARTICULATE OVERSPRAY FILTERS

Pollutant(s) controlled	Efficiency (%)
Particulate matter emissions	95.0

16. STACK INFORMATION

Stack Identification Number: S147
 Exhausting Unit(s): P147
 This stack has an actual exhaust point: Yes
 Discharge height above ground level (ft): 26
 Inside dimensions at outlet (ft): circular - 2.0
 Exhaust flow rate (Normal) (ACFM): 6500
 Exhaust gas temperature (Normal) (°F): 140
 Exhaust gas discharge direction: up
 Stack equipped with any obstruction: no

A. Emission Unit Information

Process number: P147
 Unit description: Two screening machines with one existing oven (associated with P76) and one natural gas/propane final cure oven SDO-WS-148.
 Control technology status: uncontrolled
 Application technique: Screen printing
 Transfer efficiency (%): 100%
 Date of construction or last modification: 2002
 Construction Permit Requirements: Covered by construction permit 02-MEC-617 issued on 7/15/2002.
 Oven curing: yes

INSIGNIFICANT EMISSIONS UNITS

Maintenance of Grounds, Equipment, and Bldgs
Demin and Oxy Scavenging of Water for Boilers
Boiler, Turbine, and HVAC System Maintenance
Pollution Control Equipment Maintenance
Int Comb Eng Used for Warehouse and Mat Trans
Fire Control Equipment
Janitorial Services
Office Activities
Convenience Water Heating
Convenience Space Heating (< 5 mil BTU/hr)
Sanitary sewer and plumbing venting
Bead Blaster
Finishing Operation (Stamping/punching, gluing, and assembly processes)
UV Cured Coating Operations
Vacuum Foroming Process
Paint Laboratory
Plastic Molding Processes
Plastic Extrusion Process
Plastic Recycling Process
Plastic Treatment Process
Water Chilling Process
Metal Treatment Process
Tungsten Metalizing Processes
Laser Etching of Plastic Parts
Coating mixing operation
Water waste evaporator unit

REVISION APPLICABILITY Any operation permit issued by the Department would revise air pollution control permits 98-JCH-176, 98-RV-011, 97-MWH-013, 97-RV-149, 91-DCF-099, 92-IRS-110, 93-POY-092, 93-POY-092A, 89-IRS-041, 89-IRS-041A, and EOP-10-KJC-83-32-082. This revision would remove emissions units which are no longer in operation and make record keeping requirements uniform for those that are still in operation. The revision would change facility wide usage limitations and record keeping requirements making them more restrictive so that the facility would be considered a synthetic minor, non-Part 70 source. Because these changes would not result in an increase in emissions or emission of an air contaminant not previously emitted, they are not considered a modification as defined in s. 285.01(26), Wis. Stats.

SOURCE SPECIFIC EMISSION LIMIT CALCULATIONS AND APPLICABLE REQUIREMENTS

For specific calculations please refer to the hand calculation sheets and referenced construction permits.

Natural Gas/Propane Boilers B20 and B21: Maximum theoretical emissions were calculated using emission factors from AP-42, 5th edition. Because each boiler was installed and last modified after April 1, 1972, each boiler is subject to s. NR 415.06(2)(a), Wis. Adm. Code, which limits particulate matter emissions to not more than 0.15 pounds per mmBtu heat input from any stack. _Because each boiler was installed and last modified after April 1, 1972, each boiler is subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not greater than 20% opacity.

Each boiler is subject to the general limitations for sulfur dioxide, volatile organic compounds, carbon monoxide and nitrogen oxides contained in ss. NR 417.03, NR 419.03, NR 426.03 and NR 428.03, Wis. Adm. Code, respectively. These general limitations would be included in Part II of any permit issued by the Department.

The boilers are not subject to the new source performance standards for fossil fuel steam generators of s. NR 440.19, Wis. Adm. Code because each boiler has a heat input rating less than 250 mmBtu per hour. The boilers are not subject to the new source performance standards for industrial-commercial-institutional steam generating unit of s. NR 440.205, Wis. Adm. Code, because each boiler has a heat input rating less than 100 mmBtu per hour and was installed prior to June 19, 1984. The boilers are not subject to the new source performance standards for small industrial-commercial-institutional steam generating units of s. NR 440.207, Wis. Adm. Code because each boiler was installed prior to June 9, 1989.

Sixteen Pad Printers P70: This process is covered by construction permits 89-IRS-041, 89-IRS-041A, 91-DCF-099, 92-IRS-110, 93-POY-092, and 93-POY-093A. Please refer to the Preliminary Determination for these permits for more details. Maximum theoretical emissions were calculated using worst case material usage rates, volatile organic compound contents and hazardous pollutant contents. The pad printers are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. Eighty five percent control of volatile organic compound emissions was determined to be technologically infeasible as part of construction permits listed above. The Department determined that LACT is the use of inks/coatings which contain no more than 6.5 pounds VOC/gallon, as applied.

One Roll Coater with a natural gas/propane fired drying oven P76: Maximum theoretical emissions were calculated using worst case material usage rates, volatile organic compound contents and hazardous pollutant contents. Because the roll coater was installed after April 1, 1972 and particulate matter emissions are created from fuel combustion in the oven, the coater is subject to s. NR 415.06(2)(a), Wis. Adm. Code which limits particulate matter emissions to not more than 0.15 pounds per mmBtu of heat input. Because the coater was constructed after April 1, 1972 it is subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

The roll coater was originally permitted to only coat plastic parts but as part of this operation permit the original construction permit will be revised to allow for the coating of metal parts as well. Because this change does not cause an increase in emissions it is not a modification. When coating plastic parts the roll coater is subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. Eighty five percent control of volatile organic compound emissions was determined to be technologically infeasible as part of construction permit 98-JCH-176. The Department determined that LACT is the use of the roll coating application technique and the use of inks/coatings which contain no more than 6.8 pounds VOC/gallon, as applied. A coating limitation of 1333 gallons per month based on a twelve month rolling average was used in the 85 percent control infeasibility determination and would be included in any operation permit issued by the department. When coating metal parts the coater is subject to s. NR 422.15(2)(a), (b) and (c), Wis. Adm. Code which limits the volatile organic compound contents to not more than 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings, 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings, and 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator of all other coatings. The permittee shall comply with the volatile organic compound content limitation by the application of low solvent content coating technology.

The coater is subject to the general limitations for sulfur dioxide, carbon monoxide and nitrogen oxides contained in ss. NR 417.03, NR 426.03 and NR 428.03, Wis. Adm. Code, respectively. These general limitations would be included in Part II of any permit issued by the Department.

Five Lithographic Presses each with an UV Ovens P18: Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the facility is not located in Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington or Waukesha county the requirements of s. NR 422.142, Wis. Adm. Code do not apply, pursuant to s. NR 422.142(1), Wis. Adm. Code. Because the maximum theoretical volatile organic compound emissions from each litho press are greater than 15 pounds per day, the presses are not be exempt from the requirements of s. NR 424.03(2), Wis. Adm. Code, pursuant to s. NR 424.03(1)(a)4., Wis. Adm. Code. Therefore the presses are subject to s. NR 424.03(2)(b), Wis. Adm. Code which requires control of volatile organic compound emissions by at least 85 percent. The permittee has submitted information to demonstrate that 85 percent control of volatile organic

compounds is technologically infeasible, therefore the presses are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. The Department has determined that LACT for this process would be to require the use of UV curable inks which are lower in VOCs than solvent based litho inks. This restriction would be included in any operation permit issued by the Department. Note: Chapter NR 466, Wis. Adm. Code which establishes National Emission Standards for Hazardous Air Pollutants for the Printing and Publishing Industry does not apply to P18 because this process is not a rotogravure or wide-web flexographic printing presses. Additionally, the potential facility wide emissions of each HAP regulated by the Clean Air Act are less than 10 tons per year and the potential facility wide emissions of all HAPs regulated by the Clean Air Act combined are less than 25 tons per year

Miscellaneous Facility Wide Cleanup P77: Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because cleanup is performed using a wipe cleaning operation and the facility is located outside of Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington or Waukesha counties, it is exempt from the requirements of s. NR 423.03, Wis. Adm. Code, pursuant to s. NR 423.03(2)(g)1., Wis. Adm. Code. The cleanup solvent use is subject to general emission limitations for volatile organic compounds outline in ss. NR 419.03 and NR 419.04, Wis. Adm. Code which would be included in Part II of any operation permit issued by the Department.

Two Screening Machines with natural gas/propane drying oven P28: This process is covered by construction permit 97-MWH-113. Please refer to the Preliminary Determination for this permit for more details. Maximum theoretical emissions were calculated using worst case material usage rates, volatile organic compound contents and hazardous pollutant contents. Because the facility is not located in Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, or Waukesha counties the screening machines are not subject to the requirements of s. NR 422.145, Wis. Adm. Code for screen printing, pursuant to s. NR 422.03(4m), Wis. Adm. Code. The screening machines are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. Eighty five percent control of volatile organic compound emissions was determined to be technologically infeasible as part of construction permit 97-MWH-113. The Department determined that LACT is the use of inks/coatings which contain no more than 6.9 pounds VOC/gallon, as applied. A coating limitation of 1241 gallons per month based on a twelve month rolling average was used in the 85 percent control infeasibility determination and would be included in any operation permit issued by the department.

Because the printing lines were installed after April 1, 1972 and particulate matter emissions are created from fuel combustion in the ovens, they are subject to s. NR 415.06(2)(a), Wis. Adm. Code which limits particulate matter emissions to not more than 0.15 pounds per mmBtu of heat input. Because the lines were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

Two Roll Coaters with a natural gas or LP fired drying oven P29: Maximum theoretical emissions were calculated using worst case material usage rates, volatile organic compound contents and hazardous pollutant contents. Because the roll coaters were installed after April 1, 1972 and particulate matter emissions are created from fuel combustion in the oven, the coaters are subject to s. NR 415.06(2)(a), Wis. Adm. Code which limits particulate matter emissions to not more than 0.15 pounds per mmBtu of heat input. Because the coaters were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

Because the coaters are equipped with a natural gas/propane curing oven, the coaters are subject to s. NR 422.15(2)(a), (b) and (c), Wis. Adm. Code which limits the volatile organic compound contents to not more than 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings, 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings, and 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator of all other coatings. The permittee shall comply with the volatile organic compound content limitation by the application of low solvent content coating technology, thermal oxidation, provided that 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the oxidation are oxidized to non-organic compounds, or by using in-line averaging. Please see the draft permit for details on how to calculate daily volume-weighted average

VOC content. Where the RACT requirements are met by means of a natural gas fired incinerator, use of the incinerator shall be required only during the ozone season, provided that operation of the incinerator is not required for purposes of occupational health or safety or for the control of toxic or hazardous substances, malodors, or other pollutants regulated by other sections of chs. 400 to 499, Wis. Adm. Code, pursuant to s. NR 425.04(4), Wis. Adm. Code.

Each coater is subject to the general limitations for sulfur dioxide, carbon monoxide and nitrogen oxides contained in ss. NR 417.03, NR 426.03 and NR 428.03, Wis. Adm. Code, respectively. These general limitations would be included in Part II of any permit issued by the Department.

Two Roll Coaters with a natural gas/propane fired drying oven P37: Maximum theoretical emissions were calculated using worst case material usage rates, volatile organic compound contents and hazardous pollutant contents. Because the roll coaters were installed after April 1, 1972 and particulate matter emissions are created from fuel combustion in the oven, the coaters are subject to s. NR 415.06(2)(a), Wis. Adm. Code which limits particulate matter emissions to not more than 0.15 pounds per mmBtu of heat input. Because the coaters were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

Because the coaters are equipped with a natural gas/propane curing oven, the coaters are subject to s. NR 422.15(2)(a), (b) and (c), Wis. Adm. Code which limits the volatile organic compound contents to not more than 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings, 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings, and 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator of all other coatings. The permittee shall comply with the volatile organic compound content limitation by the application of low solvent content coating technology, thermal oxidation, provided that 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the oxidation are oxidized to non-organic compounds, or by using in-line averaging. Please see the draft permit for details on how to calculate daily volume-weighted average VOC content. Where the RACT requirements are met by means of a natural gas fired incinerator, use of the incinerator shall be required only during the ozone season, provided that operation of the incinerator is not required for purposes of occupational health or safety or for the control of toxic or hazardous substances, malodors, or other pollutants regulated by other sections of chs. 400 to 499, Wis. Adm. Code, pursuant to s. NR 425.04(4), Wis. Adm. Code. Note: Construction permit 98-RV-011 which covers P37 limited VOC emissions from the process to not more than 4000 pounds per month. This limitation was elected by the permit to avoid the need for an Environmental Assessment. Because any operation permit issued by the Department will limit VOCs from the entire facility to less than 100 tons per year, this process specific limitation is no longer needed and would not be included in any operation permit issued by the Department.

Each coater is subject to the general limitations for sulfur dioxide, carbon monoxide and nitrogen oxides contained in ss. NR 417.03, NR 426.03 and NR 428.03, Wis. Adm. Code, respectively. These general limitations would be included in Part II of any permit issued by the Department.

Two Screening Machines which use the drying oven associated with P28, P38: This process is covered by construction permit 98-JCH-176. Please refer to the Preliminary Determination for this permit for more details. Maximum theoretical emissions were calculated using worst case material usage rates, volatile organic compound contents and hazardous pollutant contents. Because the facility is not located in Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, or Waukesha counties the screening machines are not subject to the requirements of s. NR 422.145, Wis. Adm. Code for screen printing, pursuant to s. NR 422.03(4m), Wis. Adm. Code. The screening machines are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. Eighty five percent control of volatile organic compound emissions was determined to be technologically infeasible as part of construction permit 98-JCH-176. The Department determined that LACT is the use of inks/coatings which contain no more than 6.9 pounds VOC/gallon, as applied and the screen printing machines coating usage may not exceed a combined total of 1,000 gallons per month based on a twelve month rolling average.

Two Modified Plastic Parts Spray Booths with One Natural Gas Drying Oven, P56: This process is covered by construction permit 02-MEC-617. Please refer to the Preliminary Determination for this permit for more details.

Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the spray booths were constructed after April 1, 1972 they are subject to the most restrictive of s. NR 415.05(2), Wis. Adm. Code which limits particulate matter emissions to not more than the rate calculated using the process weight rate equation or s. NR 415.05(1)(o), Wis. Adm. Code which limits particulate matter emissions to not more than 0.40 pounds per 1000 pounds gas. In this case the emission rate calculated using the process weight rate equation is most restrictive. Because the spray booths were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

Because the facility is not located in Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha counties the spray booths are not subject to s. NR 422.083, Wis. Adm. Code for plastic parts coating, pursuant to s. NR 422.083(1), Wis. Adm. Code. The spray booths are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. The permittee has submitted information indicating that 85 percent control of volatile organic compound emissions is technologically infeasible (see hand calculations). The permittee has proposed the implementation of an environmental management system (EMS) which looks at the facility's significant environmental aspects, considers those aspects in establishing objectives and targets for improving environmental performance, and implementation of a program to achieve the targets to be LACT for process P56. The Department has determined that LACT shall be the implementation of an EMS which addresses volatile organic compounds from the facility.

The booths are subject to the general limitations for sulfur dioxide, carbon monoxide and nitrogen oxides contained in ss. NR 417.03, NR 426.03 and NR 428.03, Wis. Adm. Code, respectively. These general limitations would be included in Part II of any permit issued by the Department.

Four Plastic Parts Spray Booths with One Electric and One Natural Gas/Propane Drying Oven, P108: This process is covered by construction permit 93-POY-092. Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the spray booths were constructed after April 1, 1972 they are subject to the most restrictive of s. NR 415.05(2), Wis. Adm. Code which limits particulate matter emissions to not more than the rate calculated using the process weight rate equation or s. NR 415.05(1)(o), Wis. Adm. Code which limits particulate matter emissions to not more than 0.40 pounds per 1000 pounds gas. As part of construction permit 93-POY-092 an emission limitation of 0.22 pounds per hour was determined. This limitation is necessary to ensure national ambient air quality standards for particulate matter emissions are attained and maintained. This more restrictive emission limitation would be included in any operation permit issued by the Department. Because the spray booths were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

The spray paint booths are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. As part of the review for permit 93-POY-092, the Department determined 85 percent control of volatile organic compound emissions to be technologically infeasible and determined LACT to be the use of high volume low pressure (HVLP) spraying techniques on parts with the narrowest portion of the surface greater than 1.75 inches and the shallow recesses with depths of less than 0.25 inches. Air atomization techniques may be used on parts with the narrowest portion of the surface less than or equal to 1.75 inches, or the shallow recesses with depths of greater than or equal to 0.25 inches, or in cases where the permittee can show that customer finish requirements cannot be achieved with HVLP. The operating pressure of the HVLP spray gun may not exceed 10 pounds per square inch (gauge). Additionally LACT was determined to be the use of coatings with a maximum VOC content of 6.2 pounds per gallon as applied.

Four Plastic Parts Spray Booths with One Natural Gas/Propane Drying Oven, P113: This process is covered by construction permit 93-POY-092. Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the spray booths were constructed after April 1, 1972 they are subject to the most restrictive of s. NR 415.05(2), Wis. Adm. Code which limits particulate matter emissions to not more than the rate calculated using the process weight rate equation or s. NR 415.05(1)(o), Wis. Adm. Code which limits particulate matter emissions to not more than 0.40 pounds per 1000 pounds gas. As part of construction permit 93-POY-092 an emission limitation of 0.33 pounds per

hour was determined. This limitation is necessary to ensure national ambient air quality standards for particulate matter emissions are attained and maintained. This more restrictive emission limitation would be included in any operation permit issued by the Department. Because the spray booths were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

The spray paint booths are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. As part of the review for permit 93-POY-092, the Department determined 85 percent control of volatile organic compound emissions to be technologically infeasible and determined LACT to be the use of high volume low pressure (HVLP) spraying techniques on parts with the narrowest portion of the surface greater than 1.75 inches and the shallow recesses with depths of less than 0.25 inches. Air atomization techniques may be used on parts with the narrowest portion of the surface less than or equal to 1.75 inches, or the shallow recesses with depths of greater than or equal to 0.25 inches, or in cases where the permittee can show that customer finish requirements cannot be achieved with HVLP. The operating pressure of the HVLP spray gun may not exceed 10 pounds per square inch (guage). Additionally LACT was determined to be the use of coatings with a maximum VOC content of 6.2 pounds per gallon as applied.

Four Plastic Parts Spray Booths with One Electric Drying Oven, P134: This process is covered by construction permit 02-MEC-617. Please refer to the Preliminary Determination for this permit for more details. Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the spray booths were constructed after April 1, 1972 they are subject to the most restrictive of s. NR 415.05(2), Wis. Adm. Code which limits particulate matter emissions to not more than the rate calculated using the process weight rate equation or s. NR 415.05(1)(o), Wis. Adm. Code which limits particulate matter emissions to not more than 0.40 pounds per 1000 pounds gas. In this case the emission rate calculated using the process weight rate equation is most restrictive. Because the spray booths were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

Because the facility is not located in Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha counties the spray booths are not subject to s. NR 422.083, Wis. Adm. Code for plastic parts coating, pursuant to s. NR 422.083(1), Wis. Adm. Code. The spray booths are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. The permittee has submitted information indicating that 85 percent control of volatile organic compound emissions is technologically infeasible (see hand calculations). The permittee has proposed the implementation of an environmental management system (EMS) which looks at the facility's significant environmental aspects, considers those aspects in establishing objectives and targets for improving environmental performance, and implementation of a program to achieve the targets to be LACT for process P134. The Department has determined that LACT shall be the implementation of an EMS which addresses volatile organic compounds from the facility.

Four Plastic Parts Spray Booths with Two Electric Drying Ovens, P139: This process is covered by construction permit 02-MEC-617. Please refer to the Preliminary Determination for this permit for more details. Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the spray booths were constructed after April 1, 1972 they are subject to the most restrictive of s. NR 415.05(2), Wis. Adm. Code which limits particulate matter emissions to not more than the rate calculated using the process weight rate equation or s. NR 415.05(1)(o), Wis. Adm. Code which limits particulate matter emissions to not more than 0.40 pounds per 1000 pounds gas. In this case the emission rate calculated using the process weight rate equation is most restrictive. Because the spray booths were constructed after April 1, 1972 they are subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

Because the facility is not located in Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha counties the spray booths are not subject to s. NR 422.083, Wis. Adm. Code for plastic parts coating, pursuant to s. NR 422.083(1), Wis. Adm. Code. The spray booths are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. The permittee has submitted information indicating that 85 percent control of volatile organic compound emissions is technologically infeasible (see hand calculations). The

permittee has proposed the implementation of an environmental management system (EMS) which looks at the facility's significant environmental aspects, considers those aspects in establishing objectives and targets for improving environmental performance, and implementation of a program to achieve the targets to be LACT for process P139. The Department has determined that LACT shall be the implementation of an EMS which addresses volatile organic compounds from the facility.

One Plastic Parts Spray Booths with One Natural Gas/Propane Drying Oven, P145: This process is covered by construction permit 02-MEC-617. Please refer to the Preliminary Determination for this permit for more details. Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the spray booth was constructed after April 1, 1972 it is subject to the most restrictive of s. NR 415.05(2), Wis. Adm. Code which limits particulate matter emissions to not more than the rate calculated using the process weight rate equation or s. NR 415.05(1)(o), Wis. Adm. Code which limits particulate matter emissions to not more than 0.40 pounds per 1000 pounds gas. In this case the emission rate calculated using the process weight rate equation is most restrictive. Because the spray booth was constructed after April 1, 1972 it is subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

Because the facility is not located in Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha counties the spray booths are not subject to s. NR 422.083, Wis. Adm. Code for plastic parts coating, pursuant to s. NR 422.083(1), Wis. Adm. Code. The spray booth is subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. The permittee has submitted information indicating that 85 percent control of volatile organic compound emissions is technologically infeasible (see hand calculations). The permittee has proposed the implementation of an environmental management system (EMS) which looks at the facility's significant environmental aspects, considers those aspects in establishing objectives and targets for improving environmental performance, and implementation of a program to achieve the targets to be LACT for process P145. The Department has determined that LACT shall be the implementation of an EMS which addresses volatile organic compounds from the facility.

The booth is subject to the general limitations for sulfur dioxide, carbon monoxide and nitrogen oxides contained in ss. NR 417.03, NR 426.03 and NR 428.03, Wis. Adm. Code, respectively. These general limitations would be included in Part II of any permit issued by the Department.

Two Screening Machines which use an existing drying oven and a new natural gas/propane oven, P147: This process is covered by construction permit 02-MEC-617. Please refer to the Preliminary Determination for this permit for more details. Maximum theoretical emissions were calculated using worst case material usage rates, solid contents, volatile organic compound contents and hazardous pollutant contents. Because the facility is not located in Kenosha, Kewaunee, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Washington, or Waukesha counties the screening machines are not subject to the requirements of s. NR 422.145, Wis. Adm. Code for screen printing, pursuant to s. NR 422.03(4m), Wis. Adm. Code. The screening machines are subject to s. NR 424.03(2)(c), Wis. Adm. Code which requires the use of the latest available control techniques and operating practices demonstrating best current technology (LACT) to control volatile organic compound emissions. The permittee has submitted information indicating that 85 percent control of volatile organic compound emissions is technologically infeasible (see hand calculations). The permittee has proposed the implementation of an environmental management system (EMS) which looks at the facility's significant environmental aspects, considers those aspects in establishing objectives and targets for improving environmental performance, and implementation of a program to achieve the targets to be LACT for process P147. The Department has determined that LACT shall be the implementation of an EMS which addresses volatile organic compounds from the facility. Because the natural gas drying oven has a heat input rating of less than 1 mmBtu per hour, it is exempt from the particulate matter emission limitations of s. NR 415.06, Wis. Adm. Code. Because the oven will be constructed after April 1, 1972 it is subject to s. NR 431.05, Wis. Adm. Code which limits visible emissions to not more than 20 percent opacity.

One Roll Coating Machine which uses an existing drying oven included under P29, P149: This process is exempt from construction permit requirements pursuant to s. NR 406.04(1)(g), Wis. Adm. Code because VOC emissions are less than 1666 pounds per month. Any operation permit issued by the Department would require the permittee to keep records to document that emissions are below this level. Maximum theoretical emissions were calculated using worst case material usage rates, volatile organic compound contents and hazardous pollutant contents. Because the

coater uses a curing oven, it is subject to s. NR 422.15(2)(a), (b) and (c), Wis. Adm. Code which limits the volatile organic compound contents to not more than 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings, 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings, and 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator of all other coatings. The permittee shall comply with the volatile organic compound content limitation by the application of low solvent content coating technology. This roll coating machine shares use of the the natural gas/propane drying oven under process P29. The requirements for the drying oven will be included with that process.

Entire Facility:

Hazardous Air Contaminant Review - ch. NR 445, Wis. Adm. Code Requirements: Emissions from firing natural gas and propane, which are group I virgin fossil fuels, in boilers B20 and B21, and in the ovens associated with P28, P29, P37, P56, P76, P108, P113, P145, P147 are exempt from ch. NR 445, Wis. Adm. Code requirements, pursuant to ss. NR 445.04(1)(c)1., (3)(c)1, (4)(c)1., and (4r)(b)1. and ss. NR 445.05(1)(c)1., (3)(c)1, (4)(c)1., and (4r)(b)1., Wis. Adm. Code. Emissions of all other hazardous pollutants regulated by ch. NR 445, Wis. Adm. Code are below the corresponding Table Values with the exception of 2-butoxyethanol, n-butyl alcohol, cyclohexanone, diisobutyl ketone, isophorone, toluene, and formaldehyde. A modeling analysis of 2-butoxyethanol, n-butyl alcohol, cyclohexanone, diisobutyl ketone, isophorone, and toluene shows that the impact from the facility are less than their respective acceptable ambient concentration. See the Air Quality Review section below for details. The permittee has elected to limit formaldehyde emissions to less than the Table 3B level of 250 pounds per hour. This more restrictive limitation would be included in any operation permit issued by the Department.

Hazardous Air Pollutant Review - Hazardous Air Pollutants Regulated by the Clean Air Act: The permittee elected limitations to restrict the potential emissions of each hazardous air pollutant regulated by the Clean Air Act to less than 10 tons per year and the potential emissions of all hazardous air pollutants regulated by the Clean Air Act combined to less than 25 tons per year. Therefore, the facility is considered a synthetic minor source of hazardous air pollutants. See the emission summary table below. Note: As part of the Environmental Cooperative Agreement the permittee has selected even more restrictive limitations. They have elected to limit the potential emissions of each hazardous air pollutant regulated by the Clean Air Act to less than 8 tons per year and the potential emissions of all hazardous air pollutants regulated by the Clean Air Act combined to less than 20 tons per year.

Variations Granted Under the Cooperative Agreement between Northern Engraving and the Department:

Part I.A. of the attached Draft Operation Permit includes the requirements the permittee would be required to meet while operating under an approved Cooperative Agreement. Part I.B. includes the permittee's applicable requirements under ch. 285, Wis. Stats. and ss. NR 400 to 499, Wis. Adm. Code as described above. Part I.B. of the draft permit would become effective if the proposed Cooperative Agreement expires or is revoked for any reason. The proposed variations under Part I.A. of the Draft Operation Permit and the proposed Cooperative Agreement are as follows:

1. Item: Waiver from the requirement to obtain a construction permit prior to commencing construction and initial operation of new process equipment, commencing modification and initial operation of existing equipment, or relocating existing process equipment between Northern Engravings Holmen, Sparta, Galesville, and West Salem facilities.

Previous Requirements to be Superseded by the Cooperative Agreement [source of the requirement]:

Requirement to obtain a construction permit prior to construction, reconstruction, replacement, relocation or modification of a minor stationary source that is not otherwise exempt under s. NR 406.04, Wis. Adm. Code [s. NR 406.03, Wis. Adm. Code]

Proposed Requirement Under Cooperative Agreement:

a. New Equipment Construction and Modification: The permittee may commence construction or modification (but not operation) of new process equipment prior to obtaining a construction permit, provided the following conditions are met. The following conditions do not apply if a proposed project is

exempt from the requirement to obtain a construction permit, pursuant to s. NR 406.04, Wis. Adm. Code. [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

- (1) The permittee shall submit the following information to the Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI, 54601 **OR** other location specified by the Department:
 - (a) Two copies of a complete construction and operation permit application describing the proposed equipment;
 - (b) An application fee of \$1350 or other amount as required by s. NR 410.03(1)(d), Wis. Adm. Code; and
 - (c) Information describing how the interested persons group was notified of the proposed project. [ss. 299.80(10) and (11)(b), Wis. Stats.]
- (2) The Department shall process the permit application in accordance with ss. 285.60 through 285.69, Wis. Stats and ss. NR 406 and NR 407, Wis. Adm. Code, however, the permittee need not wait for permit issuance to commence construction. The Department shall process the permit application as both a construction permit and a significant revision to this operation permit and issue both permits simultaneously to reduce the administrative burden of issuing a construction permit that expires 18 months after issuance followed by an operation permit. The Department shall send an invoice outlining the fees required for processing the construction permit for the proposed project, including the fees for an expedited permit review authorized by s. NR 410.03(o), Wis. Adm. Code, less the \$1350 permit application fee. [ss. 299.80(2)(h), (4)(b), (10) and (11)(b), Wis. Stats.]
- (3) The permittee shall pay the total amount of the fee invoice within 30 days of receipt.¹ [s. 299.80(10), Wis. Stats.]
- (4) The permittee shall continue to comply with all the requirements of Part I.A. of this permit so long as the cooperative agreement is in affect.² [s. 299.80(2)(h) and (4)(b), Wis. Stats.]
- (5) Nothing in this section or in any Cooperative Agreement between the Department and the permittee shall be construed as a guarantee that the Department will issue an air pollution control construction and operation permit for a proposed project. The decision on whether to approve a permit application will be made according to the requirements of chapters NR 400 through NR 499, Wis. Adm. Code and s. 285.60 through 285.69, Wis. Stats. If the Department denies a permit application pursuant to ss 285.61 through 285.64, Wis. Stats. all costs and risks associated with installing and operating the proposed equipment shall be incurred solely by the permittee. In the

¹ Pursuant to s. 299.80(10), Wis. Stats., a participant in a cooperative agreement shall pay the same fees required under chs. 280 to 295, Wis. Stats. that it would be required to pay if it had not entered into a cooperative agreement. Therefore, while the requirement to obtain a construction permit prior to installation is waived, the permittee is still required to pay the fees that would have been assessed had a construction permit been issued under ch. NR 406, wis. Adm. Code.

² By continuing to comply with the facility wide emission limitations outlined in Part I.A. the net emissions increase from any new sources or relocation of any existing sources from other facilities, will not exceed the major stationary source levels of s. NR 405.02(22)(a), Wis. Adm. Code triggering Prevention of Significant Deterioration (PSD) Requirements. The existing facility potential emissions of all criteria pollutants is less than 250 tons per year and the facility is not included in the source categories listed in s. NR 405.07(4), Wis. Adm. Code, therefore the existing facility is a synthetic minor source for PSD purposes. Note: This facility is not located in an area designated nonattainment. Also, by continuing to comply with the facility wide emissions limitations, the potential emissions increase from any new sources or relocated existing sources will not exceed 100 tons per year after controls for any criteria pollutant. Therefore none of the changes will be considered a Type II action requiring an environmental assessment. Finally, by continuing to comply with the facility wide emission limitations, the facility would not become a major source for Part 70 purposes for either volatile organic compound or hazardous air pollutant emissions. Requirement I.A.5.a.(1)(g) of this permit requires that any changes that result in potential facility wide emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeding 100 tons per year follow permit issuance requirements of chs. NR 406 and NR 407, Wis. Adm. Code.

event that the construction and operation permit application for the proposed project is denied, the permittee shall cease construction of the equipment in question immediately.

b. New Equipment Operation: The permittee may operate new process equipment, provided one of the following alternate scenarios are met. The following conditions do not apply if a proposed project is exempt from the requirement to obtain a construction permit, pursuant to s. NR 406.04, Wis. Adm. Code. [s. 299.80(2)(h) and (4)(b), Wis. Stats.]

- (1) *Alternate Scenario #1:* The permittee may operate new process equipment provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.5.a. and the Department issues a construction permit pursuant to ss. 285.60 through 285.69, Wis. Stats and ss. NR 406 and NR 407, Wis. Adm. Code. The permittee shall operate the new process equipment in compliance with the conditions contained in any construction permit issued by the Department. [s. NR 406.03, Wis. Adm. Code]

- (2) *Alternate Scenario #2:* The permittee may initially operate new process equipment prior to obtaining a construction permit provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.5.a. and the following conditions are met: [s. 299.80(2)(h) and (4)(b), Wis. Stats.]
 - (a) The permittee shall submit two copies of the following information to the Department of Natural Resources, La Crosse Area Office, 3550 Mormon Coulee Road, Room 104, La Crosse, WI, 54601 **OR** other location specified by the Department, 14 calendar days prior to the date of initial operation:
 - (i) Information identifying all applicable requirements from the Wisconsin Statutes, Wisconsin Administrative Code, and federal Clean Air Act for the proposed equipment;
 - (ii) A quantification the air pollution emissions that would result from the proposed project;
 - (iii) A computer dispersion modeling analysis showing the National Ambient Air Quality Standards will be protected if the proposed project results in an increase in potential particulate matter, sulfur dioxide, nitrogen oxide, and/or carbon monoxide emissions.
 - (iv) A computer dispersion modeling analysis showing the Acceptable Ambient Concentrations will be protected if the proposed project results in an increase in emissions of any hazardous air pollutant listed in ch. NR 445, Wis. Adm. Code so that the resulting facility total emissions of the hazardous air pollutant are above the corresponding Table Value(s) **OR** results in the emission of any hazardous air pollutant listed in ch. NR 445, Wis. Adm. Code that was not previously emitted, at a rate greater than its corresponding Table Value(s); and
 - (v) An analysis showing the proposed project will not cause the total facility wide potential emissions of particulate matter, sulfur dioxide, nitrogen oxides or carbon monoxide to exceed 100 tons per year. Any proposed new or relocated source that will result in the facility wide potential emissions of any one of these pollutants exceeding 100 tons per year is not eligible for this waiver. If the facility wide potential emissions of any one of the pollutants would be greater than 100 tons per year as the result of a proposed project, the permittee shall comply with the construction permit requirements outlined in ch. NR 406, Wis. Adm. Code and the significant operation permit revision requirements of s. NR 407.13, Wis. Adm. Code.³ [ss. 299.80(10) and (11)(b), Wis. Stats.]

 - (b) The Department has 14 calendar days from the date that all the information outlined in (a) is received to request additional information or object to the proposed project. If the Department requests additional information during the original 14 calendar day period the Department shall have an additional 7 calendar days from the date of receipt of the information to request additional

³ This requirement is necessary because if the potential emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeds 100 tons the facility would be considered a major source for Part 70 purposes and would be required to obtain either a Part 70 source permit or a synthetic minor, non-Part 70 source permit containing conditions that limit the potential emissions of all criteria pollutants to less than 100 tons per year.

information or object to the proposed project. Under no scenario shall the Department have less than 14 days to review original submittal. If the Department does not respond within 14 calendar days from the date that all the information outlined in (a) is submitted, or within 7 days from the date that any additional information requested by the Department is submitted, whichever is later, the permittee may commence initial operation of the proposed equipment. The Department may provide written approval to commence initial operation of the proposed equipment prior to the end of the 14 calendar day period. If this is the case the permittee may commence initial operation upon receipt of this written approval. [ss. 299.80(2)(h) and (11)(b), Wis. Stats.]

- (3) *Alternate Scenario #3:* The permittee may initially operate new process equipment prior to obtaining a construction permit provided the permittee submits a complete construction and operation permit application as required by the conditions of I.A.5.a. and the following conditions are met: [s. 299.80(2)(h) and (4)(b), Wis. Stats.]
- (a) The Department provides written approval to commence initial operation of the proposed equipment. This written approval shall only be provided after the Department completes an air quality dispersion modeling analysis to ensure that the national ambient air quality standards and acceptable ambient concentrations will be protected while the proposed equipment is operating; [s. NR 406.09, Wis. Adm. Code]
- (b) The permittee shall comply with any specific conditions included in the Department's written approval to commence initial operation;
- (4) The permittee shall continue to comply with all the requirements of Part I.A. of this permit so long as the cooperative agreement is in affect.⁴ [s. 299.80(2)(h) and (4)(b), Wis. Stats.]
- (5) Nothing in this section or in any Cooperative Agreement between the Department and the permittee shall be construed as a guarantee that the Department will issue an air pollution control construction and operation permit for a proposed project. The decision on whether to approve a permit application will be made according to the requirements of chapters NR 400 through NR 499, Wis. Adm. Code and s. 285.60 through 285.69, Wis. Stats. If the Department denies a permit application pursuant to ss 285.61 through 285.64, Wis. Stats. all costs and risks associated with installing and operating the proposed equipment shall be incurred solely by the permittee. In the event that the construction and operation permit application for the proposed project is denied, the permittee shall cease construction and/or operation of the equipment in question immediately.

2. Item: Waiver from individual process line LACT (latest available control technique) requirements for controlling volatile organic compound emissions.

Previous Requirements to be Superseded by the Cooperative Agreement [source of the requirement]:
Requirement to control volatile organic compound emissions from process lines on which construction or

⁴ By continuing to comply with the facility wide emission limitations outlined in Part I.A. the net emissions increase from any new sources or relocation of any existing sources from other facilities, will not exceed the major stationary source levels of s. NR 405.02(22)(a), Wis. Adm. Code triggering Prevention of Significant Deterioration (PSD) Requirements. The existing facility potential emissions of all criteria pollutants is less than 250 tons per year and the facility is not included in the source categories listed in s. NR 405.07(4), Wis. Adm. Code, therefore the existing facility is a synthetic minor source for PSD purposes. Note: This facility is not located in an area designated nonattainment. Also, by continuing to comply with the facility wide emissions limitations, the potential emissions increase from any new sources or relocated existing sources will not exceed 100 tons per year after controls for any criteria pollutant. Therefore none of the changes will be considered a Type II action requiring an environmental assessment. Finally, by continuing to comply with the facility wide emission limitations, the facility would not become a major source for Part 70 purposes for either volatile organic compound or hazardous air pollutant emissions. Requirement I.A.5.a.(1)(g) of this permit requires that any changes that result in potential facility wide emissions of particulate matter, sulfur dioxide, nitrogen oxide or carbon monoxide emissions exceeding 100 tons per year follow permit issuance requirements of chs. NR 406 and NR 407, Wis. Adm. Code.

modification commenced on or after August 1, 1979, and which are not subject to emission limitations listed elsewhere in chs. NR 419 to 423, Wis. Adm. Code by at least 85 percent OR where 85 percent control has been demonstrated to be technologically infeasible, to control volatile organic compounds using the latest available control techniques and operating practices demonstration best current technology, as approved by the Department. [s. NR 424.03(2)(b) and (c), Wis. Adm. Code]

West Salem - LACT Permit Requirements:

- Process P18: s. NR 424.03(2)(b) and (c), Wis. Adm. Code
- Process P28: Permit 97-MWH-013 Condition I.I.A.1.
- Process P38: Permit 98-JCH-176 Conditions I.I. Applicable Limitation for VOCs
Conditions I.I.A.2.
- Process P56: Permit 02-MEC-617 Conditions I.A.1.
- Process P70: Permit 89-IRS-041 Condition I.A.8.
Permit 91-DCF-099 Condition I.H.1. Applicable Limitation for VOCs
Condition I.I.1. Applicable Limitation for VOCs
Condition I.J.1. Applicable Limitation for VOCs
Permit 92-IRS-110 Condition I.A.1. Applicable Limitation for VOCs
Permit 93-POY-092 Condition I.D. Applicable Limitation for VOCs
- Process P76: Permit 98-JCH-176 Condition I.II. Applicable Limitation for VOCs
Condition I.II.2.a.
- Process P108: Permit 93-POY-092 Condition I.B. Applicable Limitation for VOCs
- Process P113: Permit 93-POY-092 Condition I.C. Applicable Limitation for VOCs
- Process P134: Permit 02-MEC-617 Condition I.B.1.
- Process P139: Permit 02-MEC-617 Condition I.C.1.
- Process P145: Permit 02-MEC-617 Condition I.D.1.
- Process P147: Permit 02-MEC-617 Condition I.E.1.

Proposed Requirement Under Cooperative Agreement: Total volatile organic compound emissions from the West Salem facility may not exceed 85 tons per year averaged over each 12 consecutive month period.

- 3. Item: Monthly rather than daily record keeping requirements.

Previous Requirements to be Superseded by the Cooperative Agreement [source of requirement]: The following permit conditions require Northern Engraving to keep daily records:

West Salem – Daily Recordkeeping Requirements

- Section NR 439.04(3), Wis. Adm. Code
- Permit 89-IRS-041 Condition I.B.5.
- Permit 91-DCF-099 Condition I.K.6.
- Permit 92-IRS-110 Condition I.E.6.
- Permit 93-POY-092 Facility Wide Permit Condition 6.
- Permit 98-JCH-176 Entire Facility Condition 2.
- Permit 97-MWH-013 Total Facility Limit 3.a.
- Permit 98-RV-011 Total Facility Conditions 3.a. and 3.e.
- Permit 02-MEC-617 Conditions I.F.1.b.(1), I.F.1.c.(1), I.F.2.b.(1), I.F.2.c.(1), and I.F.2.b.(4)

Proposed Requirement Under Cooperative Agreement: To demonstrate compliance status with the facility wide emission limitations for volatile organic compound and hazardous air pollutants, Northern Engraving would be required to keep monthly records of VOC emissions as follows:

a. Compliance Demonstration Methods for VOCs:

- (1) Each month the permittee shall calculate the total volatile organic compound emissions from the facility as follows:

$$E = (1 \text{ ton}/2000 \text{ lbs}) \times \{[(U_1 \times W_1 \times C_1) + (U_2 \times W_2 \times C_2) + \dots + (U_n \times W_n \times C_n)]\}$$

$$- [(S_1 \times P_1) + (S_2 \times P_2) + \dots + (S_m \times P_m)]$$

where:

E is the monthly VOC emissions (tons/month);

U is the monthly usage of each ink, coating, solvent, or other VOC containing material used during the month (gallons/month);

W is the density of each ink, coating, solvent, or other VOC containing material used during the month (pounds/gallon)

C is the VOC content of each ink, coating, solvent, or other VOC containing material used during the month expressed as a weight fraction (i.e. if a material is 25% VOC by weight C would be 0.25);

n identifies each ink, coating, solvent or other VOC containing material used during the month;

S is the amount of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site each month (lbs/month);

P is the VOC content of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site each month expressed as a weight fraction (i.e. if a spent material is 25% VOC by weight P would be 0.25);

m identifies each spent ink, coating, solvent or other VOC containing material recovered and shipped off site during the month.

[s. NR 407.09(4)(a)1., Wis. Adm. Code]

- (2) To demonstrate compliance with the facility wide volatile organic compound emission limitation of 85 tons per year, the permittee shall calculate the total volatile organic compound emissions from the facility, averaged over each 12 consecutive month period by summing the monthly volatile organic compound emissions as calculated in a.(1) above for each consecutive 12 month period. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]
- (3) The permittee shall use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content (C_n) and the density (W_n) of the of the inks, coatings, solvents or other VOC containing materials used. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern. [s. NR 439.04(1)(d), Wis. Adm. Code]
- (4) The permittee shall analyze the spent ink, coating, solvent and other VOC containing material recovered and shipped off site to determine the VOC content (P) no less than: (a) each time there is a change to materials or process operations that may affect the waste stream; or (b) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

b. Record Keeping and Monitoring Requirements for VOCs:

- (1) The permittee shall keep records of the following for each ink, coating, solvent, or other VOC containing material used at the facility:
 - (a) A unique name or identification number; and
 - (b) The VOC content, expressed as a weight fraction (C_n).
 [s. NR 439.04(1)(d), Wis. Adm. Code]
- (2) The permittee shall keep monthly records of:
 - (a) The amount of each ink, coating, solvent, or other VOC containing material used in gallons per month (U_n);
 - (b) The density of each ink, coating, solvent, or other VOC containing material used in pounds per gallon (W_n);
 - (c) The amount of spent ink, coating, solvent, or other VOC containing material recovered and shipped off site in pounds per month (S_m);
 - (d) The VOC content of each spent ink, coating, solvent or other VOC containing material recovered and shipped off site, expressed as a weight fraction (P_m).
 - (e) The total monthly VOC emissions from the facility in tons per month (E), as calculated in a.(1); and

(f) The total VOC emissions from the facility in tons per year as calculated in a.(2).
[s. NR 439.04(1)(d), Wis. Adm. Code]

c. Compliance Demonstration Methods for HAPs:

- (1) Each month the permittee shall calculate the total emissions of each hazardous air pollutant from the facility regulated by the Clean Air Act as follows:⁵

$$E_x = (1 \text{ ton}/2000 \text{ lbs}) \times \{[(U_1 \times W_1 \times H_1) + (U_2 \times W_2 \times H_2) + \dots + (U_n \times W_n \times H_n)] \\ - [(S_1 \times I_1) + (S_2 \times I_2) + \dots + (S_m \times I_m)]\}$$

where:

E_x is the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act (tons/month);

x identifies each HAP emitted from the facility

U is the monthly usage of each ink, coating, solvent, or other HAP containing material used during the month (gallons/month);

W is the density of each ink, coating, solvent, or other HAP containing material used during the month (pounds/gallon)

H is the HAP content of each ink, coating, solvent, or other HAP containing material used during the month expressed as a weight fraction (i.e. if a material is 25% HAP by weight H would be 0.25);

n identifies each ink, coating, solvent or other HAP containing material used during the month;

S is the amount of each spent ink, coating, solvent or other HAP containing material recovered and shipped off site each month (lbs/month);

I is the HAP content of each spent ink, coating, solvent or other HAP containing material recovered and shipped off site each month expressed as a weight fraction (i.e. if a spent material is 25% HAP by weight I would be 0.25);

m identifies each spent ink, coating, solvent or other HAP containing material recovered and shipped off site during the month.

[s. NR 407.09(4)(a)1., Wis. Adm. Code]

- (2) To demonstrate compliance with the facility wide limitation on each hazardous air pollutant emissions of 8 tons per year, the permittee shall calculate the emissions of each hazardous air pollutant regulated by the Clean Air Act, averaged over each 12 consecutive month period by summing the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act as calculated in c.(1) for each consecutive 12 month period. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]

- (3) Each month the permittee shall calculate the total emissions of hazardous air pollutants regulated by the Clean Air Act as follows:

$$E_{\text{hap}} = \sum E_x$$

where:

E_{hap} is the monthly total emissions of all hazardous air pollutants regulated by the Clean Air Act that are emitted by the facility (tons/month);

E_x is the monthly emissions of each hazardous air pollutant regulated by the Clean Air Act (tons/month) as calculated in c.(1);

⁵ This calculation shall be performed for each hazardous air pollutant regulated by the Clean Air Act that is emitted from the facility.

x identifies each HAP emitted from the facility.
[s. NR 407.09(4)(a)1., Wis. Adm. Code]

- (4) To demonstrate compliance with the facility wide limitation on the total hazardous air pollutants emitted from the facility of 20 tons per year, the permittee shall calculate the total emissions of all hazardous air pollutants regulated by the Clean Air Act, averaged over each 12 consecutive month period by summing the monthly emissions of all hazardous air pollutants regulated by the Clean Air Act as calculated in c.(3) for each consecutive 12 month period. This calculation shall be performed within twenty calendar days of the end of each month for the previous 12 consecutive month period. [s. NR 407.09(4)(a)1., Wis. Adm. Code]
- (5) The permittee shall use coating manufacturer's formulation data to determine the HAP content (H_n) of the of the inks, coatings, solvents or other HAP containing materials used. [s. NR 439.04(1)(d), Wis. Adm. Code]
- (6) The permittee shall analyze the spent ink, coating, solvent and other HAP containing material recovered and shipped off site to determine the HAP content (H) no less than: (a) each time there is a change to materials or process operations that may affect the waste stream; or (b) quarterly, which ever is most frequent. [s. NR 439.04(1)(d), Wis. Adm. Code]

d. Record Keeping and Monitoring Requirements for HAPs:

- (1) The permittee shall keep records of the following for each ink, coating, solvent, or other HAP containing material used at the facility:
 - (a) A unique name or identification number; and
 - (b) The weight fraction of each HAP contained in the material (H_n).[s. NR 439.04(1)(d), Wis. Adm. Code]
- (2) The permittee shall keep monthly records of:
 - (a) The amount of each ink, coating, solvent, or other HAP containing material used in gallons per month (U_n);
 - (b) The density of each ink, coating, solvent, or other HAP containing material used in pounds per gallon (W_n);
 - (c) The amount of spent ink, coating, solvent, or other HAP containing material recovered and shipped off site in pounds per month (S_m);
 - (d) The weight fraction of each HAP contained in each spent ink, coating, solvent or other HAP containing material recovered and shipped off site, expressed as a weight fraction (I_m);
 - (e) The facility total monthly emissions of each HAP in tons per month (E_x), as calculated in c.(1);
 - (f) The total monthly HAP emissions from the facility in tons per month (E_{hap}), as calculated in c.(3);
 - (g) The facility total emissions of each HAP in tons per year as calculated in c.(2).
 - (h) The total HAP emissions from the facility in tons per year as calculated in c.(4).[s. NR 439.04(1)(d), Wis. Adm. Code]

e. Reporting Requirements: Report actual facility wide volatile organic compound and hazardous air pollutant emissions as follows:

- (a) The permittee shall submit a report summarizing the actual, facility wide volatile organic compound and hazardous air pollutant emissions for each consecutive 12 month period as calculated in conditions I.A.1.b.(2) and I.A.2.b.(2) and (4), every 6 months.
- (b) The period addressed by the report shall be the 6 month period starting on the date the Cooperative Agreement is signed or other date agreed upon and approved by DNR, U.S. EPA and the permittee, and each subsequent 6 month period thereafter.
- (c) A copy of the report shall be submitted to the DNR (Marty Sellers, Air Management Engineer, Department of Natural Resources, 3550 Mormon Coulee Road, La Crosse, WI 54601) and the U.S. EPA

(Steve Rothblatt, Branch Chief, Air Program Branch, U.S. EPA, 77 W. Jackson Blvd., Mailcode: AR-18J, Chicago, IL 60604) within twenty days following the end of the reporting period.

(d) If the report shows the actual facility wide volatile organic compound or hazardous air pollutant emissions have exceeded 50 percent of the allowable limitations outlined in conditions I.A.1.a and I.A.2.a.(1) and (2), the permittee shall provide an explanation why emissions reached the levels that they did and how they intend to ensure emissions will not exceed the allowable limitations outlined in conditions I.A.1.a. and I.A.2.a.(1) and (2). [s. NR 439.03(1)(a), Wis. Adm. Code]

4. Item: Waiver from the requirements for Processes P29, P37, P76, and P149 at the West Salem Facility to comply with the reasonable available control technology (RACT) requirements for controlling volatile organic compound emissions.

Previous Requirements to be Superseded by the Cooperative Agreement [source of requirement]:

1. 2 Roll Coating Machines P29: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis. Adm. Code, and conditions I.II.A.1.a., I.II.A.2., and I.II.A.3. of Air Pollution Control Permit 97-MWH-013]
- B. 2 Roll Coating Machines P37: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis. Adm. Code and conditions I.A.1.a., I.A.2. and I.A.3. of Air Pollution Control Permit 98-RV-011.]
- C. Roll Coating Line P76: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis. Adm.Code.]
- D. Roll Coating Machine P149: Requirement to limit volatile organic compound emissions from a miscellaneous metal parts or products coating line using baked or specially cured coating technology to not more than: (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings. [s. NR 422.15(2), Wis. Adm.Code.]

New Requirement: Volatile organic compound emissions from the West Salem facility may not exceed 85 tons per year averaged over each 12 consecutive month period.

The proposed agreement would allow a variance from the requirement to obtain a construction permit prior to constructing, modifying, relocating and initially operating process equipment provided the permittee meets the conditions listed under item 1. above. The permittee would be required to submit a complete construction and

operation permit application, an explanation of how they have informed their interested persons group, and the application fee prior to commencing construction. The permittee would assume the risk of constructing without a permit. In order to operate any new equipment the permittee would be required to comply with one of three alternate scenarios. Under the first scenario the permittee would not be allowed to operate the new equipment until the Department issues a construction permit. Under the second scenario the permittee would be required to submit a detailed review of the proposed project including a detailed modeling analysis, complete permit application and determination that the proposed equipment will meet applicable limitations. The Department would then have 14 calendar days from the date of the permittee's submittal to object to the proposal or request additional information. Under the third scenario the permittee would be allowed to initially operate only after receiving a written approval from the Department. The Department would only issue this approval after the air quality dispersion modeling analysis is completed and conditions are developed to ensure the national ambient air quality standards and the acceptable ambient concentrations are protected. Prior approval to construct or initially operate would not constitute final Department approval of any permit application. The Department will review the application and make a determination to approve or disapprove the permit application following the procedures of ch. 285, Wis. Stats and chs. NR 400 through 499, Wis. Adm. Code. If the Department does not approve the application, the permittee would be required to discontinue construction and initial operation at their own expense.

This variance from the requirement to obtain a construction permit prior to commencing construction and initial operation gives the permittee greater flexibility than otherwise allowed under chs. 280 to 295, Wis. Stats. and the rules promulgated under those chapters, pursuant to s. 299.80(2)(h), Wis. Stats. Due to the nature of the permittee's business they need to be responsive to their customer's demands in a shorter time frame than allowed by the current construction permit process. To be able to operate without a permit the permittee would either wait for the Department to issue a construction permit, complete an air quality dispersion modeling analysis and provide written approval, or take on additional responsibilities. The additional responsibility would include systematically assessing the pollution that the proposed project would cause and ensuring that they would comply with all applicable air pollution requirements. Because the permittee would be required to comply with a facility wide emissions cap even with the addition of any new equipment there would be no resulting increase in their potential facility emissions. The added flexibility provided by this variance would reduce the time and money spent not only by the permittee but also by the Department on administrative tasks that do not result in benefits to the environment, pursuant to s. 299.80(2)(i), Wis. Stats. Because of the fluctuating nature of their business the permittee currently submits a number of construction permit application each year in attempt to predict their customers' needs. The Department processes these applications and issues construction permits. The majority of the time, the permittee finds that the equipment they've permitted is not the equipment necessary to meet customer demands and they do not install it. The flexibility to construct and initially operate equipment in a shorter time frame would eliminate processing unnecessary permits saving both the permittee and the Department time and money and allowing both parties to focus on processing the permits that are required.

The proposed agreement would allow a variance from the LACT requirements for processes P18, P28, P38, P56, P70, P76, P108, P113, P134, P139, P145 and P147. These LACT requirements were previously determined by the Department as part of the review of the air pollution control permits listed above and are:

Process P18: the use of UV curable inks.

Process P28: the use of coatings or inks with a maximum VOC content of 6.9 pounds per gallon as applied and no more than 1241 gallons of ink per 12 consecutive month period.

Process P38: the use of coatings or inks with a maximum VOC content of 6.9 pounds per gallon as applied and no more than 1000 gallons of ink per 12 consecutive month period.

Process P56: operate under an environmental management system that addresses VOC emissions from the facility.

Process P70: the use of coatings or inks with a maximum VOC content of 6.5 pounds per gallon as applied

Process P76: the use of coatings or inks with a maximum VOC content of 6.8 pounds per gallon as applied and no more than 1333 gallons of ink per 12 consecutive month period.

Process P108: the use of coatings or inks with a maximum VOC content of 6.2 pounds per gallon as applied and the use of HVLP spraying techniques.

Process P113: the use of coatings or inks with a maximum VOC content of 6.2 pounds per gallon as applied and the use of HVLP spraying techniques.

Process P134: operate under an environmental management system that addresses VOC emissions from the facility.

Process P139: operate under an environmental management system that addresses VOC emissions from the facility.

Process P145: operate under an environmental management system that addresses VOC emissions from the facility.

Process P147: operate under an environmental management system that addresses VOC emissions from the facility.

The proposed agreement would also allow a variance from the RACT requirements for processes P29, P37, P76 and P149. The RACT requirements for these process lines would be the use of coatings with a maximum VOC content of not more than (a) 4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies clear coatings; (b) 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; (c) 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings.

As shown in the Facility Emissions section, the potential volatile organic compound emissions that could result if LACT and RACT were the only restriction applied to the facility is 2108.85 tons per year. The permittee has elected to take additional restrictions as part of their operation permit so the facility would be considered a synthetic minor, non-Part 70 source. Under this restriction the potential volatile organic compound emissions would be 99 tons per year. Under the Cooperative Agreement the permittee has proposed to further limit their potential volatile organic emissions to not more than 85 tons per year. This reduction in the overall level of volatile organic compound emissions satisfies the requirements that any variance granted under a Cooperative Agreement promote the reduction in overall levels of pollution to below the levels required under chs. 280 to 295, Wis. Stats., pursuant to s. 299.80(4)(b), Wis. Stats.

While the applicable LACT and RACT requirements are in terms of the pounds of volatile organic compounds in a gallon of material, the proposed variance does not limit the VOC content of the materials used at the plant, but limits the overall VOC emissions as shown above. Air pollution limitations are intended to protect National Ambient Air Quality Standards (NAAQSs) established by the U.S. Environmental Protection Agency. Currently there are no NAAQSs for VOC. Volatile organic compound emissions are regulated because they react with nitrogen oxides in the atmosphere on hot sunny days to form ozone, more commonly known as smog. If present at high enough concentrations, surface level ozone can potentially impact public health and the environment. The U.S. EPA has established NAAQSs for ozone. Because of the way that ozone is formed, it is generally a regional problem where many sources of VOC and nitrogen oxide emissions contribute to its formation. Some large urban areas including southeastern Wisconsin are classified as ozone nonattainment areas. None of the counties in the western part of Wisconsin including La Crosse, Trempealeau, and Monroe Counties are classified as nonattainment areas for ozone.

As the RACT requirements of ch. NR 422, Wis. Adm. Code are currently written, facilities which are located outside of Brown, Calumet, Dane, Dodge, Door, Fond du Lac, Jefferson, Kenosha, Kewaunee, Manitowoc, Milwaukee, Outagamie, Ozaukee, Racine, Rock, Sheboygan, Walworth, Washington, Waukesha and Winnebago counties and which have total emissions of VOC, with all control equipment inoperative, of less than 100 tons per year are exempt from the RACT requirements pursuant to s. NR 422.03(3), Wis. Adm. Code. The Northern Engraving - West Salem facility would meet both of these criteria under this proposed draft operation permit. It is not located in any of the above counties and has reduced its actual VOC emissions to less than 100 tons per year. (Note: In the past Northern Engraving's West Salem facility had actual emissions greater than 100 tons per year.) Pursuant to the exemption applicability outlined in s. NR 422.03, Wis. Adm. Code, once a facility exceeds the exemption level of 100 tons of VOC per year it is subject to RACT regardless of what their future VOC emissions are. The Northern Engraving - West Salem facility has been able to reduce their VOC emissions from greater than 100 tons per year to less than 100 tons per year and any operation permit issued to the facility would limit the facility's potential VOC emissions to less than 100 tons per year. Therefore granting Northern Engraving a variance from RACT would be no less stringent than the limitations that apply to an air pollution source of a similar size in the western part of Wisconsin.

To demonstrate that their VOC emissions remain below 85 tons per year, the permittee has proposed an alternate record keeping method to reduce their administrative burden. The permittee has proposed to keep monthly records of the VOC containing materials used at their facility to determine their overall facility emissions. These types of records should demonstrate compliance status with the alternate limitation of 85 tons of VOC per year as required by

s. 299.80(4)(b), Wis. Stats.

In addition to a more restrictive limitation on VOCs, the permittee has elected a more restrictive limitation on hazardous air pollutant emissions. To be a minor source of hazardous air pollutants, a facility's potential emissions of each hazardous air pollutant regulated by the Clean Air Act must be less than 10 tons per year and the potential emissions of all hazardous air pollutants regulated by the Clean Air Act combined must be less than 25 tons per year. The permittee has elected to take further restrictions and proposes to limit the potential emissions of each hazardous air pollutant regulated by the Clean Air Act to less than 8 tons per year and the potential emissions of all hazardous air pollutants regulated by the Clean Air Act combined to less than 20 tons per year.

Please refer to the Cooperative Agreement and its supporting documentation for more information regarding the variances granted under that pilot program.

EARLY HAZARDOUS POLLUTANT EMISSION REDUCTION OPTION

not applicable

AIR QUALITY REVIEW

The facility is located in an area designated as attainment/unclassified for all criteria pollutants. An air dispersion analysis of the stack emissions was performed by Jeff Simms of the Bureau of Air Management. The results of this analysis are summarized in a memo dated April 16, 2003. The following table summarizes the results of this analysis. These results indicate that national ambient air quality standards (NAAQSs) are expected to be attained and maintained assuming the emission rates, stack parameters and the background pollutant concentrations provided in Sims's memo.

NAAQS Analysis Results (All Concentrations in $\mu\text{g}/\text{m}^3$)					
Pollutant	Facility Impact	Background	Total Concentration	NAAQS or AAC	% NAAQS or % AAC
TSP - 24 hr	75.3	41.8	117.1	150.0	78.1
PM ₁₀ - 24 hr	75.3	29.8	105.1	150.0	70.1
PM ₁₀ - Annual	20.5	9.8	30.3	50.0	60.6
SO ₂ - 3 hr	0.91	137.1	138.0	1300.0	10.6
SO ₂ - 24 hr	0.36	35.2	35.6	365.0	9.7
SO ₂ - Annual	0.078	7.9	7.97	80.0	9.9
CO - 1 hr	239.3	3188.0	3427.3	40,000	8.6
CO - 8 hr	73.2	890.4	963.6	10,000	9.6
NO _x - Annual	11.5	4.7	16.2	100.0	16.2
2-butoxyethanol 24-hr	935.5	--	935.5	2880	32.5
n-butanol 1-hr	3144	--	3144	15000	20.9
cyclohexanone 24-hr	125.6	--	125.6	2400	5.2
diisobutyl-ketone	226.0	--	226.0	6000	3.7

24-hr					
isophorone 1-hr	17.5	--	17.5	2500	0.7
toluene 24-hr	227.2	--	227.2	9000	2.5

FACILITY EMISSIONS

Actual emissions are the total emissions generated by the emission sources identified below over the specified time period taking into account any reductions made by a control device or technique. Maximum theoretical emissions are the quantity of air contaminants that theoretically could be emitted by the emissions sources identified below, without considering emission control devices, based on the design capacity of the source. Potential to emit is the maximum capacity of the emission sources identified below to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air contaminant shall be treated as part of its design if the limitation is Federally enforceable.

A. STACK EMISSIONS

1. B20, Stack S10 - Natural Gas/Propane Boiler Rated at 10.5 mmBtu/hr - Installed 1977

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate matter emissions	0.08	0.35	0.08	0.35	1.58	6.90
Sulfur Dioxide	0.006	0.026	0.006	0.026	0.006	0.026
Nitrogen oxides	2.17	9.50	2.17	9.50	2.17	9.50
Carbon Monoxide	0.88	3.86	0.88	3.86	0.88	3.86
VOCs	0.06	0.25	0.06	0.25	0.06	0.25

2. B21, Stack S10 - Natural Gas/Propane Boiler Rated at 10.5 mmBtu/hr - Installed 1977

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate matter emissions	0.08	0.35	0.08	0.35	1.58	6.90
Sulfur Dioxide	0.006	0.026	0.006	0.026	0.006	0.026
Nitrogen oxides	2.17	9.50	2.17	9.50	2.17	9.50
Carbon Monoxide	0.88	3.86	0.88	3.86	0.88	3.86
VOCs	0.06	0.25	0.06	0.25	0.06	0.25

3. P77, Stack S17 - Miscellaneous Facility Wide Cleanup

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Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
VOCs	110.6	198.0	110.6	#	110.6	198.0

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P77

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
2-butoxyethanol *	1.49	6.53	1.49	6.53
cyclohexanone *	0.37	1.62	0.37	1.62
DIBK *	1.15	5.04	1.15	5.04
Glycol ethers	1.57	6.88	1.57	6.88
isophorone	0.68	2.98	0.68	2.98
methanol	0.25	1.10	0.25	1.10
MIBK	0.03	0.13	0.03	0.13
Mineral spirits *	6.48	28.38	6.48	28.38
toluene	6.48	28.38	6.48	##
xylene	0.13	0.57	0.13	0.57

4. P18, Stack S18 - Five lithographic presses each with an associated UV curing oven (PLO-WS-18, PLO-WS-19, PLO-WS-20, PLO-WS-21, and PLO-WS-22) - 2 installed in 1990, 2 installed in 1996 and 1 installed in 1997

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
VOCs	7.58	33.20	7.58	33.20	7.58	33.20

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P18

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
Glycol ethers	1.75	7.67	1.75	7.67

5. P108, Stack S108 - Four Spraybooths (PSB-WS-108, PSB-WS-109, PSB-WS-110, and PSB-WS-111) with one natural gas/propane drying oven SDO-WS-112 rated at 1.2 mmBtu per hour and one electric drying oven

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate Matter Emissions	16.89	73.97	0.23	1.01	0.23	1.01
Sulfur Dioxide	0.0005	0.0022	0.0005	0.0022	0.0005	0.0022

Nitrogen Oxides	0.25	1.09	0.25	1.09	0.25	1.09
Carbon Monoxide	0.1	0.44	0.1	0.44	0.1	0.44
VOCs	49.60	217.25	49.60	#	49.60	217.25

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P108

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
n-butanol *	8.88	38.89	8.88	38.89
2-butoxyethanol *	7.60	33.29	7.60	33.29
carbon black *	4.0	17.52	0.2	17.52
diacetone alcohol *	4.56	19.97	4.56	19.97
DIBK *	14.00	61.32	14.00	61.32
ethyl benzene	3.28	14.37	3.28	##
formaldehyde	0.08	0.35	0.08	##
glycol ethers	7.60	33.29	7.60	##
isobutyl alcohol *	1.60	7.01	1.60	7.01
methanol	3.92	17.17	3.92	##
MEK	14.72	64.47	14.72	##
MIBK	8.48	37.14	8.48	##
methyl n-amyl ketone *	5.12	22.43	5.12	22.43
mineral spirits *	2.80	12.26	2.80	12.26
toluene	16.00	70.08	16.00	##
triethylamine	3.60	15.77	3.60	##
xylene	13.84	60.62	13.84	##

6. P113, Stack S113 - Four Spraybooths (PSB-WS-113, PSB-WS-114, PSB-WS-115, and PSB-WS-116) with one natural gas/propane drying oven SDO-WS-117 rated at 1.2 mmBtu per hour

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate Matter Emissions	25.33	110.94	0.36	1.49	0.36	1.49
Sulfur Dioxide	0.0007	0.0032	0.0007	0.0032	0.0007	0.0032
Nitrogen Oxides	0.25	1.09	0.25	1.09	0.25	1.09

Carbon Monoxide	0.10	0.44	0.10	0.44	0.10	0.44
VOCs	74.40	325.87	74.40	#	74.40	325.87

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P113

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
n-butanol *	13.32	58.34	13.32	58.34
2-butoxyethanol *	11.40	49.93	11.40	49.93
carbon black *	6.00	26.28	0.30	26.28
diacetone alcohol *	6.84	29.96	6.84	29.96
DIBK *	21.00	91.98	21.00	91.98
ethyl benzene	4.92	21.55	4.92	##
formaldehyde	0.12	0.53	0.12	##
glycol ethers	11.40	49.93	11.40	##
isobutyl alcohol *	2.40	10.51	2.40	10.51
methanol	5.88	25.75	5.88	##
MEK	22.08	96.71	22.08	##
MIBK	12.72	55.71	12.72	##
methyl n-amyl ketone *	7.68	33.64	7.68	33.64
mineral spirits *	4.20	18.40	4.20	18.40
toluene	24.00	105.12	24.00	##
triethylamine	5.40	23.65	5.40	##
xylene	20.76	90.93	20.76	##

7. P38, Stack S38 - Two Screening Machines using the drying oven associated with P28 - Installed 1998

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
VOCs	36.85	161.39	36.85	#	36.85	161.39

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P38

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
n-butanol *	1.56	6.83	1.56	6.83
2-butoxyethanol *	9.80	42.92	9.80	42.92
cyclohexanone *	8.12	35.57	8.12	35.57
diacetone alcohol *	2.48	10.86	2.48	10.86
ethyl benzene	0.83	3.64	0.83	3.64
Glycol ethers	12.65	55.41	12.65	##
mineral spirits *	1.56	6.83	1.56	6.83
naphthalene	0.62	2.72	0.62	2.72
trimethyl benzene *	1.20	5.26	1.20	5.26
xylene	3.29	14.41	3.29	##

8. P28, Stack S28 - Two Screening Machines with a natural gas/propane fired drying oven rated at 3.5 mmBtu/hr - Installed 1997

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate Matter Emissions	0.03	0.12	0.03	0.12	0.53	2.30
Sulfur Dioxide	0.002	0.009	0.002	0.009	0.002	0.009
Nitrogen Oxides	0.72	3.17	0.72	3.17	0.72	3.17
Carbon Monoxide	0.29	1.29	0.29	1.29	0.29	1.29
VOCs	24.17	105.86	24.17	51.86	24.17	105.86

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P28

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
n-butanol *	2.38	10.42	2.38	10.42
2-butoxyethanol *	14.91	65.31	14.91	65.31
cyclohexanone *	10.92	47.83	10.92	47.83
diacetone alcohol *	3.08	13.49	3.08	13.49
ethyl benzene	1.26	5.52	1.26	5.52
Glycol ethers	19.25	84.32	19.25	##

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
mineral spirits *	0.91	3.99	0.91	3.99
naphthalene	0.95	4.16	0.95	4.16
xylene	5.01	21.94	5.01	##

10. P29, Stack S29 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.75 mmBtu/hr - Installed 1995

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate Matter Emissions	0.04	0.18	0.04	0.18	0.79	3.45
Sulfur Dioxide	0.003	0.014	0.003	0.014	0.003	0.014
Nitrogen Oxides	1.08	4.75	1.08	4.75	1.08	4.75
Carbon Monoxide	0.44	1.93	0.44	1.93	0.44	1.93
VOCs	34.43	150.73	34.43	#	34.43	150.73

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P29

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
n-butanol *	0.93	4.07	0.93	4.07
2-butoxyethanol *	6.20	27.16	6.20	27.16
cyclohexanone *	11.28	49.41	11.28	49.41
diacetone alcohol *	3.30	14.45	3.30	14.45
DIBK *	2.56	11.21	2.56	11.21
ethyl benzene	6.72	29.43	6.72	##
glycol ethers	10.00	43.8	10.00	##
isophorone	4.92	21.55	4.92	##
Isophorone diisocyanate	0.001	0.0044	0.001	0.004
methylene bis (4-cyclohexylisocyanate) *	0.005	0.022	0.005	0.022
MEK	26.16	114.58	26.16	##
MIBK	2.00	8.76	2.00	##

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
naphthalene	0.36	1.58	0.36	1.58
toluene	9.39	41.13	9.39	##
trimethyl benzene *	3.44	15.07	3.44	15.07
xylene	22.16	97.06	22.16	##

11. P37, Stack S37 - Two Roll Coaters with a natural gas/propane fired drying oven rated at 4.5 mmBtu/hr - Installed 1995

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate Matter Emissions	0.34	0.15	0.34	0.15	0.68	2.96
Sulfur Dioxide	0.003	0.012	0.003	0.012	0.003	0.012
Nitrogen Oxides	0.93	4.07	0.93	4.07	0.93	4.07
Carbon Monoxide	0.38	1.66	0.38	1.66	0.38	1.66
VOCs	34.43	150.71	34.43	#	34.43	150.71

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P37

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
n-butanol *	0.93	4.07	0.93	4.07
2 butoxyethanol *	6.20	27.16	6.20	27.16
cyclohexanone *	11.28	49.41	11.28	49.41
diacetone alcohol *	3.30	14.45	3.30	14.45
DIBK *	2.56	11.21	2.56	11.21
ethyl benzene	6.72	29.43	6.72	##
glycol ethers	10.00	43.8	10.00	##
isophorone	4.92	21.55	4.92	##
isophorone diisocyanate	0.001	0.004	0.001	0.004
methylene bis-(4 cyclohexylisocyanate) *	0.005	0.022	0.005	0.022
MEK	26.16	114.58	26.16	##

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
MIBK	2.00	8.76	2.00	##
naphthalene	0.36	1.58	0.36	1.58
toluene	9.39	41.13	9.39	##
trimethyl benzene *	3.44	15.06	3.44	15.06
xylene	22.16	97.06	22.16	##

12. P76, Stack S16 - One Roll Coater with a natural gas/propane fired drying oven rated at 2.25 mmBtu/hr - Installed 1998

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
Particulate Matter Emissions	0.046	0.20	0.046	0.20	0.90	3.94
Sulfur Dioxide	0.004	0.016	0.004	0.016	0.004	0.016
Nitrogen Oxides	1.24	5.43	1.24	5.43	1.24	5.43
Carbon Monoxide	0.50	2.21	0.50	2.21	0.50	2.21
VOCs	54.43	238.42	54.43	54.54	54.43	238.42

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P76

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
n-butanol *	4.56	19.97	4.56	19.97
cyclohexanone *	3.36	14.72	3.36	14.72
diacetone alcohol *	2.28	9.99	2.28	9.99
DIBK *	1.92	8.41	1.92	8.41
ethyl benzene	6.32	27.68	6.32	##
glycol ethers	44.64	195.52	44.64	##
MEK	27.52	120.54	27.52	##
MIBK	9.44	41.35	9.44	##
toluene	12.56	55.01	12.56	##
xylene	18.80	82.34	18.80	##

13. P70, Stack S15 - Sixteen Pad Printers (PPP-WS-44 through PPP-WS-47, PPP-WS-69 through PPP-WS-71, PPP-WS-98 through PPP-WS-102, and PPP-WS-118 through PPP-WS-121) - Installed 1989-1994

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
VOCs	10.4	45.55	10.4	45.55	10.4	45.55

HAZARDOUS AIR POLLUTANT EMISSIONS FROM P70

Pollutant	Maximum Theoretical		Potential to Emit	
	lbs/hr	TPY	lbs/hr	TPY
cyclohexanone *	4.86	21.29	4.86	21.29
diacetone alcohol *	2.35	10.29	2.35	10.29
Glycol ethers	4.30	18.83	4.30	##
xylene	0.70	3.07	0.70	3.07

14. Process P149, Stack S29 - One Roll Coating Machines which uses natural gas/propane oven associated with P29

Pollutant	Maximum Theoretical		Potential to Emit		Maximum Allowables	
	lbs/hr	TPY	lbs/hr	TPY	lbs/hr	TPY
VOCs	21.50	94.17	21.50	#	21.50	94.17

I. Process P56, Stack S56, Control Device C56 - Two Spray Booths PSB-WS-56 and PSB-WS-58 with natural gas fired oven SDO-WS-50

Pollutant	Maximum Theoretical Emissions		Potential to Emit		Maximum Allowable Emissions	
	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)
Particulate matter	5.95	26.06	0.45	1.97	1.70	7.45
Nitrogen oxides	0.04	0.18	0.04	0.18	0.04	0.18
Carbon monoxide	0.03	0.15	0.03	0.15	0.03	0.15
VOCs	13.60	59.57	13.60	#	13.60	59.57
n-butanol	2.76	12.08	2.76	9.9	2.76	9.9
2-butoxyethanol	1.75	7.65	1.75	7.65	1.75	7.65
carbon black	0.23	1.02	0.011	0.05	0.011	0.05
diacetone alcohol	2.67	11.68	2.67	9.9	2.67	9.9
diisobutyl ketone	2.18	9.55	2.18	9.55	2.18	9.55
ethyl benzene	2.80	12.27	2.80	9.9	2.80	9.9

formaldehyde	0.02	0.08	0.02	0.08	0.02	0.08
glycol ethers	3.29	14.41	3.29	9.9	3.29	9.9
MEK	3.85	16.86	3.85	9.9	3.85	9.9
methanol	1.69	7.42	1.69	7.42	1.69	7.42
MIBK	2.33	10.22	2.33	9.9	2.33	9.9
stoddard solvent	1.39	6.07	1.39	6.07	1.39	6.07
toluene	3.36	14.72	3.36	9.9	3.36	9.9
triethylamine	0.37	1.60	0.37	1.60	0.37	1.60
xylene	11.05	48.39	11.05	9.9	11.05	9.9

II. Process P134, Stack S134, Control Device C134 - Four Spray Booths PSB-WS-134, PSB-WS-135, PSB-WS-136, and PSB-WS-137 with electric oven SDO-WS-138

Pollutant	Maximum Theoretical Emissions		Potential to Emit		Maximum Allowable Emissions	
	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)
Particulate matter	6.02	26.35	0.45	1.97	1.70	7.45
VOCs	7.50	32.85	7.50	#	7.50	32.85
2-butoxyethanol	2.23	9.79	2.23	9.79	2.23	9.79
glycol ethers	2.51	11.01	2.51	9.9	2.51	9.9

III. Process P139, Stack S139, Control Device C139 - Four Spray Booths PSB-WS-139, PSB-WS-140, PSB-WS-141 and PSB-WS-142 with two electric ovens SDO-WS-143 and SDO-WS-144

Pollutant	Maximum Theoretical Emissions		Potential to Emit		Maximum Allowable Emissions	
	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)
Particulate matter	6.36	27.86	0.45	1.97	1.32	5.80
VOCs	20.4	89.35	20.4	#	20.4	89.35
n-butanol	4.14	18.12	4.14	9.9	4.14	9.9
2-butoxyethanol	2.62	11.48	2.62	9.9	2.62	9.9
carbon black	0.35	1.54	0.018	0.08	0.018	0.08
diacetone alcohol	4.0	17.51	4.0	9.9	4.0	9.9
diisobutyl ketone	3.27	14.33	3.27	9.9	3.27	9.9
ethyl benzene	4.20	18.40	4.20	9.9	4.20	9.9
glycol ethers	1.32	5.76	1.32	5.76	1.32	5.76
MEK	3.98	17.42	3.98	9.9	3.98	9.9
methanol	0.53	2.32	0.53	2.32	0.53	2.32
MIBK	3.50	15.32	3.50	9.9	3.50	9.9
stoddard solvent	1.33	5.81	1.33	5.81	1.33	5.81

toluene	5.04	22.08	5.04	9.9	5.04	9.9
xylene	16.57	72.58	16.57	9.9	16.57	9.9

IV. Process P145, Stack S145, Control Device C145 - One Spray Booth PSB-WS-145 with natural gas/propane fired oven SDO-WS-146

Pollutant	Maximum Theoretical Emissions		Potential to Emit		Maximum Allowable Emissions	
	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)
Particulate matter	20.05	87.82	1.45	6.35	3.59	15.72
Nitrogen oxides	0.17	0.72	0.17	0.72	0.17	0.72
Carbon monoxide	0.07	0.29	0.07	0.29	0.07	0.29
VOCs	31.0	135.78	31.0	#	31.0	135.78
carbon black	1.14	4.98	0.057	0.25	0.057	0.25
diisobutyl ketone	1.55	6.80	1.55	6.80	1.55	6.80
glycol ethers	2.33	10.18	2.33	9.9	2.33	9.9
MEK	8.38	63.71	8.38	9.9	8.38	9.9
toluene	6.73	29.48	6.73	9.9	6.73	9.9
xylene	0.40	1.73	0.40	1.73	0.40	1.73

V. Process P147, Stack S147, Control Device C147 - Two Screening Machines which use existing ovens associated with P76

Pollutant	Maximum Theoretical Emissions		Potential to Emit		Maximum Allowable Emissions	
	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)	(lbs/hr)	(TPY)
VOCs	15.87	69.51	15.87	#	15.87	69.51
Nitrogen oxides	0.08	0.36	0.08	0.36	0.08	0.36
Carbon monoxide	0.034	0.15	0.034	0.15	0.034	0.15
n-butanol	1.56	6.82	1.56	6.82	1.56	6.82
2-butoxyethanol	9.79	42.87	9.79	9.9	9.79	9.9
cyclohexanone	8.11	35.52	8.11	9.9	8.11	9.9
diacetone alcohol	2.47	10.83	2.47	9.9	2.47	9.9
dibutyl phthalate	0.82	3.58	0.82	3.58	0.82	3.58
ethyl benzene	0.82	3.59	0.82	3.59	0.82	3.59
glycol ethers	12.58	55.12	12.58	9.9	12.58	9.9
methylene bis4-cyclohexylisocyanate	0.00041	0.0018	0.0004	0.0018	0.00041	0.0018
naphthalene	0.61	2.69	0.61	2.69	0.61	2.69
stoddard solvent	1.56	6.85	1.56	6.85	1.56	6.85

trimethyl benzene	1.2	5.26	1.2	5.26	1.2	5.26
xylene	3.28	14.38	3.28	9.9	3.28	9.9

B. FACILITY EMISSIONS

Pollutant	Maximum Theoretical Emissions	Potential to Emit Under Title V Operation Permit	Maximum Allowable Emissions	Potential to Emit Under the Cooperative Agreement
	TPY	TPY	TPY	TPY
Particulate Matter Emissions	354.35	16.11	65.37	16.11
Sulfur Dioxide	0.11	0.11	0.11	0.11
Nitrogen Oxides	39.86	39.86	39.86	39.86
Carbon Monoxide	16.28	16.28	16.28	16.28
VOCs	2108.85	99.0	2108.85	85.0
Total CAA HAPs		24.9		20.0

Total HAPs Emitted from Stacks Taller Than or Equal to 25 Feet
(Excludes Stacks S15, S17, S18, S56)

Hazardous Air Pollutant	Potential to Emit		NR 445, Wis. Adm. Code Threshold Value (stacks ≥25 ft)	Units	PTE greater than Table Value?
	(lbs/hr)	(tpy)			
2-butoxyethanol*	68.52	##	41.95200	lbs/hr	yes
n-butyl alcohol*	38.26	##	29.47200	lbs/hr	yes
carbon black*	0.59	##	1.200000	lbs/hr	no
cyclohexanone*	53.07	##	34.96800	lbs/hr	yes
diacetone alcohol*	32.31	##	83.928000	lbs/hr	no
diisobutyl ketone*	46.86	##	30.429000	lbs/hr	yes
ethyl benzene	35.07	##	152.136000	lbs/hr	no
		153.61	456.320000	tpy	no
formaldehyde	0.2	0.124	0.1250	tpy	no
glycol ethers	134.28	##	na		
isobutyl alcohol*	4.0	##	52.46400	lbs/hr	no

Total HAPs Emitted from Stacks Taller Than or Equal to 25 Feet
(Excludes Stacks S15, S17, S18, S56)

Hazardous Air Pollutant	Potential to Emit		NR 445, Wis. Adm. Code Threshold Value (stacks ≥25 ft)		PTE greater than Table Value?
	(lbs/hr)	(tpy)		Units	
isophorone	9.84	##	4.89600	lbs/hr	yes
isophorone diisocyanate*	0.002	##	0.03120	lbs/hr	no
methylene bis4-cyclohexylisocyanate*	0.0104	##	0.01846	lbs/hr	no
MEK	129.0	##	na		
methanol	10.33	##	na		
MIBK	38.14	##	71.6880	lbs/hr	no
methyl n-amyl ketone*	12.8	##	82.200000	lbs/hr	no
naphthalene	2.9	##	17.472000	lbs/hr	no
stoddard solvent*	12.36	##	183.6240	lbs/hr	no
toluene	83.11	##	131.1600	lbs/hr	no
		364.02	182.5300	tpy	yes
triethylamine	9.0	##	na		
trimethyl benzene*	9.28	##	43.70400	lbs/hr	no
xylene	126.27	##	152.13600	lbs/hr	no
Total HAPS regulated by the CAA		##			

Total HAPs Emitted from Stacks Shorter Than 25 Feet (S18, S56)

Hazardous Air Pollutant	Potential to Emit		NR 445, Wis. Adm. Code Threshold Value (stacks <25 ft)		PTE greater than Table Value?
	(lbs/hr)	(tpy)		Units	
2-butoxyethanol*	1.75	##	9.99360	lbs/hr	no
n-butyl alcohol*	2.76	##	7.59600	lbs/hr	no
carbon black*	0.23	##	0.29040	lbs/hr	no
diacetone alcohol*	2.67	##	19.987200	lbs/hr	no
diisobutyl ketone*	2.18	##	7.245000	lbs/hr	no
ethyl benzene	2.80	##	36.228000	lbs/hr	no
		12.26	105.200000	tpy	no

Total HAPs Emitted from Stacks Shorter Than 25 Feet (S18, S56)

Hazardous Air Pollutant	Potential to Emit		NR 445, Wis. Adm. Code Threshold Value (stacks <25 ft)	Units	PTE greater than Table Value?
	(lbs/hr)	(tpy)			
formaldehyde	0.02	0.088	0.1250	tpy	no
glycol ethers	5.04	##	na		
MEK	3.85	##	na		
methanol	1.69	##	na		
MIBK	2.33	##	17.0736	lbs/hr	no
stoddard solvent*	1.39	##	43.7232	lbs/hr	no
toluene	3.36	##	31.2312	lbs/hr	no
		14.72	42.1000	tpy	no
trimethyl benzene*	0.37	##	10.41120	lbs/hr	no
xylene	11.05	##	36.22800	lbs/hr	no
Total HAPS regulated by the CAA		##			

Total HAPs Emitted from Indoor Fugitive Emission Sources (S15, S17)

Hazardous Air Pollutant	Potential to Emit		NR 445, Wis. Adm. Code Threshold Value (stacks <25 ft)	Units	PTE greater than Table Value?
	(lbs/hr)	(tpy)			
2-butoxyethanol*	1.49	##	na		
cyclohexanone*	5.23	##	na		
diacetone alcohol*	2.35	##	na		
diisobutyl ketone*	1.15	##	na		
glycol ethers	5.87	##	na		
isophorone	0.68	##	na		
methanol	0.25	##	na		
MIBK	0.03	##	na		
mineral spirits*	6.48	##	na		
toluene	6.48	##	na		
xylene	0.83	##	na		

Total HAPs Emitted from Indoor Fugitive Emission Sources (S15, S17)					
Hazardous Air Pollutant	Potential to Emit		NR 445, Wis. Adm. Code Threshold Value (stacks <25 ft)	Units	PTE greater than Table Value?
	(lbs/hr)	(tpy)			
Total HAPS regulated by the CAA		##			

HAP = hazardous air pollutant

CAA = Clean Air Act

na = not applicable

* denotes state-only HAPs

The permittee has elected restrictions to limit the potential VOC emissions from the facility to not more than 85 tons per year while operating under the Cooperative Agreement and to less than 100 tons per year otherwise. See total facility emissions summarized above. These more restrictive limitations would be included in any Operation Permit issued by the Department. Note: VOC emissions from use of materials containing VOCs will be limited to 85 tons per year. The additional 2.8 tons of VOCs per year are from combustion of natural gas and propane at the facility

The permittee has elected restrictions to limit the potential emissions of all HAPs regulated by the Clean Air Act to less than 20 tons per year while operating under the Cooperative Agreement and to less than 25 tons per year otherwise. The permittee has elected restrictions to limit the potential emissions of each HAP regulated by the Clean Air Act to less than 8 tons per year while operating under the Cooperative Agreement and to less than 10 tons per year otherwise. These more restrictive limitations would be included in any Operation Permit issued by the Department.

FACILITY STATUS UNDER PART 70

The facility is located in an area designated as attainment/unclassified for all criteria pollutants. The facility would be considered a synthetic minor, non-part 70 source because the permittee elected limitations to restrict the potential emissions of volatile organic compounds to less than the major source threshold of 100 tons per year. The potential emissions of each other criteria pollutant are less than the major source threshold level of 100 tons per year.

Additionally, the permittee elected limitations to restrict the potential emissions of each hazardous air pollutant regulated by the Clean Air Act to less than 10 tons per year and the potential emissions of all hazardous air pollutants regulated by the Clean Air Act combined to less than 25 tons per year.

Note: The permittee has elected to restrict the potential emissions of volatile organic compounds to not more than 85 tons per year while operating under a Cooperative Agreement with the Department. Additionally, the permittee elected to restrict the potential emissions of each hazardous air pollutant regulated by the Clean Air Act to not more than 8 tons per year and the potential emissions of all hazardous air pollutants regulated by the Clean Air Act combined to not more than 20 tons per year, while operating under a Cooperative Agreement with the Department.

COMPLIANCE DEMONSTRATION MONITORING METHODS

For details on specific compliance demonstration methods, please refer to the Draft Operation Permit.

Natural Gas/Propane Boilers B20 and B21: To demonstrate compliance with particulate matter and visible emission limitations the permittee would be required to retain plans and specifications of each boiler that indicate they are designed to only burn natural gas and propane. This is an adequate compliance demonstration method because the more restrictive emission limitation is equivalent to the maximum theoretical emissions while firing these fuels. Additionally, it is not expected that visible emission limitations would be exceeded while firing natural gas and propane. Please see the Draft Permit for specific compliance demonstration methods.

Sixteen Pad Printers P70: To demonstrate compliance with the LACT VOC content limitations the permittee would be required to keep records of each ink and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. Please see the Draft Permit for specific compliance demonstration methods.

One Roll Coater with a natural gas/propane fired drying oven P76: To demonstrate compliance with particulate matter and visible emission limitations the permittee would be required to retain plans and specifications of each curing oven

that indicate they are designed to only burn natural gas and propane. This is an adequate compliance demonstration method because the emission limitation is equal to the maximum theoretical emissions while firing these fuels. Additionally, because natural gas and propane are clean burning fuels it is not expected that the visible emission limitations would be exceeded while firing them.

To demonstrate compliance with the LACT VOC content limitations the permittee would be required to keep records of each ink and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. To demonstrate compliance with the LACT monthly VOC emission limitation the permittee would be required to calculate and record the total monthly volatile organic compound emissions from process P76 within 15 calendar days of the end of the month.

To demonstrate compliance with the RACT VOC content limitations the permittee would be required to use low VOC content coatings and keep records of each coating and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. Please see the Draft Permit for specific compliance demonstration methods.

Five Lithographic Presses each with an UV Ovens P18: To demonstrate compliance with the LACT requirement to use only UV curable inks the permittee would be required to maintain the line speed through the oven at a minimum of 40 feet per minute and monitor and record the line speed once per shift. Note: In order to use heat set inks on this line the line speed through the oven would need to be considerably slower. Please see the Draft Permit for specific compliance demonstration methods.

Two Screening Machines with natural gas/propane drying oven P28: To demonstrate compliance with particulate matter and visible emission limitations the permittee would be required to retain plans and specifications of each curing oven that indicate they are designed to only burn natural gas and propane. This is an adequate compliance demonstration method because the emission limitation is equal to the maximum theoretical emissions while firing these fuels. Additionally, because natural gas and propane are clean burning fuels it is not expected that the visible emission limitations would be exceeded while firing them.

To demonstrate compliance with the LACT VOC content limitations the permittee would be required to keep records of each ink and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. To demonstrate compliance with the LACT monthly VOC emission limitation the permittee would be required to calculate and record the total monthly volatile organic compound emissions from process P28 within 15 calendar days of the end of the month. Please see the Draft Permit for specific compliance demonstration methods.

Two Roll Coaters with a natural gas or LP fired drying oven P29: To demonstrate compliance with particulate matter and visible emission limitations the permittee would be required to retain plans and specifications of each curing oven that indicate they are designed to only burn natural gas and propane. This is an adequate compliance demonstration method because the emission limitation is equal to the maximum theoretical emissions while firing these fuels. Additionally, because natural gas and propane are clean burning fuels it is not expected that the visible emission limitations would be exceeded while firing them.

To demonstrate compliance with the RACT VOC content limitations the permittee shall use one or more of the following: (1) Use low VOC content coatings and keep records of each coating and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. (2) Operate a thermal oxidizer that destroys at least 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the oxidizer. The permittee would be required to operate the oxidizer at a temperature which was shown to demonstrate compliance during the last stack test and would be required to monitor and record the temperature continuously. They would be required to calculate and record the allowable and actual emissions daily. (3) Use in-line averaging to achieve compliance through a daily volume-weighted average of all coatings applied. The permittee would be required to calculate and record the daily volume-weighted average VOC content. Please see the Draft Permit for specific compliance demonstration methods.

Two Roll Coaters with a natural gas/propane fired drying oven P37: To demonstrate compliance with particulate matter and visible emission limitations the permittee would be required to retain plans and specifications of each curing oven that indicate they are designed to only burn natural gas and propane. This is an adequate compliance demonstration method because the emission limitation is equal to the maximum theoretical emissions while firing these fuels. Additionally, because natural gas and propane are clean burning fuels it is not expected that the visible emission limitations would be exceeded while firing them.

To demonstrate compliance with the RACT VOC content limitations the permittee would shall use one or more of the following: (1) Use low VOC content coatings and keep records of each coating and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. (2) Operate a thermal oxidizer that destroys at least 90% of the nonmethane VOCs (VOC measured as total combustible carbon) which enter the oxidizer. The permittee would be required to operate the oxidizer at a temperature which was shown to demonstrate compliance during the last stack test and would be required to monitor and record the temperature continuously. They would be required to calculate and record the allowable and actual emissions daily. (3) Use in-line averaging to achieve compliance through a daily volume-weighted average of all coatings applied. The permittee would be required to calculate and record the daily volume-weighted average VOC content. Please see the Draft Permit for specific compliance demonstration methods.

Two Screening Machines which use the drying oven associated with P28, P38: To demonstrate compliance with the LACT VOC content limitations the permittee would be required to keep records of each ink and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. To demonstrate compliance with the LACT monthly VOC emission limitation the permittee would be required to calculate and record the total monthly volatile organic compound emissions from process P38 within 15 calendar days of the end of the month. Please see the Draft Permit for specific compliance demonstration methods.

Four Plastic Parts Spray Booths with One Electric and One Natural Gas/Propane Drying Oven, P108: To demonstrate compliance with particulate matter and visible emission limitations the permittee would be required to operate a paint over spray filter system on the spray booth and maintain the pressure drop across the over spray filter system within normal operating ranges whenever the process is in operation. The permittee would be required to monitor and record the pressure drop across each over spray filter system once every 8 hours of operation or once per day, whichever yields the greater number of measurements.

To demonstrate compliance with the LACT VOC content limitations the permittee would be required to keep records of each ink and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. To demonstrate compliance with the LACT requirement to use HVLP spray techniques for parts that warrant such use the permittee would be required to monitor and record the pressure drop of the HVLP equipment whenever it is in use and keep an inventory of the parts sprayed and the technique used to spray them. Please see the Draft Permit for specific compliance demonstration methods.

Four Plastic Parts Spray Booths with One Natural Gas/Propane Drying Oven, P113: To demonstrate compliance with particulate matter and visible emission limitations the permittee would be required to operate a paint over spray filter system on the spray booth and maintain the pressure drop across the over spray filter system within normal operating ranges whenever the process is in operation. The permittee would be required to monitor and record the pressure drop across each over spray filter system once every 8 hours of operation or once per day, whichever yields the greater number of measurements.

To demonstrate compliance with the LACT VOC content limitations the permittee would be required to keep records of each ink and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. To demonstrate compliance with the LACT requirement to use HVLP spray techniques for parts that warrant such use the permittee would be required to monitor and record the pressure drop of the HVLP equipment whenever it is in use and keep an inventory of the parts sprayed and the technique used to spray them. Please see the Draft Permit for specific compliance demonstration methods.

Two Modified Plastic Parts Spray Booths with One Natural Gas Drying Oven, P56; Four Plastic Parts Spray Booths with One Electric Drying Oven, P134; Four Plastic Parts Spray Booths with Two Electric Drying Ovens, P139; One Plastic Parts Spray Booths with One Natural Gas/Propane Drying Oven, P145: To demonstrate compliance with the latest available control techniques and operating practices for volatile organic compound emissions the permittee would be required to keep a copy of the required environmental management system at the facility and make it available to authorized Department representatives upon request. The permittee would also be required to keep records of their evaluation of significant environmental impacts, objectives and targets for improving environmental performance as related to volatile organic compound emissions, programs implemented to meet the objectives and targets related to volatile organic compound emissions, and the progress made in reaching specified objectives and targets related to volatile organic compound emissions. To demonstrate compliance with visible and particulate matter emissions limitations the permittee would be required to operate an overspray filter and maintain the pressure drop across the filters within the normal operating range whenever each of the spray booths is in operation. The permittee would be required to record the pressure drop across the overspray filter once per day or once every eight hours of operation whichever provides the most readings.

Two Screening Machines which use existing drying ovens, P147: To demonstrate compliance with the latest available control techniques and operating practices for volatile organic compound emissions the permittee would be required to keep a copy of the required environmental management system at the facility and make it available to authorized Department representatives upon request. The permittee would also be required to keep records of their evaluation of significant environmental impacts, objectives and targets for improving environmental performance as related to volatile organic compound emissions, programs implemented to meet the objectives and targets related to volatile organic compound emissions, and the progress made in reaching specified objectives and targets related to volatile organic compound emissions. To demonstrate compliance with visible emission limitations the permittee would be required to power the drying oven with only electricity, natural gas, or propane. Because natural gas and propane are clean burning fuels, limiting the type of fuel used should be adequate to ensure the visible emission limitation is met.

One Roll Coating Machine which uses an existing drying oven included under P29, P149: To demonstrate compliance with the RACT VOC content limitations the permittee would be required to use low VOC content coatings and keep records of each coating and other VOC containing material used and the VOC content as applied. The permittee would be required to use U.S. EPA Method 24, or coating manufacturer's formulation data to determine the VOC content of the materials used. Please see the Draft Permit for specific compliance demonstration methods.

Synthetic Minor Restrictions: To demonstrate compliance with the monthly limitation on VOC emissions from the entire facility the permittee would be required to calculate and record the daily VOC emissions from the facility and calculate and record the monthly VOC emissions from the facility averaged over each 12 consecutive month period. To demonstrate compliance with the monthly limitation on each Clean Air Act HAP emitted from the entire facility the permittee would be required to calculate and record the daily facility wide emissions of each Clean Air Act HAP and calculate and record the monthly facility wide emissions of each Clean Air Act HAP averaged over each 12 consecutive month period. To demonstrate compliance with the monthly limitation on total Clean Air Act HAPs emitted from the entire facility the permittee would be required to calculate and record the total daily facility wide emissions of Clean Air Act HAPs and calculate and record the total monthly facility wide emissions of Clean Air Act HAPs averaged over each 12 consecutive month period. To demonstrate compliance with the monthly limitation on formaldehyde emissions from the entire facility the permittee would be required to calculate and record the daily formaldehyde emissions from the facility and calculate and record the monthly formaldehyde emissions from the facility averaged over each 12 consecutive month period. Please see the Draft Permit for specific compliance demonstration methods.

Facility Requirements: The facility would be required to submit annual compliance monitoring and annual compliance certification reports to the Department. These reports would summarize the compliance monitoring data required by any permit issued by the Department and certify the compliance status of the facility throughout the calendar year. The compliance monitoring and compliance certification reports would be required within 30 days of the end of the reporting period.

Compliance Demonstration Under Cooperative Agreement: For specific compliance demonstration requirements, please refer to the Draft Operation Permit. To demonstrate compliance with the facility wide limitation on VOC emissions, the permittee would be required to calculate and record the total VOC emissions from the facility each

month and calculate and record the monthly VOC emissions averaged over each 12 consecutive month period. The permittee would be required to use U.S. EPA Method 24, or manufacturer's formulation data to determine the VOC content and density of the materials used. The permittee would be required to analyze the spent ink, coating, solvent and other VOC containing material recovered and shipped off site to determine the VOC content no less than each time there is a change to materials or process operations that may affect the waste stream or quarterly, which ever is most frequent. To demonstrate compliance with the facility wide limitation on emissions of each Clean Air Act HAP, the permittee would be required to calculate and record the facility total emissions of each Clean Air Act HAP each month and calculate and record the monthly emissions of each Clean Air Act HAP averaged over each 12 consecutive month period. To demonstrate compliance with the facility wide limitation on total emissions of all Clean Air Act HAPs, the permittee would be required to calculate and record the facility total emissions of all Clean Air Act HAPs each month and calculate and record the monthly emissions of all Clean Air Act HAPs averaged over each 12 consecutive month period. The permittee would be required to use manufacturer's formulation data to determine the HAP content and density of the materials used. The permittee would be required to analyze the spent ink, coating, solvent and other HAP containing material recovered and shipped off site to determine the HAP content no less than each time there is a change to materials or process operations that may affect the waste stream or quarterly, which ever is most frequent. Compliance demonstration methods for particulate matter, nitrogen oxide, formaldehyde and visible emissions would be the same as those listed in the portion of the permit that would apply if the Cooperative Agreement was not in effect.

FACILITY COMPLIANCE STATUS

The Department finds that:

1. The source will meet applicable emission limits and other requirements.
2. The source will not cause nor exacerbate a violation of an ambient air quality standard or ambient air increment.

PRELIMINARY DETERMINATION

The Wisconsin Department of Natural Resources has reviewed the permit application and other materials submitted by Northern Engraving Corporation - West Salem Division and hereby makes a preliminary determination that an operation permit may be issued with the following Draft Applicable Limits and Draft Permit Conditions.