ANALYSIS AND PRELIMINARY DETERMINATION FOR THE CONSTRUCTION PERMIT FOR THE PROPOSED CONSTRUCTION OF SEVERAL DRUM RECLAMATION EMISSION SOURCES

FOR
CLCM ST. FRANCIS,
LOCATED AT
3950 SOUTH PENNSYLVANIA AVENUE,
SAINT FRANCIS, MILWAUKEE COUNTY, WISCONSIN

Construction Permit No.: 14-RSG-142

Facility ID No.: 341158070

This review was performed by the Wisconsin Department of Natural Resources, Southeast Region Air Program, Sturtevant Service Center in accordance with Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code.

Reviewed by: Ruhun Goonewardena Date: 01/23/2015

Peer review conducted by: DHS Date: 01/23/2015

Preliminary Determination Approved by:	Signature	Date
Regional Supervisor or Central Office Designee:	DHS	01/23/2015
Stationary Source Modeling Team Leader:		
Compliance Engineer (reviewed/approved):		

cc: Michael R. Sloat - South Central Region Air Program, Reedsburg Area Office
Milwaukee Public Library, 814 W. Wisconsin Avenue, Milwaukee, WI 53233-2385

INTRODUCTION

Stationary sources that are not specifically exempt from the requirement to obtain a construction permit under s. 285.60(5), Wis. Stats. or ch. NR 406, Wis. Adm. Code may not commence construction, reconstruction, replacement, relocation or modification unless a construction permit for the project has been issued by the Department of Natural Resources' (DNR's) Air Management Program. Owners or operators subject to the construction permit requirements must submit a construction and operation permit application to the DNR. The application is reviewed following the provisions set forth in ss. 285.60 to 285.67, Wis. Stats. The criteria for permit issuance vary depending on whether the source is major or minor and whether the source is or proposed to be located in an attainment or nonattainment area.

Subject sources are to be reviewed with respect to the equipment and facility description provided in the application and for the resulting impact upon the air quality. The review ensures compliance with all applicable rules and statutory requirements. The preliminary determination will show why the source(s) should be approved, conditionally approved, or disapproved. It will encompass emission calculations and an air quality analysis using US EPA models, if applicable. Emissions from volatile organic compound (VOC) sources and small sources whose emissions are known to be insignificant are normally not modeled. As a precautionary note, the emission estimates are based on US EPA emission factors (AP-42) or theoretical data and can vary from actual stack test data.

A final decision on the construction permit will not be made until the public has had an opportunity to comment on the Department's analysis, preliminary determination and draft permit. The conditions proposed in the draft permit may be revised in any final permit issued based on comments received or further evaluation by the Department.

GENERAL APPLICATION INFORMATION

Owner/Operator: CLCM - St. Francis
3950 South Pennsylvania Avenue
Saint Francis, WI 53235

Responsible Official: Mark Furgason
Site Manager

Application Contact Person: Mark Furgason

Application Submitted By: Amy J. Litscher (Saga Environmental and Engineering, Inc.)

Application submittal date: August 11, 2014

Additional Information Submitted: August 14, 20, 22, 2014, September 8, 2014, December 5, 8, 22, 29, 2014, January 13, 2015

Date of Complete Application: October 23, 2014

PROJECT DESCRIPTION

The current Mid-America Steel Drum Company, Inc./ Kitzinger facility (FID No. 241063570) located in St. Francis, Milwaukee County, Wisconsin, consists of two sites (viz. Norwich Avenue site, Pennsylvania Avenue site). The applicant has informed us that the two sites, which are located on contiguous properties, will be split into two separate facilities. The Pennsylvania Avenue site will be known by the new facility name CLCM – St. Francis ('CLCM'). The department has assigned FID No. 341158070 to the CLCM facility. The Norwich Avenue site will retain the facility name Mid-America Steel Drum Company, Inc./Kitzinger and will continue to have the FID No. 241063570. Several emission sources will be removed from the Norwich Avenue site. Some of the emission sources to be removed from the Norwich Avenue site will be relocated to the CLCM facility in Pennsylvania Avenue. There will be several new sources added to the CLCM facility, apart from the sources to be transferred from the Norwich Avenue site.

The changes to units/processes included in current operation permit 241063570-P12 include:

Norwich Avenue Site

The Norwich Avenue Building will continue under the ownership of Mid-America Steel Drum Company.

The only remaining significant emission unit will be the Process Boiler (B20/S08). Shot Blasting (P31) and the associated baghouse (C11) will either be removed completely, or will be vented differently where all emissions will emit indoors and not through a stack. The natural gas-fired Closed Drum Drying Oven (P50C), Auto Exterior Drum Spray Booth (P32C), and natural gas-fired Curing Oven (P32B) will be relocated to the Pennsylvania Avenue site, which will operate as a separate facility (CLCM – St. Francis). All other Norwich Avenue site's emission units/operations will be removed.

Note: The permit application states that the Reclamation Furnace (P30) and associated Afterburner (C10) will also remain as significant emission units at the Norwich Avenue site. The permit application also indicated that metal drums will be processed at the Norwich Avenue site. Subsequently, applicant stated that metal drums will not be processed at Norwich Avenue site. At a meeting held on October 8, 2014, Mr. Higgins (the owner of the Mid-America Steel Drum Company facility at Norwich Avenue) stated that the reclamation furnace would be removed, when asked what the role of the reclamation furnace would be, if metal drums will not be processed anymore at the Norwich Avenue site.

Pennsylvania Avenue Site

The following equipment/operations will be added:

(a) Natural gas fired Closed Drum Drying Oven (P50C) [relocated from Norwich Avenue site]

(b) Auto Exterior Drum Spray Booth (P32C) [relocated from Norwich Avenue site]

(c) Natural gas fired Curing Oven (P32B) [relocated from Norwich Avenue site]

(d) Caustic Wet Scrubber (C10) and associated stack S98 [replaces wet scrubber C21 and stack S21]

(e) Acid Wet Scrubber (C70)

(f) Bung Wash (P11)

(g) Natural gas-fired 2.0 MMBtu/hr Water Heater (P12) and Stack S92 [exhausts natural gas combustion products]

(h) Natural gas-fired 2.0 MMBtu/hr Water Heater (P13) and Stack S93 [exhausts natural gas combustion products]

(i) Natural gas -fired 3.6 MMBtu/hr Caustic Heater (P14) and Stack S94 [exhausts natural gas combustion products]

(j) Natural gas-fired 2.0 MMBtu/hr Caustic Heater and 2,000-gallon tank (P15) and Stack S95 [exhausts natural gas combustion products]

(k) Label Remover High Pressure Washer (P16)

(l) Delabeling (P71) [steel drums only]

(m) Exterior Wash/Soaker (P72) [steel drums only]

(n) Exterior Rinse (P73) [steel drums only]

(o) Internal Double Split Washer (P74) [steel drums only]

(p) Acidizer (P75)

(q) Internal Drum Washer (P42) – replaces existing Internal Drum Washer (P42)

The following operations will have updated venting configurations:

(i) Interior Caustic Preflush (P80A) – vents to scrubber C10

(ii) Exterior Washer/Soaker (P80B) – vents to scrubber C10

(iii) Exterior Rinse (P80C) – vents to scrubber C10

(iv) Natural gas-fired 0.6 MMBtu/hr Drying Oven Flamer (P41) – vents to a new stack S96

The following emission units/operations will no longer be at Pennsylvania Avenue site

(A) 2.5 MMBtu/hr natural gas-fired Hot Caustic Heater (P90A) and stack S67

(B) 2.5 MMBtu/hr natural gas-fired Hot Caustic Heater (P90B) and stack S68

(C) 2.5 MMBtu/hr natural gas-fired Hot Water Heater (P90C) and stack S69

(D) 1.75 MMBtu/hr natural gas-fired Hot Water Heater (P42A) and stack S64

(E) 1.75 MMBtu/hr natural gas-fired Hot Water Heater (P42B) and stack S63

(F) "1.75 MMBtu/hr Hot Caustic Heater" portion of P80A and stack S60

(G) "1.75 MMBtu/hr Hot Caustic Heater" portion of P80B and stack S61

The proposed construction permit (14 -RSG-142) is for the construction of several emission sources, (including some sources to be transferred from the Norwich Avenue site) at the CLCM facility . The project does not qualify for a general exemption because maximum theor etical VOC emissions from new sources (including sources to be transferred from Norwich Avenue site) to be constructed at the CLCM facility exceed 5.7 pounds per hour. The project does not qualify for any other exemption in s. NR 406.04, Wis. Adm. Code. Therefore, a construction permit is required for the project. The permittee requested synthetic minor limits for VOC and HAPs for the CLCM facility to be a non-part 70 source.

Other Actions:

This construction permit will be processed as a stand-alone constr uction permit for the entire CLCM facility located at Pennsylvania Avenue . The operation permit 241063570 -P12 issued to Mid -America Steel Drum Company, Inc./Kitzinger covers emission units/operations located at Norwich Avenue site and the Pennsylvania Aven ue site as a single part 70 source. The permit 241063570 -P12 needs to be revised to reflect the splitting of Norwich Avenue site and the Pennsylvania Avenue site as separate non - part 70 sources.

SOURCE DESCRIPTION

The current Mid -America Steel Drum Company, Inc./Kitzinger facility which is comprised of the Norwich Avenue site (located at 2529 East Norwich Avenue) and the Pennsylvania Avenue site (located at 3550 South Pennsylvania Avenue) is proposed to be split into two separate facilities. The Norw ich Avenue site will continue to be identified as Mid -America Steel Drum Company, Inc./Kitzinger facility. The Pennsylvania Avenue site (for which the construction permit 14 -RSG-142 is proposed to be issued) will be identified by the new facility name CLCM – St. Francis ('CLCM'). The Norwich Avenue site and Pennsylvania Avenue properties are contiguous (separated by the public road East Norwich Avenue).

Note: The two facilities will be considered separate sources for part 70 purpo ses because (after the project) the two facilities will fall under different major industrial grouping (i.e. different first two digits of the SIC code). But the two facilities, which are located on contiguous properties and are under common control, will be considered a single so urce for the purpose of determination of major/area source status for federal HAPs. [see section **COMPLIANCE AND TECHNOLOGY REVIEW, RULE APPLICABILITY** for a detailed analysis]

CLCM primary business is reconditioning used industrial pails, drums, and totes. Totes are large liquid storage containers, while the pails and drums can range in size from 5 gallons to 55 gallons. The containers can either be plastic or metal depending upon their original use and the materials stored such as industrial liquids - solvents, resins, and coatings. Upon arrival at the facility, the containers are inspected, cleaned, refurbished, painted, and resold. Only metal containers are painted at the facility. Damaged containers are crushed if they are steel or chipped if they are plastic and sent off for recycling.

Stack Parameter Summary For Stacks Included in Permit 14-RSG-142.

Stack ID	Actual Exhaust Point or Fugitive	Circular or Rectangular	Discharge Direction	Exhaust Obstacle	Diameter or Width (if rect.)	Length (if rect.)	Height	Temp.	Normal Flow Rate	Maximum Flow Rate
			U, D, H	Yes/No	ft (m)	ft (m)	ft (m)	°F	ACFM	ACFM
S98	Actual	Circular	Up	No	9.5	--	48	90	47,000	47,000
S92	Actual	Circular	Up	No	0.67	--	14	550	350	350
S93	Actual	Circular	Up	No	0.67	--	14	550	350	350
S94	Actual	Circular	Up	No	1.00	--	14	675	600	600
S95	Actual	Circular	Up	No	0.67	--	14	550	350	350
S96	Actual	Circular	Up	No	1.00	--	28	190	natural	natural
S62	Actual	Circular	Up	Yes	0.67	--	28	300	250	250
S53	Actual	Circular	Up	No	1.00	--	35	170	2,700	2,700
S12C	Actual	Circular	Up	No	2.17	--	35	150	15,000	15,000
S12B	Actual	Circular	Up	Yes	1.33	--	35	350	1,640	1,640

Description of New, Modified or Existing Units at Pennsylvania Avenue.

(i) Process P44, 'Stack' S44 – Plastic Drum Label Stripping (existing)

Stack S44 denotes fugitive emissions (not a physical stack). This operation, installed in 1995, uses a brush-on stripping compound containing methylene chloride to strip labels from plastic drums. The stripping compound also contains VOCs. Maximum stripping compound usage is 3.0 gallons per hour.

(ii) Process P95, Control C10, Stack S98 – Small Plastic Drum Caustic Pre-Flush (existing)

Small plastic drums are washed with water. The drums are transported to and from this process via conveyor. P95 will not be considered an air pollutant emission source and therefore, will not be included in the permit. Emissions (water mist) from P95 are vented to the scrubber (C10) to reduce building humidity. This process (P95) was constructed in July 1995. Maximum throughput is 100 drums per hour.

Note: Although the word "caustic" is associated with process name for P95, the drums are washed only with water supplied by hot water heater P42C. According to the applicant the name of P95 is carried forward from the previous permits to avoid confusion [Ref.: e-mail dated December 29, 2014 from Ms. Amy Litscher (consultant)].

(iii) Process P11, Control C10, Stack S98 – Bung Washer (new)

This is a new (proposed) process. Steel and plastic drum bungs are washed with fresh water. Water mist emissions are exhausted to the new wet scrubber (C10). This process will not be considered an air pollutant emission source and will not be included in the permit.

(iv) Process P80A, Control C10, Stack S98 – Interior Caustic Preflush (existing)
Process P80B, Control C10, Stack S98 – Exterior Wash/Soaker (existing)
Process P80C, Control C2, Stack S21 – Exterior Rinse (existing)

The drums are washed with water. The drums are transported to and from these processes via conveyor.

These processes (P80A, P80B, and P80C) were constructed in July 1995. Emissions from these processes are controlled by a new wet scrubber (C10) before exhausting via new stack S98. The new wet scrubber (C10) replaces the existing wet scrubber (C21). The existing stack S21 that exhaust emissions after control by C21 will be removed.

The closed top drums are washed upside down. Process P80A is actuated as each drum passes over the wash solution injection pipe. The exterior drum wash operation (P80B) sprays wash solution from the top of the wash system enclosure over the top of the drums. The exterior drum spray system (P80B) is turned on at the beginning of the shift, and wash solution is sprayed continuously throughout the shift (i.e. for eight hours). Hot water is used in processes P80A and P80B. P80C uses fresh water for rinsing.

Both plastic drums and steel drums undergo the process P80A. Only plasti c drums undergo processes P80B and P80C.

Maximum throughput is 100 drums per hour.

Note: Processes P80A and P80B no longer use a 2 -3% (by wt.) NaOH solution as indicated in previous reviews. New water heaters P12 and P13 supply water for P80A. Water heated in P12 and P13 are not pH -adjusted with NaOH [Ref.: e-mail dated December 22, 2014 from Ms. Amy Litscher (consultant)]. New water heater P14 supplies water for P80B. NaOH is used (as needed) in P14 to adjust pH so that water is not acidic.

P80A and P80C will not be considered air emission sources and therefore, will not be included in the permit. P80B uses NaOH added water and therefore, will be included in the permit.

(v) Process P12, Control C10, Stacks S92, S98 – Hot Water Heater (new)
Process P13, Control C10, Stacks S93, S98 – Oil/Water Heater (new)
Process P14, Control C10, Stacks S94, S98 – Caustic Heater (new)

P12, P13, and P14 are new natural gas -fired heaters with heat input capacities 2.0 MMBtu/hr, 2.0 MMBtu/hr, and 3.6 MMBtu/hr, respectively. NaOH is added to P14 to adjust pH. Water vapor from P12, P13 and P14 are vented to the scrubber C 10 to reduce building humidity. N atural gas combustion products from P12, P13 and P14 are exhausted via stacks S92, S93 and S94, respectively.

(vi) Process P16, Control C10, Stack S98 – Label Remover High Pressure Washer (new)

Water under high pressure is used to remove labels from plastic drums. Water mist is vented to the scrubber C10. P16 will not be considered an air pollution source.

(vii) Process P42, Control C21, Stack S21 – Internal Drum Washer (new)

The new internal drum washer (P42), which replaces the existing internal drum washer (P42), consists of several dip tank stations. The drums interior is flushed/rinsed with hot water supplied from new water heater P15. NaOH is added to P15 to adjust the pH of the water, as needed. Water mist emissions which may contain NaOH are vented to the scrubber C10. Only plastic drums go through this process.

(viii) Process P15, Control C10, Stacks S95, S98 – Hot Caustic Heater and 2,000-gallon Tank (new)

This new 2.0 MMBtu/hr natural gas-fired heater is used to heat water for interior drum washing (P42). NaOH is added to adjust pH as needed.

(ix) Process P41, Stack S96 – Drying Oven/Flamer (natural gas fired) (new)

Natural gas combustion emissions from P41 are exhausted via a new stack S96. The previous stack S66 is being removed. The updated maximum heat inpu t rate is 0.60 MM Btu/hr (previously listed as 0.9 MMBtu/hr).

(x) Process P42C, Stack S62 – Hot Water Heater (existing)

Maximum heat input rate: 1.75 MMBtu/hr

(xi) Process P45 – Drum Wipe Cleaning (existing)

Plastic drums are wipe cleaned prior to shipping. This is the last step in plastic drum reclamation operation. This process currently uses only acetone as a cleaning solvent. The permittee would like to have the option of using VOC containing solvents in this process. This process had previously used VOC containing RC Lacquer Thinner as a cleaning solvent.

Maximum cleaning solvent usage: 3.75 gal/hr

(xii) Process P71 – Delabeling (new)

This new process will remove labels from steel drums. Solvents to be used in this process do not include methylene chloride or any other HAP . Methylene chloride will be used only in Process P44.

Maximum cleaning solvent usage: 3.0 gal/hr

(xiii) Process P72, Control C10, Stack S98 – Exterior Wash/Soaker (new)

After delabeling the steel drums (P71), the drum exterior is washed with hot water provided by hot water heater P14. As P14 may use NaOH for pH adjustment, water mist emissions that are vented to the scrubber may contain NaOH.

(xiv) Process P73, Control C10, Stack S98 – Exterior Rinse (new)

After P72, the steel drum exterior is rinsed with hot water provided by hot water heater P15. As P15 may use NaOH for pH adjustment, water mist emissions that are vented to the scrubber may contain NaOH.

(xv) Process P74, Control C10, Stack S98 – Internal Double Split Washer (new)

After Process P73, drum interior is washed with hot water supplied by heaters P12 and P14. As P14 may use NaOH for pH adjustment, water mist emissions that are vented to the scrubber may contain NaOH.

(xvi) Process P75, Control C70 (Acid Scrubber), C10 (Caustic Scrubber), Stack S98 – Acidizer (new)

After Process P74 , HCl is added to steel drum in Process P75. Emissions are directed to the new acid scrubber (C70). Exhaust gases from the acid scrubber are sent to the wet scrubber C10.

(xvii) Process P76, Control C76 (Baghouse) – Shot Blaster (new)

Steel drums, after undergoing processes P71, P72, P73, P74 and P75 in sequence , are shot blasted. Shot blast emissions are controlled by a baghouse before venting inside the building. Since emissions are vented inside the building after control by the baghouse, the new shot blaster (P76) is not considered an emission source.

(xviii) Process P50C, Stack S53 – Closed Drum Drying Oven (new – relocated)

This process is being relocated from the Norwich Avenue site. The oven is natural gas -fired with a heat input capacity of 0.6 MMBtu/hr. This process dries closed drums before being sent to the sp ray booth P32C.

(xix) Process P32C, Control C32C (Overspray Filter), Stack S12C – Auto Exterior Drum Spray Booth (new – relocated)

This process is being relocated from the Norwich Avenue site. Drum exterior is painted by this process.

(xx) Process P32B, Stack S12B – Curing Oven (new – relocated)

The curing oven, also being relocated from the Norwich Avenue site , is associated with the spray booth P32C. The curing oven is natural gas-fired with a heat input capacity of 2.6 MMBtu/hr.

Note: The permit application states emissions from following sources are also vented to the wet scrubber (C10): Settling Tank 1, Settling Tank 2, Oil Water Separator, Used Oil Tank, Oil Treatment Tank, Poly Auto Purge 1, Poly Auto Purge 2, Water Treatment System. These sources are considered as insignificant emission sources in the application.

Insignificant Emissions Units at the Facility.

Maintenance of Grounds, Equipment, and Buildings

Pollution Control Equipment Maintenance

Internal Combustion Engines Used for Warehousing and Material Transport

Janitorial Activities

Office Activities

Convenience Water Heating

Convenience Space Heating (< 5 MMBtu/hr Burning Gas, Liquid, or Wood)

Sanitary Sewer and Plumbing Venting

Vacuum – Closed Drum Blaster

Rotary Barrel Washing Operation

Barrel Inside Air Purge

Fiber Drum Cleaning/Drum Cleaning

Shotblaster (P76) – vents inside the building after control by baghouse (C76)

Settling Tank 1, Settling Tank 2

Oil Water Separator

Used Oil Tank

Oil Treatment Tank

Poly Auto Purge 1, Poly Auto Purge 2

Water Treatment System

CROSS MEDIA IMPACTS

The NaOH scrubber (C10) water is disposed of as wastewater after being neutralized to a pH of between 5 and 9.

EMISSION CALCULATIONS.

(1) Process P32C (Auto External Paint Spray Booth), Stack S12C.

P32C is being relocated from the Norwich Avenue site to Pennsylvania Avenue site.

Maximum paint usage (P32C) = 11.60 gallons per hour

Maximum VOC content of coatings = 3.0 lb VOC/gal [RACT limit under s. NR 422.15(2)(c), Wis. Adm. Code]

Maximum solids content of coatings = 4.94 lb solids/gal [Ref.: permit application]

Solids transfer efficiency = 50% [Ref.: permit application]

Solids control efficiency = 99% (for P32C using overspray filters) [Ref.: e-mail dated January 13, 2015 from Ms. Amy Litscher (consultant)]

Process	PTE (VOC)		PTE (PM)	
	lb/hr	TPY	lb/hr	TPY
P32C	34.8	99	0.287	1.25

Notes: (1) Annual PTE is computed assuming 8,760 hr/yr operation.

(2) VOC/PM emission calculation (P32C):

PTE (VOC) = (11.60 gal/hr) x (3.0 lb VOC/gal) = 34.8 lb VOC/hr

= (11.60 gal/hr) x (3.0 lb VOC/gal) x (8,760 hr/yr) x (ton/2,000 lb) = 152.4 TPY

Permittee elected a facility-wide VOC emission limit of 99 tons per year. VOC emissions from P32C may not exceed facility-wide limit.

Therefore, PTE (VOC) for P32C = 99 tons per year

PTE (PM) = (11.60 gal/hr) x (4.94 lb solids/gal) x (1 – 0.50) x (1 – 0.99) = 0.287 lb PM/hr

= (11.60 gal/hr) x (4.94 lb solids/gal) x (1 – 0.50) x (1 – 0.99) x (8,760 hr/yr) x (ton/2,000 lb)

= 1.25 tpy

(2) Processes P12 (Stack S92), P13 (Stack S93), P14 (Stack S94)

P12, P13 and P14 are water heaters fired by natural gas. Heat input capacities of these heaters are:

2.0 MMBtu/hr (P12); 2.0 MMBtu/hr (P13); 3.6 MMBtu/hr (P14)

Pollutant	Emission Factor	PTE (P12)		PTE (P13)		PTE (P14)	
	lb/10^6 cf NG	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
PM (total)	7.6	0.015	0.065	0.015	0.065	0.027	0.117
PM_{10}	7.6	0.015	0.065	0.015	0.065	0.027	0.117
$PM_{2.5}$	7.6	0.015	0.065	0.015	0.065	0.027	0.117
CO	84	0.165	0.721	0.165	0.721	0.296	1.299
NO_x	100	0.196	0.859	0.196	0.859	0.353	1.546
SO_2	0.6	0.001	0.005	0.001	0.005	0.002	0.009
VOC	5.5	0.011	0.047	0.011	0.047	0.019	0.085
GHG (CO_2e)	120,730.3	236.726	1,036.86	236.726	1,036.86	426.107	1,866.35

Notes: (1) Emission factors are from AP -42 Tables 1.4 -1, 1.4 -2 (July 1998 update). The GHG emission factor is derived from emission factors for carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) using global warming potentials of 1 (for CO_2), 21 (for CH_4), and 310 (for N_2O), respectively. Global Warming Potentials of methane (CH_4) and nitrous oxide (N_2O) has been changed in the November 29, 2013, update of Table A -1 to subpart A of 40 CFR part 98. The revised global warming potentials of methane and nitrous oxide are 25 (21 previously) and 298 (310 previously), respectively. Global Warming Potential i n Table B of ch. NR 405, Wis. Adm. Code, has not changed to reflect the revisions to GWP in 40 CFR part 98, subpart A, yet. Therefore, for computing GHG emissions in this review, GWP of 21 (for methane) and 310 (for nitrous oxides) are used.

GHG emission factor = [(120,000 lb/10^6 ft^3) x 1] + [(2.3 lb/10^6 ft^3) x 21] + [(2.2 lb/10^6 ft^3) x 310]

= 120,730.3 lb/10^6 ft^3 (as CO_2e)

(2) Annual PTE is based on 8,760 hours/yr operation.

(3) Sample PTE (lb/hr) calculation for CO emissions from P12:

Heat input capacity = 2.0 MMBtu/hr

Natural gas heating value = 1020 MMBtu per million cubic feet

PTE = (84 lb/10^6 cf) x (10^6 cf/1020 MMBtu) x (2.0 MMBtu/hr) = 0.1647 lb/hr

= (84 lb/10^6 cf) x (10^6 cf/1020 MMBtu) x (2.0 MMBtu/hr) x (8,760 hr/yr) x (ton/2,000 lb)
= 0.721 tpy

(3) Processes P15 (Stack S95), P41 (Stack S96), P42C (Stack S62)

P15 and P42C are water heaters fired by natural gas. P41 is a natural gas fired drying oven. Heat input capacities of these units are :

2.0 MMBtu/hr (P15); 0.6 MMBtu/hr (P41); 1.75 MMBtu/hr (P42C)

Pollutant	Emission Factor	PTE (P15)		PTE (P41)		PTE (P42C)	
	$lb/10^6$ cf NG	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
PM (total)	7.6	0.015	0.065	0.004	0.020	0.013	0.057
PM_{10}	7.6	0.015	0.065	0.004	0.020	0.013	0.057
$PM_{2.5}$	7.6	0.015	0.065	0.004	0.020	0.013	0.057
CO	84	0.165	0.721	0.049	0.216	0.144	0.631
NO_x	100	0.196	0.859	0.059	0.258	0.172	0.751
SO_2	0.6	0.001	0.005	0.0004	0.002	0.001	0.005
VOC	5.5	0.011	0.047	0.003	0.014	0.009	0.041
GHG (CO_2e)	120,730.3	236.726	1,036.86	71.02	311.06	207.135	907.25

Notes:(1) Emission factors are from AP -42 Tables 1.4 -1, 1.4 -2 (July 1998 update). The GHG emission factor is derived from emission factors for carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) using global warming potentials of 1 (for CO_2), 21 (for CH_4), and 310 (for N_2O), respectively. Global Warming Potentials of methane (CH_4) and nitrous oxide (N_2O) has been changed in the November 29, 2013, update of Table A -1 to subpart A of 40 CFR part 98. The revised global warming potentials of methane and nitrous oxide are 25 (21 previously) and 298 (310 previously), respectively. Global Warming Potential in Table B of ch. NR 405, Wis. Adm. Code, has not changed to reflect the revisions to GWP in 40 CFR par t 98, subpart A, yet. Therefore, for computing GHG emissions in this review, GWP of 21 (for methane) and 310 (for nitrous oxides) are used.

(2) Annual PTE is based on 8,760 hours/yr operation.

(3) Sample PTE (lb/hr) calculation for CO emissions from Pl5:

Heat input capacity = 2.0 MMBtu/hr

Natural gas heating value = 1020 MMBtu per million cubic feet

PTE = (84 $lb/10^6$ cf) x (10^6 cf/1020 mmBtu) x (2.0 mmBtu/hr) = 0.1647 lb/hr

= (84 lb/10^6 cf) x (10^6 cf/1020 MMBtu) x (2.0 MMBtu/hr) x (8,760 hr/yr) x (ton/2,000 lb)

= 0.721 tpy

(3) Processes P50C (Stack S53), P32B (Stack S96)

P50C is a natural gas fired closed drum dryer. P32B is a natural gas fired curing oven associated with the Auto Exterior Drum Spray Booth (P32C). Heat input capacities of these units are :

0.6 MMBtu/hr (P50C); 2.6 MMBtu/hr (P32B)

Pollutant	Emission Factor	PTE (P50C)		PTE (P32B)	
	lb/10^6 cf NG	lb/hr	tpy	lb/hr	tpy
PM (total)	7.6	0.004	0.020	0.019	0.085
PM_{10}	7.6	0.004	0.020	0.019	0.085
$PM_{2.5}$	7.6	0.004	0.020	0.019	0.085
CO	84	0.049	0.216	0.214	0.938
NO_x	100	0.059	0.258	0.255	1.116
SO_2	0.6	0.0004	0.002	0.002	0.007
VOC	5.5	0.003	0.014	0.014	0.061
GHG (CO_2e)	120,730.3	71.02	311.06	307.74	1,347.92

Notes:

(1) Emission factors are from AP-42 Tables 1.4-1, 1.4-2 (July 1998 update). The GHG emission factor is derived from emission factors for carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) using global warming potentials of 1 (for CO_2), 21 (for CH_4), and 310 (for N_2O), respectively. Global Warming Potentials of m ethane (CH_4) and nitrous oxide (N_2O) has been changed in the November 29, 2013, update of Table A -1 to subpart A of 40 CFR part 98. The revised global warming potentials of methane and nitrous oxide are 25 (21 previously) and 298 (310 previously), respect ively. Global Warming Potential in Table B of ch. NR 405, Wis. Adm. Code, has not changed to reflect the revisions to GWP in 40 CFR part 98, subpart A, yet. Therefore, for computing GHG emissions in this review, GWP of 21 (for methane) and 310 (for nitrous oxides) are used.

(2) Annual PTE is based on 8,760 hours/yr operation.

WISCONSIN HAZARDOUS AIR POLLUTANT (NR 445) REVIEW

There are several hazardous air pollutants expected to be emitted from the operation of the facility. The emissions are expected from the following processes:

(a) Natural gas combustion products from drying/curing ovens and hot water heaters

(b) NaOH from hot water heaters P14, P15 and from drum washing operations that use hot water from P14 and/or P15. All NaOH emissions from these sources are vented to scrubber C10 which exhausts to the atmosphere via Stack S98.

(c) P44 - Use of methylene chloride containing solvent. The solvent used also contains methanol and toluene.

(d) P32C – Glycol ethers from coatings.

(e) P75 – HCl used in P75. Emissions are directed to scrubber C70 and then to scrubber C10.

HAP emissions from natural gas combustion are exempt from review under s. NR 445.07, Wis. Adm. Code, as natural gas is a Group 1 virgin fossil fuel. According to the permit application, potential NaOH emissions from the 48 feet high unobstructed Stack S98, which exhausts emissions after control by scrubber C10, are 0.615 pounds per hour. This estimation is based on NaOH usage and a 99% control by the scrubber. Table A (NR 445) threshold for NaOH for stack height category 40 feet to < 75 feet is 0.914 pounds per hour. Therefore, NaOH emissions are exempt from further review.

Note: Since the scrubber liquid pH is maintained between 5 and 9, it is hard to accurately predict the NaOH emission rate. No NaOH emissions are expected when scrubber pH is at 7 or below.

Methylene chloride emissions are exhausted indoors. Table A of NR 445 has both an hourly (24-hr average) threshold and an annual threshold. The applicant submitted some test information to indicate the facility is complying with applicable OSHA requirements. Therefore, these emissions are exempt as per s. NR 445.07(5)(d), Wis. Adm. Code.

P32 is subject to organic HAP emission limitation under NESHAP for Surface Coating of Miscellaneous Metal Parts and Products. Therefore, organic HAP emissions (which include glycol ethers) from P32C are exempt from review under s. NR 445.07, Wis. Adm. Code.

HCl emissions from P75 are controlled by scrubber C70 followed by scrubber C10. NaOH laden exhausts to C10 would neutralize HCl emissions that may still enter the scrubber C10 after control by scrubber C70. The scrubber C10 pH is maintained between 5 and 9. No HCl emissions are expected at pH 7 or more. HCl emissions from stack S98 are expected to be below the Table A thresholds for HCl.

Note: Since the scrubber liquid pH is maintained between 5 and 9, it is hard to accurately predict the HCl emission rate. No HCl emissions are expected when scrubber pH is at 7 or above.

Therefore, no further review is necessary.

COMPLIANCE AND TECHNOLOGY REVIEW, RULE APPLICABILITY

(1) Single Source Determination

(a) Part 70

For part 70 status determination purposes, any group of stationary sources that is located on one or more contiguous or adjacent properties, is under common control of the same person or persons, and belongs to a single major industrial grouping is conside red a single source. Previous EPA applicability determinations have established that a sin gle major industrial grouping means having the first two digits of the SIC (Standard Industrial Classification) the same . Previous EPA determinations have also determined that in the case where the first two digits of the SIC of the two entities are different , the two entities would still be considered as 'belonging to a single major industrial grouping' if the two entities have a 'support facility' relationship.

Currently, the two sites (Norwich Avenue site, Pennsylvania Avenue site) are permitted (permit 241063570-P12) as a single source because the two sites are located on contiguous property (separated by a public street), are under common control and the first two digits of SIC for each site are the same . In the permit application, the applicant requested to split the two sites into two separate facilities.

Under the proposed plan, the Pennsylvania Avenue site 's primary business will continue to be reconditioning of used empty metal and plastic industrial drums - SIC code 3412 (Industry: Metal Barrels, Drums, and Pails). The Norwich Avenue site will be engaged in receiving various materials (mainly metal and plastic), sorting, and then wholesale distribution of the commodity materials-SIC code 5093(Industry: Scrap and Waste Materials). [Ref.: email dated August 22, 2014, from Amy Litscher]

The email dated August 22, 2014, from Amy Litscher also states that the Norwich Avenue site does not share in any business, i s not a supplier to, and is not a client of the Pennsylvania Avenue site. Furthermore, any finished products from the CLCM facility (Pennsylvania Avenue site) will not be stored for any length of time at Norwich Avenue site. This was confirmed during a meeting on October 8, 2014. Therefore, there is no support facility relationship between these two sites.

The October 8, 2014, meeting was attended by Daniel Schramm and Ruhun Goonewardena from DNR; Ms. Amy Litscher (consultant to the applicant), Mark Furgas on (Responsible official for the Pennsylvania Avenue site), and Mr. Higgins (owner of Norwich Avenue site).

Because the Norwich Avenue site and the Pennsylvania Avenue site do not belong to a single majo r industrial grouping (the first two digits of SIC co de are different, and one site is not a support facility to the other site) the two sites are considered separate sources for part 70 status determination purposes.

The permittee elected synthetic minor emission limitations for VOC and federal HAP emission s for the Pennsylvania Avenue site to be a non -part 70 source. The Norwich Avenue site will be a natural minor non-part 70 source.

(b) HAP major/ minor source classification

For federal HAPs , a 'major source' means any stationary source or group of statio nary sources located within a contiguous area under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or

more of any combination of haz ardous air pollutants, unless the administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this definition. [s. NR 460.02(24), Wis. Adm. Code]

Under the current permit (which was issued to both sites as a single source), the Norwich Avenue and the Pennsylvania Avenue sites are a major HAP source and are subject to the NESHAP for Surface Coating of Miscellaneous Metal Parts and Products because the facility performs surface coating of metal drum s and the potential for methylene chloride emissions from the facility exceed 10 tons per year.

Even though under the new proposal, the Norwich Avenue site and the Pennsylvania Avenue site are considered separate sources for part 70 purposes, the two site are considered a single source for determining federal HAP major/minor (area) source status. This is because the two sites are under common control and are locate d on contiguous pr operties. Unlike the determination of part 70 single source status, it is not necessary for the two sites to belong to a single major industrial grouping for determining federal HAP single source status.

Under the new proposal, the applic ant elected to limit any single federal HAP (including methylene chloride) emissions to less than 10 tons per year. The permittee also elected to limit total federal HAP emissions to less than 25 tons per year. Norwich Avenue site has no potential to emit methylene chloride or any other HAP emissions (except for natural gas combustion products from the 5.2 MMBtu/hr natural gas-fired boiler) . But the permit conditions restricting facility emissions of any single federal HAP emissions and total federal HAP emissions to less than 10 tons per year and 25 tons per year, respectively, include HAP emissions from Norwich Avenue (if any). The permittee elected not to use HAP-containing solvents in processes P45 and P71. Therefore, the potential HAP emission sources at the facility are the spray booth (P32C), Label Stripping (P44), and natural gas combustion operations. After the project the Norwich Avenue plus the Pennsylvania Avenue site s together will be considered an area (minor) source for federal HAPs. Because the current facility (the Norwich Avenue site plus the Pennsylvania Avenue site) is subject to the MACT for Surface Coating of Miscellaneous Metal Parts and Products, the Pennsylvania Site's metal surface coating operations (the P32C that will be transferred from the Norwich Avenue site) will continue to be subject to this MACT standard (because of the 'once in always in' MACT rule). There will be no coating operations at the Norwich Avenue site after the proposed changes.

Note: Because of the elected synth etic area (minor) source HAP limits, the 5.2 MMBtu/hr natural gas fired process boiler (B20) at the Norwich Avenue site will be considered to be located in an area source of federal HAPS. The area source boiler MACT is not applicable to natural gas-fired boilers.

(c) Synthetic minor limits

The maximum theoretical VOC emissions from the facility exceed 100 tons per year. Furthermore, the maximum theoretical methylene chloride and total federal HAP emissions exceed 10 tons per year and 25 tons per year, res pectively. The facility elected synthetic minor limits (99 TPY for VOC, 9.996 TPY for any single federal HAP, and 24.996 TPY for all federal HAPs) in order to be a non -part 70 source. The permit will also have a VOC emission limit of 24 TPY from P44 and P45 combined. This limit is carried over from permit 08 -RSG-053. Permit 08 -RSG-053 restricted the combined VOC emissions from sources constructed in July 1995 (except from natural gas combustion) at the Pennsylvania Avenue site to 24 TPY. Of the sources constructed in July 1995 (except for natural gas combustion sources), only P44 and P45 remain at the Pennsylvania Avenue site.

Compliance with the limit of the 99 TPY VOC limit (16,500 pounds per month , averaged over any 12 consecutive month period) will be demonstrated by:

(a) Daily recordkeeping of amounts of each coating and clean-up solvent used in P32C (spray booth);

(b) Monthly recordkeeping of amount of solvent used in P44 (plastic drum label stripping). P44 has LACT VOC content limit of 1.52 lb VOC/gallon. P44 also has a monthly methylene chloride containing solvent usage limit of 190 gallons per month (12 month rolling average). The solvent used in P44 has a methylene chloride content of 8.59 lb/gallon and a VOC content of 1.52 pounds/gallon. Because P44 uses a single solvent, and has a monthly solvent usage limit, monthly solvent usage will be adequate to compute monthly VOC emissions.

(c) Monthly recordkeeping of amount of solvent used in P45 (plastic drum cleaning). P45 has LACT limits of 0.42 lb VOC/gallon and 2,000 gallons/month. P45 currently uses acetone, which is not a VOC. The above mentioned LACT limits are equivalent to a VOC emission limit of 840 pounds per month (5.04 TPY). The permit application lists potential usage as 650 gallons per month. Requiring daily recordkeeping for P45 is felt to be burdensome and only monthly recordkeeping is required.

(d) Monthly recordkeeping of amount of sol vent used in P71 (steel drum delabe ling). P71 has a LACT VOC content limit of 2.0% by volume. Permittee is likely to use non-VOC solvent in this process. Permit application lists potential solvent usage for P71 as 650 gallons per month. Requiring daily recordkeeping for P71 is felt to be burdensome and only monthly recordkeeping is required.

(e) Monthly natural gas usage at the facility

(f) Monthly recordkeeping of facility VOC emissions and the 12-month rolling average facility VOC emissions.

Compliance with the combined VOC emission limit for P44 and P45 is demonstrated using information from (b) and (c) above.

Compliance with HAP limits is demonstrated by recordkeeping. Methylene chloride is the only individual federal HAP likely to be emitted close to 10 tons per year. Compliance with the 9.996 TPY HAP emission limit for methylene chloride emissions will be demonstrated by using methylene chloride containing solvents only in P44, limiting solvent usage to 190 gallons per month (12-month rolling average), and limiting the methylene chloride content to 8.59 lb/gallon in the solvents used in P44. These limits result in a methylene chloride emission limit of approximately 9.79 TPY.

Methanol and toluene contents of the solvents used in P44 are 1.21 lb/gal and 0.61 lb/gal, respectively.

The permit application lists potential glycol ethers emissions from the spray booth (P3 2C). The permit requires daily recordkeeping of the amounts of each coating and cleanup solvent used in P32C. The permit also requires the facility to keep records of the HAP contents o f each material used in P32C that contains any HAP. This means that the monthly glycol ether emissions can be computed using daily usage records.

The HAP emissions from natural gas combustion are very low. The permittee elected not to use HAP containing solvents in P45 or P71.

(d) Process P32C (Auto External Paint Spray Booth), Stack S12C.

The spray booth is equipped with dry filters to control particulate matter emissions resulting from paint spray operations.

Particulate matter emissions from paint spray operations are subject to s. NR 415.05, Wis. Adm. Code. The more stringent limit under s. NR 415.05(1)(o) or s. NR 415.05(2), Wis. Adm. Code, will apply. The permit will include a PM_{10} emission limit of 0.287 lb/hr and a $PM_{2.5}$ emission limit of 0.287 lb/hr, based on facility-wide modeling for NAAQS.

Compliance with $PM/PM_{10}/PM_{2.5}$ limits is demonstrated by using dry filters with at least 99% control efficiency to control emissions during spray operations, regular inspection of filters, and operation of an exhaust fan designed to provide at least 15,000 cubic feet per minute exhaust flow rate through the stack S12C. The facility will be required to maintain records for the frequency of filter inspections, and retain documentation supporting filter efficiency, and documentation that demonstrates that the exhaust fan is designed to provide at least 15,000 cubic feet per minute exhaust flow rate through the stack S12C.

Visible emissions from the paint spray booth are subject to s. NR 431.05, Wis. Adm. Code. The limit is number 1 on the Ringlemann chart or 20% opacity. Compliance demonstration method(s) are the same as for particulate matter emissions.

The RACT for Miscellaneous Metal Parts and Products (s. NR 422.15, Wis. Adm. Code) applies to the coating operations. Only metal drums are coated at the facility. (Plastic drums/totes/containers are not coated at the facility). The applicable RACT emission limits for cured coatings are:

4.3 pounds per gallon of coating, excluding water, delivered to a coating applicator for clear coatings;

3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator for extreme performance coatings;

and 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for coatings other than clear coatings [s. NR 422.15(2), Wis. Adm. Code].

P32C uses 'other than clear coatings' which are cured in drying oven P32B. Compliance will be demonstrated by recordkeeping. As per s. NR 422.03(7), Wis. Adm. Code, use of up to 55 gallons of non-compliant coatings during any 12 consecutive months is allowed. The noncompliant coating usage limit under ch. NR 422, Wis. Adm. Code, is a facility-wide limit (but P32C is the only source at the facility subject to an emission limitation under sch. NR 422, Wis. Adm. Code).

The coating of metal drums is subject to NESHAP for Surface Coating of Miscellaneous Metal Parts and Products under subchapter V of s. NR 465, Wis. Adm. Code. The current facility, which includes the Norwich Avenue site and the Pennsylvania Avenue site, is permitted as a single source and is subject to this MACT. Although the facility elected a limit of less than 10 tons HAP per year for any single HAP and a 25 tons HAP per year limit for combined HAPs, this MACT continues to apply to the Pennsylvania Avenue site because of the 'once in always in' rule.

Note that although proposed the Norwich Avenue site and the Pennsylvania Avenue site will be separate facilities for part 70 source purposes, they are a single source for MACT applicability purposes. Previous reviews have determined that the affected source at the Norwich Avenue – Pennsylvania Avenue facility is an existing affected source (construction commenced on or before August 13, 2002). Therefore, the MACT standards for an existing source will apply to P3 2C, even though P32C was constructed only in 2005 at the Norwich Avenue site as a part of a project to replace some paint booths that were destroyed by a fire in 2005. Installation of new equipment destroyed by the 2005 fire did not meet the definition of reconstruction in NR 460.02(32), Wis. Adm. Code.

(e) Process P44, 'Stack' S44 – Plastic Drum Label Stripping

This process removes labels from plastic drums using a solvent that contains methylene chloride and VOCs.

RACT for Industrial Cleaning Operations - Part 1 under s. NR 423.035, Wis. Adm. Code, applies to industrial cleaning operations, if the maximum theoretical VOC emissions from the facility (excluding VOCs from combustion or VOCs specifically subject to ss. NR 419.05, 419.06, or 419.08, ch. NR 420, 421, or 422, or ss. NR 423.03, 423.05, 424.04 or 424.05) are 25 tons per year or more. Maximum theoretical emissions from P44, P71 and P45 combined exceed the 25 TPY applicability level. This process is exempt from RACT for Industrial Cleaning Operations as per s. NR 423.035(2)(a)2., Wis. Adm. Code. This exemption is for stripping of cured coatings, cured inks or cured adhesives. The Department has previously determined (preliminary determination for permit 08-RSG-053) that the adhesive holding the label to the plastic drum was a cured adhesive.

RACT for Industrial Cleaning Operations - Part 2 under s. NR 423.037, Wis. Adm. Code, applies to industrial cleaning operations, if actual VOC emissions from industrial cleaning operations (on or after May 1, 2010) are equal to or greater than 3 TPY on a 12 month rolling average basis. This process is exempt from RACT for Industrial Cleaning Operations as per s. NR 423.037(2)(a)2., Wis. Adm. Code. This exemption is for stripping of cured coatings, cured inks or cured adhesives. Department has previously determined (preliminary determination for permit 08-RSG-053) that the adhesive holding the label to the plastic drum was a cured adhesive.

Section NR 424.03, Wis. Adm. Code, is applicable to this process. VOC control by 85% is demonstrated to be technologically infeasible due to high costs involved. Therefore, LACT (Latest Available Control Technology) applies. LACT was determined in permit 08-RSG-053 to be a VOC emission limit of 1,666 pounds per month (based on a 12-month rolling average) and good operating practices. The LACT for P44 will be changed to use of solvent with a VOC content of no more than 1.52 pounds per gallon, and good operating practices.

Note: P44 uses a solvent that contains 8.59 lb/gallon methylene chloride (which is not a VOC) and only 1.52 pounds VOC per gallon. The permit restricts solvent usage in P44 to 190 gallons per month (12-month rolling average) in order to restrict facility-wide methylene chloride usage to less than 10 tons per year. Only P44 is allowed to use methylene chloride containing solvents. Because VOC emissions from P44 are from the same methylene chloride containing solvent, the amount of VOC containing solvent usage is also indirectly restricted to 190 gallons per month (12-month rolling average) limit. Therefore, the LACT VOC content limit of 1.52 lb VOC/gal indirectly limits VOC emissions from P44 to 288.8 pounds per month (on a 12-month rolling average).

Good operating practices (same as in permit 08-RSG-053) include all of the following:

(a) Immediately after use, place all rags, or any other porous material used to apply solvent, in a covered container (labeled as waste solvent), and handled in accordance with local, state and federal regulations.

(b) Store waste solvent only in covered containers labeled as waste solvent and handled in accordance with local, state and federal regulations.

(c) Follow operating procedures which prevent solvent from dripping from the applicator during solvent application.

Compliance with the VOC LACT emission limit is demonstrated by recordkeeping.

(f) Process P45, 'Stack' S45 – Plastic Drum Wipe Cleaning

In this process plastic drums are wipe cleaned with a solvent. Currently, only acetone (a non -VOC solvent) is used in this process. In the past, the facility had used a solvent that contained VOCs called RC Lacquer Thinner. The facility wants the flexibility to use solvents that contain VOCs in this process.

RACT for Industrial Cleaning Operations under s. NR 423.035, Wis. Adm. Code, applies to industrial cleaning operations, if maximum theoretical VOC emissions from the facility (excluding VOCs from combustion or VOCs specifically subject to ss. NR 419.05, 419.06, or 419.08, ch. NR 420, 421, or 422, or ss. NR 423.03, 423.05, 424.04 or 424.05) are 25 tons per year or more. Maximum theoretical emissions from P44, P71 and P45 combined exceed 25 TPY. This process is exempt from RACT for Industrial Cleaning Operations as per s. NR 423.035(2)(a)2., Wis. Adm. Code. The Department has previously determined (preliminary determination for permit 08-RSG-053) that the material wiped off is classified as a cured coating, ink or adhesive.

RACT for Industrial Cleaning Operations under s. NR 423.037, Wis. Adm. Code, applies to industrial cleaning operations, if actual VOC emissions from industrial cleaning operations (on or after May 1, 2010) are equal to or greater than 3 TPY on a 12 month rolling average basis. This process is exempt from RACT for Industrial Cleaning Operations as per s. NR 423.037(2)(a)2., Wis. Adm. Code. (Again because the material wiped off is classified as a cured coating, ink or adhesive it meets the exemption.)

s. NR 424.03, Wis. Adm. Code, is applicable to this process. VOC control of at least 85% is demonstrated to be technologically infeasible due to the high costs involved. Therefore, LACT (Latest Available Control Technology) applies. LACT was determined in permit 08-RSG-053 to be a VOC emission limit of 1,666 pounds per month (based on a 12-month rolling average) and good operating practices. The LACT for P45 will change to the use of a solvent with a VOC content of no more than 0.42 pounds per

gallon, solvent usage of no more than 2,000 gallons per month, and good operating practices.

Note: P45 currently uses acetone, which is not a VOC. The application requests flexibility to use VOC containing solvents. The permit application indicates maximum solvent usage of 3.75 gallons per hour. The application uses solvent a VOC content of 0.42 pounds per gallon for computing PTE and MTE. The permit application states that the potential solvent usage will be 650 gallons per month. The revised LACT allows 2,000 gallons per month of solvent usage with a VOC content of up to 0.42 pounds per gallon. This is equivalent to a LACT limit of 840 pounds VOC per month. The reason for changing the LACT from a pounds VOC per month limit to a solvent content and solvent usage limit is to allow the facility to do monthly recordkeeping of solvent usage instead of daily recordkeeping of solvent usage.

Section NR 406.04(4)(h), Wis. Adm. Code, allows changing the LACT for a process line without the need for a construction permit provided that the annual potential VOC emissions from the process line based on the new LACT does not exceed the annual potential VOC emissions from the process line based on the current (existing) LACT; and the change does not trigger a requirement under a NSPS or a MACT (except for a GACT).

Good operating practices (same as in permit 08-RSG-053) include all of the following:

(a) Immediately after use, place all rags, or any oth er porous material used to apply VOC containing solvent, in a covered container (labeled as waste solvent), and handled in accordance with local, state and federal regulations.

(b) Store waste VOC containing solvent only in covered containers labeled as w aste solvent and handled in accordance with local, state and federal regulations.

(c) Follow operati ng procedures which prevent VOC containing solvent from dripping from the applicator during solvent application.

Compliance with the VOC LACT emission limit is demonstrated by recordkeeping.

The p ermittee elected not to use HAP containing solvents in Process P45. Compliance will be demonstrated by recordkeeping. (The HAP content of each solvent used in P 45 will be recorded and the facility will keep the MSDS for any solvents used.)

(g) Process P71 – Steel Drum Delabeling

This pro cess removes labels from steel drums using a solvent . According to the application methylene chloride will not be used as a solvent or solvent component.

Similar to a determination made for process P44, the RACTs for Industrial Cleaning Operations under ss. NR 423.035 and NR 423.037, Wis. Adm. Code, does not apply to P71 as adhesives holding the label to the steel drum is viewed as a cured adhesive.

P71 is subject to wipe cleaning s tandards under s. NR 423.03(7), Wis. Adm. Code , unless P71 uses only solvents containing VOC content of 2.0% or less by volume [s. NR 423.03(2)(h), Wis. Adm. Code] . The requirements under s. NR 423.03(7), Wis. Adm. Code, are:

(a) Immediately after use, place all rags, or any other porous materials used to apply solvent, in a covered container that is labeled as waste solvent, and handled in accordance with local, state and federal regulations.

(b) Store waste solvent only in covered containers labeled as waste sol vent and handled in accordance with local, state and federal regulations.

(c) Follow operating procedures which prevent solvent from dripping from the applicator during solvent application.

(d) Install and operate one of the following:

(i) A vapor collection system th at includes a carbon adsorption system demonstrated to have at least 90% capture efficiency, and a 90% control efficiency as measured across the carbon adsorption equipment and averaged over a complete adsorption cycle.

(ii) Use of a solvent with a volatility of less than 2 kPa (0.3 psia) measured at 38°C (100 °F).

(iii) A system demonstrated to have a control efficiency equivalent to or greater than that described in (i) or (ii) above and approved by the department.

(e) Provide a permanent, conspicuous label, summarizin g the operating procedures of paragraphs (a) to (c) above, and provide supervision or instruction adequate to ensure that the procedures of paragraphs (a) to (c) above are followed.

Notes: "Wipe cleaning" means the cleaning and removing of soils from the metal surfaces of a product or product component by manually wiping the surfaces with solvent using a porous applicator while maintaining the solvent below its boiling point. [s. NR 423.02(12), Wis. Adm. Code]

"Solvent" means organic materials which are li quid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents. [s. NR 400.02(146), Wis. Adm. Code]

The permittee elected to use solvents that have a VOC content of 2.0% or less by volume. Therefore, s. NR 423.03(7), Wis. Adm. Code, does not apply to P71. Because P71 is allowed to use solvents with VOC content of up to 2.0% (by volume), s. NR 424.03, Wis. Adm. Code, does apply to P71. VOC control of at least 85% is demonstrated to be technologically infeasible due to high costs involved. Therefore, the LACT (Latest Available Control Technology) rule applies. The LACT for P71 is determined to be the use of solvents with VOC content no greater than 2.0% by volume (the limit elected to avoid being subjected s. NR 423.03(7), Wis. Adm. Code). Compliance is demonstrated by keeping records of the VOC content (by volume) of the solvents used in P71.

The permittee elected not to use HAP -containing solvents in Process P71. Compliance will be demonstrated by keeping records of the HAP content of each solvent used in P71 and maintaining MSDS for any solvents used.

(h) Hot Water Heaters, Curing/Drying Ovens

Hot water heaters (P12, P13, P14, P15, P42C), drying ovens (P41, P50C), and the curing oven (P32B) are fired with natural gas. Particulate matter emissions exhausted from stacks due to combustion of natural gas in these units are subject to the emission limit of 0.15 pounds particulate matter per million Btu heat input in s. NR 415.06(2)(a) , Wis. Adm. Code. Compliance will be demonstrated by combusting only natural gas in these units.

These units are also subject to the visible emission standard of number 1 on the Ringlemann chart or 20% opacity under s. NR 431.0 5, Wis. Adm. Code. Compliance will be demonstrated by combusting only natural gas in these units.

(i) Drum Washing/Rinsing

Drums are washed with water. Some processes use pH adjusted water. Water pH is adjusted using NaOH as needed. Emissions (water mist) are directed to the new wet scrubber C10 which replaces the existing scrubber (C21). Because of NaOH laden water mist are controlled by the wet scrubber, scrubber emissions are expected to contain some NaOH. The estimat ed potential NaOH emissions (after control by the scrubber) from Stack S98 are below the respective Table A threshold (stack height category 40 feet to < 75 feet) in s. NR 445.0 7, Wis. Adm. Code. Therefore, the NaOH emissions are expected to meet the NaOH ambient air 1-hour standard of 200 $\mu g/m^3$. Compliance with the standard are met by maintaining the pressure drop across scrubber in accordance with manufacturer 's recommendation or based on good engineering judgment.

AIR QUALITY REVIEW

DATE: January 22, 2015 FID: 341158070
Permit: 14-RSG-142

TO: Ruhun Goonewardena- SER

FROM: Emily Houtler – AM/7

SUBJECT: Revised Air Dispersion Analysis for CLCM St. Francis- St. Francis (Milwaukee County)

A. INTRODUCTION

A dispersion modeling analysis was completed on January 22, 2015 to assess the impact to ambient air of the sulfur dioxide (SO_2), carbon monoxide (CO), particulate matter (PM_{10} & $PM_{2.5}$), and nitrogen oxide (NO_x) emissions from CLCM St. Francis in St. Francis (Milwaukee County).

B. MODELING ANALYSIS

- CLCM St. Francis supplied the emission parameters used in this analysis. Building dimensions were determined using BPIP-PRIME with measurements taken on plot plans provided with the application. Please refer to the source parameter table.
- Five years (2006-2010) of preprocessed meteorological data was used in this analysis. The surface data was collected in Milwaukee (MKE), and the upper air meteorological data originated in Green Bay.
- The AERMIC (AMS/EPA Regulatory Model Improvement Committee) Model (AERMOD) was also used in the analysis. The model used rural dispersion coefficients with the regulatory default options. These allow for calm wind and missing data correction, buoyancy induced dispersion, and building downwash including recirculation cavity effects.
- Regional background concentrations were found to be as follows:

BACKGROUND CONCENTRATIONS (Concentrations are in $\mu g/m^3$)		
Pollutant	Averaging Period	Concentration

SO_2	3 hour 24 hour Annual	43.2 30.5 8.6
NO_2	Annual	24.1
CO	1 hour 8 hour	1,362.7 1,191.2
PM_{25}	24 hour Annual	23.6 9.4
PM_{10}	24 hour	47.0

- The 2,524 receptors used in this analysis consisted of a rectangular grid with 25-meter resolution extending 500 meters from the sources. Receptors on top of company-owned buildings, within the facility fence line, or otherwise not considered ambient air in relation to the facility were excluded. Receptor elevations were derived from AERMAP using National Elevation Dataset (NED) tiles.

- The Milwaukee County PSD baselines for PM_{10}, SO_2, and NO_2 were set in 1986, 1991, and 1993 respectively. Any increase of allowable emission since that date consumes increment. All sources at CLCM St. Francis are assumed to consume. Mid-America Steel Drum is located near the facility and has several sources that were included in the increment analysis.

C. MODEL RESULTS

The results of the dispersion modeling analysis indicate that all air quality standards will be met assuming the emission rates and stack parameters listed in the source tables.

Modeling Analysis Results (All Concentrations in $\mu g/m^3$)				
	PM_{10} – 24 hour	PM_{10} – Annual	$PM_{2.5}$ – 24 hour	$PM_{2.5}$ – Annual
New/Mod. Source Impact	27.2	6.0	n/a	n/a
PSD Increment	30.0	17.0	n/a	n/a
% Increment Consumed	90.7	35.3	n/a	n/a
Facility Impact	26.4	n/a	10.3	3.0
Background Concentration	47.0	n/a	23.6	9.4
Total Concentration	73.4	n/a	33.9	12.4
NAAQS	150.0	n/a	35.0	15.0
% NAAQS	48.9	n/a	96.9	82.7

Modeling Analysis Results (All Concentrations in $\mu g/m^3$)			
	NO_2 – Annual	CO – 1 hour	CO – 8 hour
New/Mod. Source Impact	19.5	n/a	n/a
PSD Increment	25.0	n/a	n/a

% Increment Consumed	78.0	n/a	n/a
Facility Impact	19.0	382.2	190.0
Background Concentration	24.1	1,362.7	1,191.2
Total Concentration	43.1	1,744.9	1,381.2
NAAQS	100.0	40,000	10,000
% NAAQS	43.1	4.4	13.8

***Note:** The USEPA and WDNR Ambient Ratio Method Tier II was applied to convert NO_x emissions into NO_2

Modeling Analysis Results (All Concentrations in $\mu g/m^3$)			
	SO_2 – 3 hour	SO_2 – 24 hour	SO_2 – Annual
New/Mod. Source Impact	1.7	0.7	0.2
PSD Increment	512.0	91.0	20.0
% Increment Consumed	0.3	0.8	1.0
Facility Impact	1.7	0.6	0.1
Background Concentration	43.2	30.5	8.6
Total Concentration	44.9	31.1	8.7
NAAQS	1,300.0	365.0	80.0
% NAAQS	3.5	8.5	10.9

CLCM ST. FRANCIS- ST. FRANCIS Stack Parameters						
Source ID	LOCATION (UTM83)	HEIGHT (M)	HEIGHT (FT)	DIAMETER (M)	VELOCITY (M/S)	TEMP (K)
S98	428299, 4758102	14.63	48.00	2.90	3.37	305.37
S92	428288, 4758116	4.27	14.00	0.20	5.04	560.93
S93	428288, 4758108	4.27	14.00	0.20	5.04	560.93
S94	428288, 4758100	4.27	14.00	0.30	3.88	630.37
S95	428288, 4758090	4.27	14.00	0.20	5.04	560.93
S96	428325, 4758083	8.53	28.00	0.30	0.01	360.93
S62	428305, 4758093	8.53	28.00	0.20	0.01	422.04
S53	428340, 4758116	10.67	35.00	0.30	17.46	349.82
S12B	428338, 4758097	10.67	35.00	0.41	0.01	449.82
S12C	428331, 4758099	10.67	35.00	0.66	20.61	338.71
S08	428440, 4757972	12.19	40.00	0.25	0.10	505.37
S10	428446, 4757952	15.24	50.00	1.29	13.01	560.93
S11	428488, 4757980	12.19	40.00	0.34	48.11	294.26
S12A-M	428456, 4758003	10.67	35.00	0.91	10.35	294.26
S12B-M	428448, 4758018	10.67	35.00	0.41	0.10	449.82
S12C-M	428443, 4758007	10.67	35.00	0.41	0.10	449.82
S13	428450, 4758024	10.67	35.00	0.66	0.10	338.71

S14	428445, 4758029	10.67	35.00	0.61	0.10	294.26
S50	428519, 4757998	10.67	35.00	0.86	0.10	294.26
S51	428421, 4757975	10.67	35.00	0.46	14.37	294.26
S53	428431, 4757981	10.67	35.00	0.85	2.56	310.93
S55	428431, 4758018	10.67	35.00	0.30	17.46	349.82
S56	428438, 4758034	10.67	35.00	0.25	0.10	358.15
S57	428522, 4758013	7.32	24.00	0.30	0.10	299.82
S58	428483, 4758003	12.19	40.00	0.15	0.10	327.59
S59	428477, 4757992	12.19	40.00	0.20	0.10	366.48
S13O	428479, 4757996	12.19	40.00	0.61	0.10	294.26
S12CO	428453, 4758036	7.98	26.18	0.61	9.70	294.26
S12BO	428443, 4758034	6.71	22.01	0.66	0.10	338.71
S12AO	428443, 4758028	5.18	16.99	0.41	0.10	449.82
S12O	428445, 4758023	5.71	18.73	0.41	0.10	377.59

Note: All sources at CLCM St. Francis are assumed to consume increment. Sources in italics are located at Mid-America Steel Drum and were only included in the increment analysis.

CLCM ST. FRANCIS- ST. FRANCIS Emission Rates					
Source ID	PM_{10} Rate (#/HR)	$PM_{2.5}$ Rate (#/HR)	SO_2 Rate (#/HR)	NO_x Rate (#/HR)	CO Rate (#/HR)
S98	0.615	0.0	0.0	0.0	0.0
S92	0.015	0.015	0.001	0.196	0.164
S93	0.015	0.015	0.001	0.196	0.164
S94	0.027	0.027	0.002	0.353	0.296
S95	0.015	0.015	0.001	0.196	0.165
S96	0.004	0.004	4.0E-04	0.059	0.049
S62	0.013	0.013	0.001	0.172	0.144
S53	0.004	0.004	4.0E-04	0.059	0.049
S12B	0.019	0.019	0.002	0.255	0.214
S12C	0.287	0.287	0.0	0.0	0.0
S08	*0.04*	*n/a*	*0.51*	*0.51*	*n/a*
S10	*5.0*	*n/a*	*0.01*	*1.57*	*n/a*
S11	*1.0*	*n/a*	*n/a*	*n/a*	*n/a*
S12A-M	*0.05*	*n/a*	*n/a*	*n/a*	*n/a*
S12B-M	*0.02*	*n/a*	*n/a*	*n/a*	*n/a*
S12C-M	*0.145*	*n/a*	*0.002*	*0.26*	*n/a*
S13	*0.19*	*n/a*	*n/a*	*n/a*	*n/a*
S14	*0.14*	*n/a*	*n/a*	*n/a*	*n/a*
S50	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
S51	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
S53	*0.01*	*n/a*	*n/a*	*0.06*	*n/a*
S55	*0.01*	*n/a*	*0.001*	*0.1*	*n/a*
S56	*0.01*	*n/a*	*0.001*	*0.1*	*n/a*

S57	*0.01*	*n/a*	*0.001*	*0.05*	*n/a*
S58	*0.01*	*n/a*	*0.001*	*0.13*	*n/a*
S59	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
S13O	*-0.25*	*n/a*	*n/a*	*n/a*	*n/a*
S12CO	*-0.018*	*n/a*	*n/a*	*n/a*	*n/a*
S12BO	*-0.018*	*n/a*	*n/a*	*n/a*	*n/a*
S12AO	*-0.018*	*n/a*	*n/a*	*n/a*	*n/a*
S12O	*-1.33*	*n/a*	*n/a*	*n/a*	*n/a*

EMISSIONS FROM NEW EQUIPMENT OR MODIFICATION

A. Stack Emissions

Stack S98 - Hazardous Air Pollutant Emissions (Stack Height – 48 ft.).

	Potential to Emit (PTE)	
Pollutant	**Pounds per hour**	**Tons per year**
NaOH	0.615	2.89

Stack S92 - Criteria Pollutants Emissions (Stack Height – 14 ft.).

	Potential to Emit (PTE)	
Pollutant	**Pounds per hour**	**Tons per year**
Particulate Matter/PM_{10}/$PM_{2.5}$	0.01	0.07
CO	0.16	0.72
NO_x	0.20	0.86
SO_2	< 0.01	0.01
VOC	0.01	0.05

Stack S93 - Criteria Pollutants Emissions (Stack Height – 14 ft.).

	Potential to Emit (PTE)	
Pollutant	**Pounds per hour**	**Tons per year**
Particulate Matter/PM_{10}/$PM_{2.5}$	0.01	0.07
CO	0.16	0.72
NO_x	0.20	0.86
SO_2	< 0.01	0.01
VOC	0.01	0.05

Stack S94 - Criteria Pollutants Emissions (Stack Height – 14 ft.).

	Potential to Emit (PTE)	
Pollutant	**Pounds per hour**	**Tons per year**
Particulate Matter/PM_{10}/$PM_{2.5}$	0.03	0.12
CO	0.30	1.30
NO_x	0.35	1.55
SO_2	< 0.01	0.01
VOC	0.02	0.09

Stack S95 - Criteria Pollutants Emissions (Stack Height – 14 ft.).

	Potential to Emit (PTE)	
Pollutant	**Pounds per hour**	**Tons per year**
Particulate Matter/PM_{10}/$PM_{2.5}$	0.01	0.07
CO	0.16	0.72
NO_x	0.20	0.86
SO_2	< 0.01	0.01
VOC	0.01	0.05

Stack S96 - Criteria Pollutants Emissions (Stack Height – 28 ft.).

Pollutant	Potential to Emit (PTE)	
	Pounds per hour	Tons per year
Particulate Matter/PM_{10}/$PM_{2.5}$	< 0.01	0.02
CO	0.05	0.22
NO_x	0.06	0.26
SO_2	< 0.01	< 0.01
VOC	< 0.01	0.01

Stack S62 - Criteria Pollutants Emissions (Stack Height – 28 ft.).

Pollutant	Potential to Emit (PTE)	
	Pounds per hour	Tons per year
Particulate Matter/PM_{10}/$PM_{2.5}$	0.01	0.06
CO	0.14	0.63
NO_x	0.17	0.75
SO_2	< 0.01	< 0.01
VOC	0.01	0.04

Stack S53 - Criteria Pollutants Emissions (Stack Height – 35 ft.).

Pollutant	Potential to Emit (PTE)	
	Pounds per hour	Tons per year
Particulate Matter/PM_{10}/$PM_{2.5}$	< 0.01	0.02
CO	0.05	0.22
NO_x	0.06	0.26
SO_2	< 0.01	< 0.01
VOC	< 0.01	0.01

Stack S12B - Criteria Pollutants Emissions (Stack Height – 35 ft.).

Pollutant	Potential to Emit (PTE)	
	Pounds per hour	Tons per year
Particulate Matter/PM_{10}/$PM_{2.5}$	0.02	0.08
CO	0.21	0.94
NO_x	0.25	1.12
SO_2	< 0.01	0.01
VOC	0.01	0.06

Stack S12C - Criteria Pollutants Emissions (Stack Height – 35 ft.).

Pollutant	Potential to Emit (PTE)	
	Pounds per hour	Tons per year
Particulate Matter/PM_{10}/$PM_{2.5}$	0.29	1.3
VOC	34.8	99

TOTAL FACILITY EMISSIONS AFTER INSTALLATION OF NEW EQUIPMENT OR MODIFICATION

Criteria Pollutants and Greenhouse Gas Emissions.

Pollutant	Potential to Emit (PTE)
	Tons per year
PM/PM_{10}/$PM_{2.5}$	1.75
CO	5.46
NO_x	6.51
SO_2	0.04
VOC	99 (elected limit)
Greenhouse Gases (as CO_2e)	7,854

Notes:
(1) $PM/PM_{10}/PM_{2.5}$ sources included in the total in the table are P32C (spray booth), P12-P15 (water heaters), P41 (drying Oven), P42C (water heater), P50C (drying oven), P32B (curing oven).
(2) Assumes all PM emissions from spray booth (P32C) are $PM_{2.5}$.
(3) All heaters, drying ovens and curing oven are natural gas fired. All PM emissions from natural gas combustion are $PM_{2.5}$.
(4) VOC sources include all PM emission sources in (1) above, P44 (plastic drum label stripping), P45 (plastic drum wipe cleaning), and P71 (steel drum de-labeling). MTE of VOC from P32C alone exceed 100 TPY. The 99 TPY facility-wide limit is elected to be a synthetic minor non-part 70 source.
(4) CO, NO_x, SO_2, greenhouse gas totals in the table are from combustion of natural gas in P12-P15, P41, P42C, P50C, and P32B. (total heat input rate 15.15 MMBtu/hr)
(5) Assumes 8,760 hours per year operation of P32C, P12-15, P41, P42C, P50C, P32B.

Hazardous Air Pollutant Emissions.

Pollutant	Potential to Emit (PTE) Tons per year
Any single federal HAP	9.996 (elected limit)
All federal HAPS	24.996 (elected limit)

FACILITY AND PROJECT CLASSIFICATION

1. Project Status.

Minor modification of a part 70 major source. Synthetic minor limits taken to change the facility from a part 70 major source to a synthetic minor non -part 70 source. Synthetic minor limits also taken to change the facility from a major source for federal HAPs to an area source for federal HAPs.

2. Facility Status After the Permit is Issued.

Synthetic minor non-part 70 source. An area source for federal HAPs.

3. EPA Class Code After the Permit is Issued.

☐ **"A"** [Means the source's maximum theoretical emissions ***and*** potential to emit for one or more pollutants are greater than major source thresholds. The source is a major source (will have a FOP)];

☒ **"SM80"** [Means the source's maximum theoretical emissions of one or more pollutants are greater than major source thresholds and potential to emit is at least 80% but less than 100% of major source thresholds. The source is a non-major source (will have a FESOP)];

☐ **"SM"** [Means the source's maximum theoretical emissions of one or more pollutants are greater than major source thresholds but potential to emit for all pollutants is less than 80% of major source thresholds. The source is a non -major source (usually will have a FESOP)];

☐ **"B"** [Means the source's maximum theoretical emissions and potential to emit fo r all pollutants are less than major source thresholds. The source is a non -major source (will have a SOP)].

4. Summary.

NSR Applicability	After Permit Issuance

	Major	Minor
PSD		X
Non-Attainment	n/a	n/a
Federal HAP		X

Part 70 Applicability	Facility After Permit Issuance		
	Part 70	FESOP (Syn. Minor)	non-part 70
Status		X	

EPA Class Code	EPA Class Code After Permit Issuance			
	A	SM80	SM	B
Status		X		

ENVIRONMENTAL ANALYSIS

An air pollution control construction permit that does not require review under chs. NR 405 or 408, Wis. Adm. Code, is considered a minor action under s. NR 150.20(1m)(m), Wis. Adm. Code and does not require an environmental analysis.

NEW SOURCE PERFORMANCE STANDARDS (NSPS) APPLICABILITY

For proposed construction of a source:

1. Is the proposed source in a source category for which there is an existing or proposed NSPS?
   ☐ Yes ☒ No ☐ Not applicable.

2. Is the proposed source an affected facility?
   ☐ Yes ☒ No ☐ Not applicable.

For the proposed modification of an existing source:

1. Is the existing source, which is being modified, in a source category for which there is an existing or proposed NSPS?
   ☐ Yes ☐ No ☒ Not applicable.

2. Is the existing source, which is being modified, an affected facility (prior to modification)?
   ☐ Yes ☐ No ☒ Not applicable.

3. Does the proposed modification constitute a modification **under NSPS** to the existing source?
   ☐ Yes ☐ No ☒ Not applicable.

4. Will the existing source be an affected facility after modification?
   ☐ Yes ☐ No ☒ Not applicable.

NATIONAL EMISSION STAND ARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS) APPLICA -

BILITY

Part 61 NESHAPS:

1. Will the proposed new or modified source emit a pollutant controlled under an existing or proposed NESHAPS?
   ☐ Yes ☒ No (if yes, identify the pollutant).

2. Is the proposed new or modified source subject to an existing or proposed NESHAPS?
   ☐ Yes ☒ No (if yes, identify NESHAPS).

Part 63 NESHAPS:

1. Will the proposed new or modified source emit a pollutant controlled und er an existing Part 63 NESHAPS?
   ☒ Yes ☐ No – methylene chloride, methanol, toluene.

2. Is the proposed new or modified source subject to an existing Part 63 NESHAPS?
   ☒ Yes ☐ No – NESHAP for Surface Coating of Miscellaneous M etal Parts and Products (40 CFR part 63, subpart MMMM) . Although the facility will become a synthetic minor area source for federal HAPs, this NESHAP still applies as the facility was a major source and this NESHAP applied to the facility when the facility was a major source.

3. Is the proposed project subject to s. 112(g) of the Clean Air Act?
   ☐ Yes ☒ No.

The section 112(g) rules only apply to case -by-case MACT standards that are developed for new con - struction or reconstruction of sources that (by themselves) constitutes a new major source of federa l hazardous air pollutants (for source categories not covered under an existing Part 63 MACT standard).

CRITERIA FOR CONSTRUCTION PERMIT APPROVAL

Section 285.63, Wis. Stats., sets forth the specific language for permit approval criteria. The Department finds that:

1. The source will meet emission limitations.

2. The source will not cause nor exacerbate a violation of an air quality standard or ambient air incre - ment.

3. The source is operating or seeks to operate under an emission reduction option. Not Applicable.

4. The source will not preclude the construction or operation of another source for which an air pollution control permit application has been received.

PRELIMINARY DETERMINATION FOR CONSTRUCTION PERMIT NO. 14-RSG-142

The Wisconsin Department of Natural Resources has reviewed the construction permit application and other materials submitted by CLCM St. Francis and hereby makes a preliminary determination that this project, when constructed or modified and operated consistent with the application and subsequent information submitted, will be able to meet the emission limits and conditions included in the attached Draft Permit. A final decision regarding emission limits and conditions will be made after the Department has reviewed and evaluated all comments received during the public comment period. The proposed

emission limits and other proposed conditions in the Draft Permit are written in the same form that they will appear in the construct ion permit. These proposed conditions may be changed as a result of public comments or further evaluation by the Department.

PERMIT FEE CALCULATION

Basic Fees.

1. Commence Construction Waiver Fee.	$300
2. Minor modification at a part 70 major source.	$7,500
Total Basic Fees	**$7,800**

Additional Fees.

1. Review and analysis of two or more basic emission units.	$5,600
2. Source subject to an emission limitation under ch. NR 465, Wis. Adm. Code	$1,000
3. Source requires an emission limit determination under s. NR 424.03(2)(c), Wis. Adm. Code	$600
4. The source requires specific permit c onditions to limit potential to emit in order to make the source a minor source.	$3,500
Total Additional Fee	**$10,700**
Total Fees (Total Basic Fees + Total Additional Fees)	**$18,500**

Credit(s).

Commence Construction Waiver Fee submitted	-$300
The initial fee submitted with the application. [$7,500]	-$7,500
Total Credits	**-$7,800**
TOTAL AMOUNT DUE (Total Fee + Total Credit)	**$10,700**

Note: For the purpose of assessing review fees for this project, the basic emission units considered are spray booth (P32C), Label Stripping (P44), Drum wipe cleaning (P45), Steel Drum De-Labeling (P71), All drum washing operations combined, all natural gas-fired water heaters combined, and all natural gas-fired drying ovens combined. This amounts to 7 basic emission units. Based on definition in s. NR 400.02(29), Wis. Adm. Code, there are more than 7 basic emission units (e.g., each water heater is a basic emission unit).