via electronic mail

March 13, 2023

Ms. Karen M. Gaidasz
Offshore Wind and Hydroelectric Section Chief
Bureau of Energy Project Management
New York State Department of Environmental Conservation
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750

Subject: Response to Outstanding NYSDEC Technical Comments
Air State Facility Permit Application – Revision 4 (DEC #: 4-0122-00322)
Port of Albany – Marmen-Welcon Tower Manufacturing Plant

Dear Ms. Gaidasz:

On behalf of Marmen Energy Co., Inc. (Marmen), Proactive Environmental Solutions, LLC. (Proactive) is pleased to respond to comments received via various emails in recent months, which are summarized below.

Marmen originally submitted an Air State Facility Permit Application that would allow for construction and operation of a new Tower Manufacturing Plant (proposed project) on January 31, 2022 (Application). Subsequently, on May 15, 2022, Marmen submitted a revised Air State Facility Application Package ("Revised ASF Application"), and on May 31, 2022 submitted a final Part 212 Review and Impact Assessment Air Dispersion Modeling Report Revision 2 ("Revised Modeling Report"). Upon review of these documents, NYSDEC sent a 2nd NOIA on June 10, 2022 and Marmen submitted a revised Air State Facility Application Package on June 28, 2022. NYSDEC subsequently sent a 3rd NOIA on August 11, 2022. Marmen submitted a revised Air State Facility Application Package on October 17, 2022 (Application_R3) addressing comments raised in NOIA3.

The enclosed revised Application (Application_R4) addresses technical items noted in various emails received from NYSDEC staff between December 2022 and January 2023. More specifically, a timeline summary and brief descriptions of email correspondence/technical comments raised between NYSDEC staff and Marmen project personnel is provided in the table below.

NYSDEC Email Date/Sender	Email Topic(s)	Marmen Response(s)
December 8, 2022 from Elvira Brankov	Part 212 Modeling-related Questions, Request for Additional Site-Wide Modeling	Response to technical questions provided in email from Chris Geraghty, dated December 12, 2022. Applicable technical updates incorporated in Attachment D of Application_R4 (e.g., site-wide modeling analyses for NO2, PM2.5, inclusion of site-wide emissions summary table for each non-criteria air contaminant evaluated under Part 212). All modeling input/output files to be uploaded to NYSDEC secure file exchange.
December 12, 2022 from Karen Gaidasz	Request for Revised CLCPA Analysis based on final NYSDEC policy guidance issued December 14, 2022	Applicable technical updates incorporated in Application_R4 (Attachment H).
December 21, 2022 from Karen Gaidasz	Clarifications regarding the request for Site-Wide Modeling, inclusion of exempt sources for NO2 and PM2.5 NAAQS compliance demonstrations	Request meeting with NYSDEC staff to seek additional clarifications, discuss acceptable modeling procedures, approval to exclude intermittent sources, etc. Meeting with NYSDEC staff held on December 29, 2022.
December 22, 2022 from Elvira Brankov	Part 212 Modeling-related request for ten (10) select non-criteria air contaminant modeling runs for validation purposes against multi-chem analyses	Applicable technical updates incorporated in Application_R4 (Attachment D). All modeling input/output files to be uploaded to NYSDEC secure file exchange.
December 30, 2022 from James Hogan	Clarifications regarding inclusion of exempt sources for site-wide NO2 and PM2.5 NAAQS modeling demonstrations, exclusion of intermittent sources from site-wide 1-hour NO2 and 24-hour PM2.5 NAAQS modeling demonstrations	Proposed modeling protocol to conduct site-wide modeling analyses for NO2 and PM2.5 provided by Chris Geraghty on January 6, 2023 for NYSDEC approval.
January 12, 2023 from Karen Gaidasz	Request for confirmation of legally responsible party/owner information	Marmen confirmed the legal responsible party to be "Marmen Energy Co" in an email response on January 12, 2023. Enclosed Application_R4 updated with correct information.
January 18, 2023 from James Hogan	NYSDEC approval of modeling protocol dated January 6, 2023	Applicable technical updates prepared in accordance with NYSDEC approved protocol and incorporated in Application_R4 (Attachment D). All modeling input/output files to be uploaded to NYSDEC secure file exchange.

Other Noteworthy Updates Included with Application_R4

Application_R4 has incorporated a change in proposed air cleaning configuration for metallization activities (U-METAL), where we now expect minimum control efficiency for PM_{10} and $PM_{2.5}$ to meet 99.99% overall control.

As previously described (in Application_R3), the portable dust collector controlling emissions from the metallization process is a Sciteex DM-FC 96/70. The metallization process will use Thermion Arc Spray Precision Arc 5 (thermal spraying) equipment using 1/8-inch zinc wire. The Thermion Arc Spray Precision Arc 5 owner's manual references a deposition efficiency of 58% (for 1/8-inch zinc wire), meaning the remaining 42% of zinc-based material used in thermal spraying are potentially released as overspray. It is expected that the portable dust collector's design rated volumetric air flowrate (41,200 cubic feet per minute) will be more than sufficient to capture all the overspray due to thermal spraying.

However, and in addition, we now also propose equipping the Building C roof-top exhaust fan (directly above the metallization bay) with a MERV-14 filter housing and Camfil Hi-Flo ES fabric filter media installed at the inlet of the roof-top exhaust fan (Emission Point "VNT4"). As such, emission unit U-METAL and corresponding emission point "VNT4" of Building C's ventilation system will be configured with fabric filter filtration in a configuration identical to ventilation systems of Buildings A and B, which will offer an additional 99% control of particulates. Thus, we expect to achieve 99.99% control for particulates on U-METAL related emissions (i.e., Sciteex DM-FC 96/70 portable dust collector combined with Camfil Hi-Flo ES fabric filter media at the inlet of the roof-top exhaust fan). There are no longer proposed restrictions on annual zinc wire usage for metallization activities (U-METAL). Maximum hourly (short-term and annual) pollutant emission rates from U-METAL are based on thermal coating spray gun design/application rates (5 guns @ 80 lbs zinc wire/hr each), or 400 lbs zinc wire/hr combined. Annual zinc wire usage for U-METAL is now based on 8,760 hours per year operation and equivalent to 3,504,000 lbs zinc wire/year (no longer restricted to 2,400,000 lbs zinc wire/year). Updates to proposed hourly and annual material usage limits are provided in pertinent NYSDEC Air State Facility Permit Application forms (Attachment A of Application_R4)).

Please note that building ventilation system exhaust parameters for (Buildings A, B and C) have also been changed based on the final project design. Emission point information for U-MFR_A, U-MFR_B and U-METAL have changed. Pertinent pages of the NYSDEC Air State Facility Permit Application_R4 (Attachment A) and the Part 212 air dispersion modeling (Attachment D of Application_R4) have been updated to reflect these changes in exhaust parameters.

Pursuant to 6 NYCRR Subpart 201-7, the facility's emissions of volatile organic compounds (VOC) and hazardous air pollutants are each proposed to be capped below major source thresholds (i.e., < 50 tpy VOC; < 25 tpy combined hazardous air pollutants (HAP) and < 10 tpy of any single HAP) under the Air State Facility Permit.

Complete NYSDEC Air State Facility Permit Application Forms and supporting information are provided as the following attachments:

ATTACHMENTS

- Attachment A – NYSDEC Air State Facility Application Forms and Continuation Sheets (***Updated***)
- Attachment B – Facility Potential Emissions Calculations (***Updated***)
- Attachment C – Figures 1-2
    - Figure 1 – Site Location Map
    - Figure 2 – Site Plan and Part 212 Process Source Emission Point Locations
- Attachment D – Part 212 Modeling Report (***Updated***)
- Attachment E – Coating Air Quality Data Sheets
- Attachment F – Material Data Sheets
- Attachment G – Equipment Technical Data Sheets
- Attachment H – Climate Leadership and Community Protection Act (CLCPA) Analysis (***Updated***)

We hope this comprehensive update and response package provides NYSDEC with sufficient information to complete the review process and issue a Draft Air State Facility Permit for the Marmen facility. Please contact Paul Eisen at (516) 510-2878 / peisen@pro-enviro.com or Chris Geraghty at (631) 624-7745 / cgeraghty@pro-enviro.com if you have any further questions.

Sincerely,

PROACTIVE ENVIRONMENTAL SOLUTIONS

Paul Eisen, CCM
Principal Scientist / CEO

Chris Geraghty, CCM
Lead Scientist

Enclosures:
Attachments A through H

Electronic Copy:
James Hogan, NYSDEC
Elvira Brankov, NYSDEC
Brian M. McCarthy, NYSDEC
Benjamin Potter, NYSDEC
Steve Boisvert, McFarland-Johnson, Inc.
David Rosa, McFarland-Johnson, Inc.
Pierre-David Paquette, Marmen Energy Co., Inc.

ATTACHMENT A

NYSDEC Air State Facility Permit Application

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID	Application ID	Application Type
- -	- /	× State Facility ☐ Title V

Section I - Certification

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information required to complete this application, I believe the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Responsible Official: Pierre-David Paquette	Title: Executive Director
Signature: Pierre-David Paquette	Date: 3-10-2023

Professional Engineer Certification

I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments as they pertain to the practice of engineering. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Professional Engineer: Norman Hinsey, PE	NYS License No.: 066707
Signature: NMH	Date: 4-12-2023

Section II - Identification Information

Type of Permit Action Requested

× New ☐ Renewal ☐ Significant Modification ☐ Administrative Amendment ☐ Minor Modification

× Application for the construction of a new facility ☐ Application involves the construction of new emission unit(s)

Facility Information

Name: Marmen-Welcon Tower Manufacturing Plant

Location Address: 309 River Road

City / × Town / ☐ Village: Bethlehem | Zip: 12077

Owner/Firm Information

Business Taxpayer ID: 3 0 0 7 7 4 0 2 2

Name: Marmen Energy Co

Street Address: 1820 North Plum Avenue

City	State/Province	Country	Zip
Brandon	South Dakota	USA	57005

Owner Classification: | Federal | State | Municipal | × Corporation/Partnership | Individual

Owner/Firm Contact Information

Name: Pierre-David Paquette	Phone:
E-mail Address: pierre-david.paquette@marmeninc.com	Fax:
Affiliation: Marmen Energy Co	Title: Executive Director - Wind Towers
Street Address:	

City	State/Province	Country	Zip

Facility Contact Information

Name: Pierre-David Paquette	Phone:
E-mail Address: pierre-david.paquette@marmeninc.com	Fax:
Affiliation: Marmen Energy Co	Title: Executive Director - Wind Towers
Street Address:	

City	State/Province	Country	Zip

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Project Description ☐ Continuation Sheet(s)

Please see cover letter.

Section III - Facility Information

Facility Classification

☐ Hospital ☐ Residential ☐ Educational/Institutional ☐ Commercial * Industrial ☐ Utility

Affected States (Title V Applications Only)

☐ Vermont ☐ Massachusetts ☐ Rhode Island ☐ Pennsylvania Tribal Land: _____
☐ New Hampshire ☐ Connecticut ☐ New Jersey ☐ Ohio Tribal Land: _____

SIC Code(s)			NAICS Code(s)			
3441			332312			

Facility Description ☒ Continuation Sheet(s)

Please see continuation sheet.

Compliance Statements (Title V Applications Only)

I certify that as of the date of this application the facility is in compliance with all applicable requirements. ☐ Yes ☐ No
If one or more emission units at the facility are not in compliance with all applicable requirements at the time of signing this application (the 'NO' box must be checked), the noncomplying units must be identified in the "Compliance Plan" block on page 8 of this form along with the compliance plan information required. For all emission units at the facility that are operating in compliance with all applicable requirements, complete the following:

☐ This facility will continue to be operated and maintained in such a manner as to assure compliance for the duration of the permit, except those emission units referenced in the compliance plan portion of this application.

☐ For all emission units subject to any applicable requirements that will become effective during the term of the permit, this facility will meet such requirements on a timely basis.

☐ Compliance certification reports will be submitted at least once per year. Each report will certify compliance status with respect to each applicable requirement, and the method used to determine the status.

Facility Applicable Federal Requirements ☒ Continuation Sheet(s)

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
See	attached		continuation	sheet.					

Facility State Only Requirements ☒ Continuation Sheet(s)

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
See	attached		continuation	sheet.					

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Facility Compliance Certification

× Continuation Sheet(s)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR		201-7						

× Applicable Federal Requirement State Only Requirement	× Capping	CAS Number	Contaminant Name
		0NY998-00-0	Volatile Organic Compounds

Monitoring Information

Work Practice Involving Specific Operations | Ambient Air Monitoring | × Record Keeping/Maintenance Procedures

Compliance Activity Description

The total facility-wide emissions of Volatile Organic Compounds (VOC) shall be limited to 12.3 tons per year for any consecutive 12-month period. The facility must maintain records in a format acceptable to the Department that verify the facility's VOC emissions. Upon request, these records must be submitted to the Department. Records to verify compliance with the permit limit shall be maintained at the facility, which shall include operating hours, and quantity of VOC containing material. The facility shall report the monthly total 12-month rolling VOC emissions to the Department annually.

Work Practice Type Code	Process Material		Reference Test Method
	Code	Description	

Monitored Parameter		Manufacturer's Name/Model Number
Code	Description	

Limit		Limit Units	
Upper	Lower	Code	Description

Averaging Method		Monitoring Frequency		Reporting Requirements	
Code	Description	Code	Description	Code	Description
85	12-MO AVERAGE - ROLLED MONTHLY	05	monthly	15	annually (calendar)

Facility Emissions Summary

× Continuation Sheet(s)

CAS Number	Contaminant Name	Potential to Emit (tons/yr)	Actual Emissions (pounds/yr)
0NY075 - 00 - 5	PM-10	8.56	< 17118
0NY750 - 02 - 5	PM-2.5	7.93	< 15850
007446 - 09 - 5	Sulfur Dioxide	0.524	< 1049
0NY210 - 00 - 0	Oxides of Nitrogen	87.9	< 175820
000630 - 08 - 0	Carbon Monoxide	73.2	< 146472
007439 - 92 - 1	Lead (elemental)	7.01E-04	< 1.40
0NY998 - 00 - 0	Total Volatile Organic Compounds	12.3	< 24572
0NY100 - 00 - 0	Total Hazardous Air Pollutants	4.99	< 9981
0NY750 - 00 - 0	Carbon Dioxide Equivalents	104784	< 209568326
1330-20-7	Xylene	2.58	< 5169
7439-96-5	Manganese	3.29E-02	< 65.8

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Description

☒ Continuation Sheet(s)

Emission Unit: -

Please see attached continuation sheets.

Building Information

☐ Continuation Sheet(s)

Building ID	Building Name	Length (ft)	Width (ft)	Orientation
BLDG A	Plate Preparation and Weldings	1050	315	300
BLDG B	Welding-Finishing	730	205	70
BLDG C	Blast-Metallization-Paint	732	170	10

Emission Unit Emissions Summary

Emission Unit: -

☒ Continuation Sheet(s)

CAS Number	Contaminant Name			
	Please see attached continuation sheets.			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Emission Point Information

☒ Continuation Sheet(s)

Emission Point						
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
See	attached	continuation	sheets.			
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal

Emission Point						
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal

Emission Point						
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (KM)	NYTM (N) (KM)	Building	Distance to Property Line (ft)	Date of Removal

Emission Source/Control Information

☒ Continuation Sheet(s)

Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model Number
	See	attached	continuation	sheets.			

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model Number

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model Number

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Process Information ☒ Continuation Sheet(s)

Emission Unit	-	Process

Process Description

See attached continuation sheets.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

Confidential Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hours/Day	Days/Year		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

Emission Unit	-	Process

Process Description

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

Confidential Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hours/Day	Days/Year		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application

DEC ID
- -

Process Emissions Summary ☒ Continuation Sheet(s)

Emission Unit	-			Process	
CAS Number	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
Please see	attached continuation sheets.					

Potential to Emit (lbs/hr)	Potential to Emit (lbs/yr)	Potential to Emit (standard units)	Standard Units	Potential to Emit How Determined	Actual Emissions (lbs/hr)	Actual Emissions (lbs/yr)

Emission Unit	-			Process	
CAS Number	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined

Potential to Emit (lbs/hr)	Potential to Emit (lbs/yr)	Potential to Emit (standard units)	Standard Units	Potential to Emit How Determined	Actual Emissions (lbs/hr)	Actual Emissions (lbs/yr)

Emission Unit	-			Process	
CAS Number	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined

Potential to Emit (lbs/hr)	Potential to Emit (lbs/yr)	Potential to Emit (standard units)	Standard Units	Potential to Emit How Determined	Actual Emissions (lbs/hr)	Actual Emissions (lbs/yr)

Emission Source Emissions Summary ☐ Continuation Sheet(s)

Emission Source				Process	
CAS Number	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined

Potential to Emit (lbs/hr)	Potential to Emit (lbs/yr)	Potential to Emit (standard units)	Standard Units	Potential to Emit How Determined	Actual Emissions (lbs/hr)	Actual Emissions (lbs/yr)

Emission Source				Process	
CAS Number	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined

Potential to Emit (lbs/hr)	Potential to Emit (lbs/yr)	Potential to Emit (standard units)	Standard Units	Potential to Emit How Determined	Actual Emissions (lbs/hr)	Actual Emissions (lbs/yr)

Emission Source				Process	
CAS Number	Contaminant Name	% Thruput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined

Potential to Emit (lbs/hr)	Potential to Emit (lbs/yr)	Potential to Emit (standard units)	Standard Units	Potential to Emit How Determined	Actual Emissions (lbs/hr)	Actual Emissions (lbs/yr)

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements									× Continuation Sheet(s)
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Cl.	Subcl.
See attached	continuation	sheets.											

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements									× Continuation Sheet(s)
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Cl.	Subcl.
See attached	continuation	sheets.											

Emission Unit Compliance Certification × Continuation Sheet(s)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
See	attached		continuation	sheets.					

Applicable Federal Requirement | State Only Requirement | Capping

Emission Unit	Emission Point	Process	Emission Source	CAS Number	Contaminant Name

Monitoring Information

- Continuous Emission Monitoring
- Intermittent Emission Testing
- Ambient Air Monitoring
- Monitoring of a Process or Control Device Parameters as a Surrogate
- Work Practice Involving Specific Operations
- Record Keeping/Maintenance Procedures

Compliance Activity Description

Work Practice Type Code	Process Material		Reference Test Method
	Code	Description	

Monitored Parameter		Manufacturer's Name/Model Number
Code	Description	

Limit		Limit Units	
Upper	Lower	Code	Description

Averaging Method		Monitoring Frequency		Reporting Requirements	
Code	Description	Code	Description	Code	Description

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Determination of Non-Applicability (Title V Applications Only) ☐ Continuation Sheet(s)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause

Emission Unit	Emission Point	Process	Emission Source	☐ Applicable Federal Requirement ☐ State Only Requirement

Non-Applicability Description

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause

Emission Unit	Emission Point	Process	Emission Source	☐ Applicable Federal Requirement ☐ State Only Requirement

Non- Applicability Description

Compliance Plan ☐ Continuation Sheet(s)

For any emission units which are <u>not in compliance</u> at the time of permit application, the applicant shall complete the following:

Consent Order		Certified progress reports are to be submitted every 6 months beginning / /

Emission Unit	Process	Emission Source	Applicable Federal Requirement									
			Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.

Remedial Measures and Intermediate Milestones	R/I	Date Scheduled

New York State Department of Environmental Conservation
Air Permit Application

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Request for Emission Reduction Credits

☐ Continuation Sheet(s)

Emission Source

Emission Reduction Description

Contaminant Emission Reduction Data

Baseline Period ____/____/_____ to ____/____/_____

Reduction	
Date	Method

CAS Number	Contaminant Name	ERC (lbs/yr)	
		Netting	Offset

Facility to Use Future Reduction

Name | Application ID: - - /

Location Address

City/ Town / Village | State | Zip

Use of Emission Reduction Credits

☐ Continuation Sheet(s)

Emission Source

Proposed Project Description

Contaminant Emissions Increase Data

CAS Number	Contaminant Name	Project Emission Potential (lbs/yr)

Statement of Compliance

☐ All facilities under the ownership of this "owner/firm" are operating in compliance with all applicable requirements and state regulations including any compliance certification requirements under Section 114(a)(3) of the Clean Air Act Amendments of 1990, or are meeting the schedule of a consent order.

Source of Emission Reduction Credit - Facility

Name | Permit ID: - - /

Location Address

City/ Town / Village | State | Zip

Emission Source	CAS Number	Contaminant Name	ERC (lbs/yr)	
			Netting	Offset

DEC ID
- -

Supporting Documentation and Attachments	
Required Supporting Documentation	Date of Document
☐ List of Exempt Activities (attach form)	
☒ Plot Plan	2022-10-14
☐ Process Flow Diagram	
☒ Methods Used to Determine Compliance (attach form)	2022-10-14
☒ Emissions Calculations	2023-03-13
Optional Supporting Documentation	Date of Document
☐ Air Quality Model	
☐ Confidentiality Justification	
☐ Ambient Air Quality Monitoring Plan or Reports	
☐ Stack Test Protocol	
☐ Stack Test Report	
☐ Continuous Emissions Monitoring Plan	
☐ Lowest Achievable Emission Rate (LAER) Demonstration	
☐ Best Available Control Technology (BACT) Demonstration	
☐ Reasonably Available Control Technology (RACT) Demonstration	
☐ Toxic Impact Assessment (TIA)	
☐ Environmental Rating Demonstration	
☐ Operational Flexibility Protocol/Description of Alternate Operating Scenarios	
☐ Title IV Permit Application	
☐ Emission Reduction Credit (ERC) Quantification (attach form)	
☐ Baseline Period Demonstration	
☐ Use of Emission Reduction Credits (attach form)	
☐ Analysis of Contemporaneous Emissions Increase/Decrease	
Other Supporting Documentation	Date of Document
Figure 1 - Site Location Map	2022-10-14
Figure 2 - Site Plan and Part 212 Process Source Emission Point Locations	2022-10-14
Attachment D - Part 212 Compliance Demonstration (Modeling Report R7)	2023-03-13
Attachment E - Coating Air Quality Data Sheets	2022-10-14
Attachment F - Material Data Sheets	2022-10-14
Attachment G - Equipment Technical Data Sheets	2022-10-14
Attachment H - Revised CLCPA Analysis	2023-03-13

ATTACHMENT A

NYSDEC Air State Facility Permit Application
Section III – Facility Information
(continuation sheets)

DEC ID
-	-

Section III - Facility Information

Facility Description (continuation)

The Offshore Wind Tower and Transition Piece Manufacturing Facility will be constructed at the Port of Albany, New York to support expansion of offshore wind energy on the East Coast. The facility will be designed to produce 150 towers per year or a combination of 100 towers and 100 transition pieces. Transition pieces are the lower support structures made up of heavy steel fabrication, which lie beneath the offshore wind towers and connect them to the foundation.

The facility will employ highly automated, state-of-the-art equipment to manufacture towers and transition pieces. Manufacturing activities include cutting and beveling of steel plates, plate descaling (plate blast), rolling machines, welding, abrasive blasting (tower blast), thermal spray coating (metallization) and surface coating using fully automated and hand held airless spray guns. Cutting and beveling, as well as rolling and welding equipment are fueled by natural gas (oxyfuel). The facility also includes three (3) natural gas-fired emergency generators and two (2) diesel-fired emergency fire pumps.

Machining, abrasive blasting, welding and grinding activities are subject to 6NYCRR Part 212 and federal MACT Subpart XXXXXX. The plate blast and tower blast booth will be equipped with dust collectors and fabric filters for particulate control. Metallizing activities are subject to 6NYCRR Part 212. Surface coating activities are subject to 6NYCRR Part 212 and 6NYCRR Subpart 228-1. Surface coating activities will occur in a "large" booth and a "small" booth. Both the large and small booths will be equipped with staged filtration systems for particulate control and a recuperative thermal oxidizer (RTO) to meet VOC control requirements of Subpart 228-1.

The facility is restricting its VOC and HAP emissions to less than the major source thresholds and is capping out of the applicable requirements of 6NYCRR Subpart 201-6.

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section III - Facility Information

Facility Applicable Federal Requirements (continuation)									
Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR		201-7						
6	NYCRR			211.1					

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section III - Facility Information

Facility State Only Requirements (continuation)									
Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
17	ECL		19-0301						
6	NYCRR			201-1.4					
6	NYCRR			201-5.2	(c)				
6	NYCRR			201-5.3	(c)				
6	NYCRR			211.2					

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section III - Facility Information

Facility Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR		201-7						

		CAS No.	Contaminant Name
☒ Applicable Federal Requirement ☐ State Only Requirement	☒ Capping	0NY100-00-0	Total HAP

Monitoring Information

☐ Continuous Emission Monitoring	☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Intermittent Emission Testing	☐ Work Practice Involving Specific Operations
☐ Ambient Air Monitoring	☒ Record Keeping/Maintenance Procedures

Description

Facility-wide total (combined) annual HAP emissions shall be limited to 5.0 tpy for any consecutive 12-month period. Individual HAP emissions shall be limited to 3.0 tpy for any consecutive 12-month period.

The facility shall calculate usage of materials and calculate aggregate HAP emissions from monthly usage of abrasive media and coatings as applied and and calculate total HAP emissions on a monthly and 12-month rolling basis. The facility shall maintain records verifying the emissions calculations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Parameter Code	Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
85	12-MO AVERAGE - ROLLED MONTHLY	05	monthly	15	annually (calendar)

ATTACHMENT A

NYSDEC Air State Facility Permit Application
Section IV – Emission Unit U-PBLST
(continuation sheets)

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
	-					-					

Section IV - Emission Unit Information

Emission Unit Description (continuation)								
Emission Unit	U	-	P	B	L	S	T	

Roller conveyor wheel blast machine rated at 30,000 lbs/hr abrasive media throughput, designed for continuous operation for the purpose of plate descaling (rust removal). The plate blast machine uses steel shot as the abrasive media and will be equipped with a dust collector and fabric filter media for particulate control. The dust collector discharges outdoors.

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID											
	-					-					

Section IV - Emission Unit Information

Building (continuation)					
Emission Unit	Building ID	Building Name	Length (ft)	Width (ft)	Orientation
U-PBLST	BLDG A	Plate Preparation and Weldings	1050	315	300

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Point Information (continuation)						
Emission Unit	U - P B L S T				Emission Point	0 0 0 1 A
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^{o}F)	Cross Section Length (in)	Cross Section Width (in)
9	30	-45		75	48	48
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
9.8	9417	601.198	4717.336	BLDG A	72	
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^{o}F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^{o}F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^{o}F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^{o}F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Source/Control (continuation)

Emission Unit: U - P B L S T

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
PBLAST	I	Apr 2022	Oct 2023				SciTeeX/RS-RC 4220

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
30000	3	pounds abrasive media (steel shot) per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
PBLSTFLTR	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
9400	0156	SCFM average airflow				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U - P B L S T	Process	0 0 1

Description

Roller conveyor wheel blast machine rated at 30,000 lbs/hr abrasive media throughput, designed for continuous operation for the purpose of plate descaling (rust removal). The plate blast machine uses steel shot as the abrasive media and will be equipped with a dust collector and fabric filter media.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30900207	30000		26	pounds

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG A	Plate Blast

Emission Point Identifier(s)

0001A						

Emission Source/Control Identifier(s)

PBLAST	PBLSTFLTR					

Emission Unit	-	Process	

Description

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

☐ Confidential ☐ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
-	-

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-PBLST	0001A	001		40	CFR	63	XXXXXX	63.11514	(b)	(1)			
U-PBLST	0001A	001		40	CFR	63	XXXXXX	63.11515	(b)				
U-PBLST	0001A	001		40	CFR	63	XXXXXX	63.11516	(a)	(3)			
U-PBLST	0001A	001		40	CFR	63	XXXXXX	63.11517	(b)				
U-PBLST	0001A	001		40	CFR	63	XXXXXX	63.11519	(a)	(1), (2)			
U-PBLST	0001A	001		40	CFR	63	XXXXXX	63.11519	(b), (c)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
-         -

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-PBLST	0001A	001		6	NYCRR	212	212-1	212-1.5	(g)				
U-PBLST	0001A	001		6	NYCRR	212	212-1	212-1.5	(e)	(2)			
U-PBLST	0001A	001		6	NYCRR	212	212-1	212-1.6	(a)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(a)	(3)	(i)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

You must take measures necessary to minimize excess dust in the surrounding area to reduce metal fabrication HAP (manganese) emissions, as practicable; and

You must enclose abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive material; and

You must operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions; and

You must not re-use abrasive blasting media unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		03	daily	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(a)	(3)	(ii)-(iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

For abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension that is performed indoors, you must perform visual determinations of fugitive emissions at the primary vent, stack, exit, or opening from the building containing the abrasive blasting operations.

You must keep a record of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in § 63.11519(c)(2).

If visible fugitive emissions are detected, you must perform corrective actions until the visible fugitive emissions are eliminated, at which time you must:

Perform a follow-up inspection for visible fugitive emissions in accordance with § 63.11517(a).

You must report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, with your annual certification and compliance report as required by § 63.11519(b)(5).

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
				16	as required - see monitoring description

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11517	(b)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Visual determination of fugitive emissions, graduated schedule. Visual determinations of fugitive emissions must be performed in accordance with paragraph (a) of this section and according to the schedule in paragraphs (b)(1) through (4) of this section.

Daily Method 22 Testing. Perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process.

Weekly Method 22 Testing. If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with paragraph (b)(1) of this section for 10 days of work day operation of the process, you may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, you must resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with paragraph (b)(1) of this section.

Monthly Method 22 Testing. If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with paragraph (b)(2) of this section, you may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, you must resume weekly EPA Method 22 in accordance with paragraph (b)(2) of this section.

Quarterly Method 22 Testing. If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with paragraph (b)(3) of this section, you may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, you must resume monthly EPA Method 22 in accordance with paragraph (b)(3) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description		

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(1)	(i)-(iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Initial notification. You must submit the initial notification required by § 63.9(b), for a new affected source no later than 120 days after initial startup. Your initial notification must provide the following information:

The name, address, phone number and e-mail address of the owner and operator;

The address (physical location) of the affected source;

An identification of the relevant standard (i.e., this subpart); and

A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(2)	(i)-(ii), (iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Notification of compliance status. If you are the owner or operator of a new affected source, you must submit a notification of compliance status within 120 days after initial startup. You are required to submit the following information with your notification of compliance status:

Your company's name and address;

A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart;

The date of the notification of compliance status.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(b)	(1), (2)			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Annual certification and compliance reports. You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2), (b)(4) and b(5) of this section.

Dates. Unless the Administrator has approved or agreed to a different schedule for submission of reports under § 63.10(a), you must prepare and submit each annual certification and compliance report according to the dates specified in paragraphs (b)(2)(i) through (iii) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

The first annual certification and compliance report must cover the first annual reporting period which begins the day after the compliance date and ends on December 31.

Each subsequent annual certification and compliance report must cover the subsequent semiannual reporting period from January 1 through December 31.

Each annual certification and compliance report must be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an exceedence has occurred during the year, each annual certification and compliance report must be submitted along with the exceedence reports, and postmarked or delivered no later than January 31.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(b)	(4), (5)			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

General requirements. The annual certification and compliance report must contain the information specified in paragraphs (b)(4)(i) through (iii) of this section, and the information specified in paragraphs (b)(5) through (7) of this section that is applicable to each affected source.

The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;

A description of the corrective actions taken subsequent to the test; and

The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(c)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

What records must I keep? You must collect and keep records of the data and information specified in paragraphs (c)(1) through (13) of this section, according to the requirements in paragraph (c)(14) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(g)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

At all times, the facility owner or operator must operate and maintain all process emission sources, including the associated air pollution control and monitoring equipment, in a manner consistent with safety, good air pollution control practices, good engineering practices and manufacturers' recommendations for minimizing emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(e)	(2)			

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR part 61 or part 63 (see table 1 of section 200.9 of this Title) satisfies the requirements of this Part for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the process emission source is in compliance with the relevant Federal regulation and, for those NESHAPs regulating HTACs found in section 212-2.2, table 2 – high toxicity air contaminant list, of this Part, provide a TIA demonstrating that the maximum offsite ambient air concentration is less than the AGC/SGC and that emissions are less than the PB trigger for the respective air contaminant.

Facility owners or operators required to submit a TIA shall submit a protocol describing the procedures to be used to predict the maximum offsite ambient air concentration. Once the protocol is approved by the department and the TIA is conducted, the facility owner or operator shall submit a final report to the department along with the air dispersion modeling results for approval. The department requires the use of an EPA approved air dispersion model for all screening and/or refined air dispersion modeling assessments; however, screen dispersion models do not require an approved modeling protocol.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		17	once during the term of the permit	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.6	(a)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-PBLST	0001A	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Process Emissions Summary (continuation)

Emission Unit U-PBLST | Process 001

CAS No.	Contaminant Name	% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
NY075-00-5	PM-10		100	99	30.0	02

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)
0.300	2628			02	< 0.300	< 2628

Emission Unit U-PBLST | Process 001

CAS No.	Contaminant Name	% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
NY750-02-5	PM-2.5		100	99	30.0	02

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)
0.300	2628			02	< 0.300	< 2628

Emission Unit U-PBLST | Process 001

CAS No.	Contaminant Name	% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
7439-96-5	Manganese	1	100	99	0.360	02

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)
3.60E-03	31.5			02	< 3.60E-03	< 31.5

Emission Unit - | Process

CAS No.	Contaminant Name	% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)

Emission Unit - | Process

CAS No.	Contaminant Name	% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined

PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined	Actual (lbs/hr)	Actual (lbs/yr)

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit: U-PBLST	Emission Unit Emissions Summary (continuation)			
CAS Number	Contaminant Name			
NY075-00-5	PM-10			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
262800	0.300	2628	< 0.300	< 2628
CAS Number	Contaminant Name			
NY750-02-5	PM-2.5			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
262800	0.300	2628	< 0.300	< 2628
CAS Number	Contaminant Name			
7439-96-5	Manganese			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
3154	3.60E-03	31.5	< 3.60E-03	< 31.5
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)

Continuation Sheet ____ of ____

ATTACHMENT A

NYSDEC Air State Facility Permit Application
Section IV – Emission Unit U-MFR_A
(continuation sheets)

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
-	-

Section IV - Emission Unit Information

Emission Unit Description (continuation)	
Emission Unit	U-MFR_A

U-MFR_A includes machining, welding and grinding of steel plates and flanges inside Building A. Machining equipment (plasma arc cutting, preheating, rolling) as well as welding activities utilize oxyfuel and electricity for power.

Welding techniques employed will consist of metal inert gas (MIG), submerged arc welding (SAW), gas metal arc welding (GMAW), and flux-cored arc welding (FCAW).

All activities are performed indoors but have the potential to be released outdoors via Building A ventilation system vents. Potential emissions may be released from building vents due to the combustion of oxyfuel and fumes related to machining, welding and grinding activities. The building ventilation system will be equipped with fabric filters for control of particulates.

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Building (continuation)					
Emission Unit	Building ID	Building Name	Length (ft)	Width (ft)	Orientation
U-MFR_A	BLDG A	Plate Preparation and Weldings	1050	315	300

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Point Information (continuation)

Emission Unit	U-MFR_A	Emission Point	VNT1A

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
8	92	7	36.4	70	n/a	n/a

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
47.3	20496	601.334	4717.114	BLDG A	150	

Emission Unit	U-MFR_A	Emission Point	VNT2A

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
9	92	7	36.4	70	n/a	n/a

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
47.3	20496	601.313	4717.165	BLDG A	250	

Emission Unit	U-MFR_A	Emission Point	VNT3A

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
9	92	7	36.4	70	n/a	n/a

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
47.3	20496	601.291	4717.215	BLDG A	210	

Emission Unit	U-MFR_A	Emission Point	VNT4A

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
9	73	6.5	28.4	70	n/a	n/a

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
23.6	6210	601.273	4717.259	BLDG A	195	

Emission Unit	U-MFR_A	Emission Point	VNT5A

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section	
					Length (in)	Width (in)
9	73	6.5	28.4	70	n/a	n/a

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
23.6	6210	601.228	4717.363	BLDG A	230	

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Point Information (continuation)						
Emission Unit	U-MFR_A				Emission Point	VNT6A
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	73	6.5	28.4	70	n/a	n/a
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
23.6	6210	601.228	4717.363	BLDG A	200	
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Source/Control (continuation)

Emission Unit: U-MFR_A

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
MACHINING_A	I	Apr 2022	Oct 2023				

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
150		complete towers per year (each tower consists of 3 tower sections)				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
WELD_A	I	Apr 2022	Oct 2023				

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
150		complete towers per year (each tower consists of 3 tower sections)				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
GRIND_A	I	Apr 2022	Oct 2023				

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
150		complete towers per year (each tower consists of 3 tower sections)				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
FABRIC_A	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
20496	39	cubic feet per minute				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U - M F R _ A	Process	M A C

Description

Various machining (oxyfuel cutting, oxyfuel preheating, rolling) of steel plates and flanges in designated work stations throughout Building A.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30904600		8760	0083	hours of operation

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG A	

Emission Point Identifier(s)

VNT1A	VNT2A	VNT3A	VNT4A	VNT5A	VNT6A	

Emission Source/Control Identifier(s)

MACHINING_A	FABRIC_A					

Emission Unit	U - M F R _ A	Process	W E L

Description

Various oxyfuel welding activities (MIG, SAW, GMAW, FCAW) in designated work stations throughout Building A.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30904400	44480	6672000	0103	lbs welding rod used

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG A	

Emission Point Identifier(s)

VNT1A	VNT2A	VNT3A	VNT4A	VNT5A	VNT6A	

Emission Source/Control Identifier(s)

WELD_A	FABRIC_A					

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U - M F R _ A	Process	G R I

Description

Belt sanding activities in designated work stations throughout Building A.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30900198		8760	0083	hours of operation

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG A	

Emission Point Identifier(s)

VNT1A	VNT2A	VNT3A	VNT4A	VNT5A	VNT6A	

Emission Source/Control Identifier(s)

GRIND_A						

Emission Unit	-	Process

Description

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

☐ Confidential ☐ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
-	-

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-MFR_A		MAC		40	CFR	63	XXXXXX	63.11514	(b)	(2)			
U-MFR_A		MAC		40	CFR	63	XXXXXX	63.11516	(b)				
U-MFR_A		WEL		40	CFR	63	XXXXXX	63.11514	(b)	(5)			
U-MFR_A		WEL		40	CFR	63	XXXXXX	63.11516	(f)				
U-MFR_A	VNT1A-VNT6A	WEL		40	CFR	63	XXXXXX	63.11517	(b)				
U-MFR_A		GRI		40	CFR	63	XXXXXX	63.11514	(b)	(3)			
U-MFR_A		GRI		40	CFR	63	XXXXXX	63.11516	(c)				
U-MFR_A				40	CFR	63	XXXXXX	63.11515	(b)				
U-MFR_A				40	CFR	63	XXXXXX	63.11519	(a)	(1), (2)			
U-MFR_A				40	CFR	63	XXXXXX	63.11519	(b), (c)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-MFR_A				6	NYCRR	212	212-1	212-1.5	(g)				
U-MFR_A				6	NYCRR	212	212-1	212-1.5	(e)	(2)			
U-MFR_A				6	NYCRR	212	212-1	212-1.6	(a)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(1)	(i)-(iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Initial notification. You must submit the initial notification required by § 63.9(b), for a new affected source no later than 120 days after initial startup. Your initial notification must provide the following information:

The name, address, phone number and e-mail address of the owner and operator;

The address (physical location) of the affected source;

An identification of the relevant standard (i.e., this subpart); and

A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(2)	(i)-(ii), (iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Notification of compliance status. If you are the owner or operator of a new affected source, you must submit a notification of compliance status within 120 days after initial startup. You are required to submit the following information with your notification of compliance status:

Your company's name and address;

A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart;

The date of the notification of compliance status.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(b)	(1)			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Annual certification and compliance reports. You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2) through (7) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(c)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

What records must I keep? You must collect and keep records of the data and information specified in paragraphs (c)(1) through (13) of this section, according to the requirements in paragraph (c)(14) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(b)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A		MAC		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Standards for machining. If you own or operate a new or existing machining affected source, you must implement management practices to minimize emissions of MFHAP as specified in paragraph (b)(1) and (2) of this section for each machining operation that uses materials that contain MFHAP, as defined in § 63.11522, or has the potential to emit MFHAP. These requirements do not apply when machining operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.

(1) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and

(2) You must operate all equipment associated with machining according to manufacturer's instructions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(f)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A		WEL		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Standards for welding. If you own or operate a new or existing welding affected source, you must comply with the requirements in paragraphs (f)(1) and (2) of this section for each welding operation that uses materials that contain MFHAP, as defined in § 63.11522, or has the potential to emit MFHAP. If your welding affected source uses 2,000 pounds or more per year of welding rod containing one or more MFHAP (calculated on a rolling 12-month basis), you must demonstrate that management practices or fume control measures are being implemented by complying with the requirements in paragraphs (f)(3) through (8) of this section. The requirements in paragraphs (f)(1) through (8) of this section do not apply when welding operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11517	(b)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A	VNT1A - VNT6A	WEL		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Visual determination of fugitive emissions, graduated schedule. Visual determinations of fugitive emissions must be performed in accordance with paragraph (a) of this section and according to the schedule in paragraphs (b)(1) through (4) of this section.

Daily Method 22 Testing. Perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process.

Weekly Method 22 Testing. If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with paragraph (b)(1) of this section for 10 days of work day operation of the process, you may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, you must resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with paragraph (b)(1) of this section.

Monthly Method 22 Testing. If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with paragraph (b)(2) of this section, you may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, you must resume weekly EPA Method 22 in accordance with paragraph (b)(2) of this section.

Quarterly Method 22 Testing. If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with paragraph (b)(3) of this section, you may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, you must resume monthly EPA Method 22 in accordance with paragraph (b)(3) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description		

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(c)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A		GRI		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Standards for dry grinding and dry polishing with machines. If you own or operate a new dry grinding and dry polishing with machines affected source, you must comply with the requirements of paragraphs (c)(1) and (2) of this section for each dry grinding and dry polishing with machines operation that uses materials that contain MFHAP, as defined in § 63.11522, or has the potential to emit MFHAP. These requirements do not apply when dry grinding and dry polishing operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.
(1) You must capture emissions and vent them to a filtration control device. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in § 63.11519(c)(4).
(2) You must implement management practices to minimize emissions of MFHAP as specified in paragraphs (c)(2)(i) and (ii) of this section.
(i) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable;
(ii) You must operate all equipment associated with the operation of dry grinding and dry polishing with machines, including the filtration control device, according to manufacturer's instructions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(g)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A					

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

At all times, the facility owner or operator must operate and maintain all process emission sources, including the associated air pollution control and monitoring equipment, in a manner consistent with safety, good air pollution control practices, good engineering practices and manufacturers' recommendations for minimizing emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(e)	(2)			

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR part 61 or part 63 (see table 1 of section 200.9 of this Title) satisfies the requirements of this Part for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the process emission source is in compliance with the relevant Federal regulation and, for those NESHAPs regulating HTACs found in section 212-2.2, table 2 – high toxicity air contaminant list, of this Part, provide a TIA demonstrating that the maximum offsite ambient air concentration is less than the AGC/SGC and that emissions are less than the PB trigger for the respective air contaminant.

Facility owners or operators required to submit a TIA shall submit a protocol describing the procedures to be used to predict the maximum offsite ambient air concentration. Once the protocol is approved by the department and the TIA is conducted, the facility owner or operator shall submit a final report to the department along with the air dispersion modeling results for approval. The department requires the use of an EPA approved air dispersion model for all screening and/or refined air dispersion modeling assessments; however, screen dispersion models do not require an approved modeling protocol.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		17	once during the term of the permit	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.6	(a)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_A					

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

Continuation Sheet ____ of ____

ATTACHMENT A

NYSDEC Air State Facility Permit Application
Section IV – Emission Unit U-MFR_B
(continuation sheets)

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
-	-

Section IV - Emission Unit Information

Emission Unit Description (continuation)								
Emission Unit	U	-	M	F	R	_	B	

U-MFR_B includes machining, welding and grinding of steel plates and flanges inside Building B. Machining equipment (plasma arc cutting, preheating, rolling) as well as welding activities utilize oxyfuel and electricity for power.

Welding techniques employed will consist of metal inert gas (MIG), submerged arc welding (SAW), gas metal arc welding (GMAW), and flux-cored arc welding (FCAW).

All activities are performed indoors but have the potential to be released outdoors via Building B ventilation system vents. Potential emissions may be released from building vents due to the combustion of oxyfuel and fumes related to machining, welding and grinding activities. The building ventilation system will be equipped with fabric filters for control of particulates.

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Building (continuation)					
Emission Unit	Building ID	Building Name	Length (ft)	Width (ft)	Orientation
U-MFR_B	BLDG B	Welding-Finishing	730	205	70

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Point Information (continuation)

Emission Unit	U-MFR_B	Emission Point	VNT1B

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	75	4		70	64	64

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
10.4	17800	601.222	4717.516	BLDG B	410	

Emission Unit	U-MFR_B	Emission Point	VNT2B

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	72	3		70	64	64

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
10.4	17800	601.203	4717.509	BLDG B	345	

Emission Unit	U-MFR_B	Emission Point	VNT3B

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	69	4		70	64	64

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
10.4	17800	601.186	4717.501	BLDG B	280	

Emission Unit	U-MFR_B	Emission Point	VNT4B

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	66	3		70	64	64

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
10.4	17800	601.169	4717.494	BLDG B	225	

Emission Unit	U-MFR_B	Emission Point	VNT5B

Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	64	3		70	64	64

Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
10.4	17800	601.152	47170.487	BLDG B	170	

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Point Information (continuation)						
Emission Unit	U-MFR_B			Emission Point	VNT6B	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	61	4		70	64	64
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
10.4	17800	601.133	4717.479	BLDG B	105	
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Source/Control (continuation)

Emission Unit: U - M F R _ B

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
MACHINING_B	I	Apr 2022	Oct 2023				

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
150		complete towers per year (each tower consists of 3 tower sections)				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
WELD_B	I	Apr 2022	Oct 2023				

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
150		complete towers per year (each tower consists of 3 tower sections)				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
GRIND_B	I	Apr 2022	Oct 2023				

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
150		complete towers per year (each tower consists of 3 tower sections)				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
FABRIC_B	K	Apr 2022	Oct 2023				See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
18000	39	cubic feet per minute				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U - M F R _ B	Process	M A C

Description

Various machining (oxyfuel cutting, oxyfuel preheating, rolling) of steel plates and flanges in designated work stations throughout Building B.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30904600		8760	0083	hours of operation

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG B	

Emission Point Identifier(s)

VNT1B	VNT2B	VNT3B	VNT4B	VNT5B	VNT6B	

Emission Source/Control Identifier(s)

MACHINING_B	FABRIC_B					

Emission Unit	U - M F R _ B	Process	W E L

Description

Various oxyfuel welding activities (MIG, SAW, GMAW, FCAW) in designated work stations throughout Building B.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30904400	44480	6672000	0103	lbs welding rod used

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG B	

Emission Point Identifier(s)

VNT1B	VNT2B	VNT3B	VNT4B	VNT5B	VNT6B	

Emission Source/Control Identifier(s)

WELD_B	FABRIC_B					

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U - M F R _ B	Process	G R I

Description

Belt sanding activities in designated work stations throughout Building B.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30900198		8760	0083	hours of operation

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG B	

Emission Point Identifier(s)

VNT1B	VNT2B	VNT3B	VNT4B	VNT5B	VNT6B	

Emission Source/Control Identifier(s)

GRIND_B						

Emission Unit	-	Process	

Description

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

☐ Confidential ☐ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
-	-

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-MFR_B		MAC		40	CFR	63	XXXXXX	63.11514	(b)	(2)			
U-MFR_B		MAC		40	CFR	63	XXXXXX	63.11516	(b)				
U-MFR_B		WEL		40	CFR	63	XXXXXX	63.11514	(b)	(5)			
U-MFR_B		WEL		40	CFR	63	XXXXXX	63.11516	(f)				
U-MFR_B	VNT1A-VNT6A	WEL		40	CFR	63	XXXXXX	63.11517	(b)				
U-MFR_B		GRI		40	CFR	63	XXXXXX	63.11514	(b)	(3)			
U-MFR_B		GRI		40	CFR	63	XXXXXX	63.11516	(c)				
U-MFR_B				40	CFR	63	XXXXXX	63.11515	(b)				
U-MFR_B				40	CFR	63	XXXXXX	63.11519	(a)	(1), (2)			
U-MFR_B				40	CFR	63	XXXXXX	63.11519	(b), (c)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-MFR_B				6	NYCRR	212	212-1	212-1.5	(g)				
U-MFR_B				6	NYCRR	212	212-1	212-1.5	(e)	(2)			
U-MFR_B				6	NYCRR	212	212-1	212-1.6	(a)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(1)	(i)-(iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Initial notification. You must submit the initial notification required by § 63.9(b), for a new affected source no later than 120 days after initial startup. Your initial notification must provide the following information:

The name, address, phone number and e-mail address of the owner and operator;

The address (physical location) of the affected source;

An identification of the relevant standard (i.e., this subpart); and

A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(2)	(i)-(ii), (iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Notification of compliance status. If you are the owner or operator of a new affected source, you must submit a notification of compliance status within 120 days after initial startup. You are required to submit the following information with your notification of compliance status:

Your company's name and address;

A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart;

The date of the notification of compliance status.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(b)	(1)			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Annual certification and compliance reports. You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2) through (7) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(c)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

What records must I keep? You must collect and keep records of the data and information specified in paragraphs (c)(1) through (13) of this section, according to the requirements in paragraph (c)(14) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(b)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B		MAC		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Standards for machining. If you own or operate a new or existing machining affected source, you must implement management practices to minimize emissions of MFHAP as specified in paragraph (b)(1) and (2) of this section for each machining operation that uses materials that contain MFHAP, as defined in § 63.11522, or has the potential to emit MFHAP. These requirements do not apply when machining operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.

(1) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable; and

(2) You must operate all equipment associated with machining according to manufacturer's instructions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(f)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B		WEL		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Standards for welding. If you own or operate a new or existing welding affected source, you must comply with the requirements in paragraphs (f)(1) and (2) of this section for each welding operation that uses materials that contain MFHAP, as defined in § 63.11522, or has the potential to emit MFHAP. If your welding affected source uses 2,000 pounds or more per year of welding rod containing one or more MFHAP (calculated on a rolling 12-month basis), you must demonstrate that management practices or fume control measures are being implemented by complying with the requirements in paragraphs (f)(3) through (8) of this section. The requirements in paragraphs (f)(1) through (8) of this section do not apply when welding operations are being performed that do not use any materials containing MFHAP or do not have the potential to emit MFHAP.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11517	(b)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B	VNT1B - VNT6B	WEL		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Visual determination of fugitive emissions, graduated schedule. Visual determinations of fugitive emissions must be performed in accordance with paragraph (a) of this section and according to the schedule in paragraphs (b)(1) through (4) of this section.

Daily Method 22 Testing. Perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process.

Weekly Method 22 Testing. If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with paragraph (b)(1) of this section for 10 days of work day operation of the process, you may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, you must resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with paragraph (b)(1) of this section.

Monthly Method 22 Testing. If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with paragraph (b)(2) of this section, you may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, you must resume weekly EPA Method 22 in accordance with paragraph (b)(2) of this section.

Quarterly Method 22 Testing. If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with paragraph (b)(3) of this section, you may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, you must resume monthly EPA Method 22 in accordance with paragraph (b)(3) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description		

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(c)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B		GRI		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Standards for dry grinding and dry polishing with machines. If you own or operate a new dry grinding and dry polishing with machines affected source, you must comply with the requirements of paragraphs (c)(1) and (2) of this section for each dry grinding and dry polishing with machines operation that uses materials that contain MFHAP, as defined in § 63.11522, or has the potential to emit MFHAP. These requirements do not apply when dry grinding and dry polishing operations are being performed that do not use any materials containing MFHAP and do not have the potential to emit MFHAP.
(1) You must capture emissions and vent them to a filtration control device. You must demonstrate compliance with this requirement by maintaining a record of the manufacturer's specifications for the filtration control devices, as specified by the requirements in § 63.11519(c)(4).
(2) You must implement management practices to minimize emissions of MFHAP as specified in paragraphs (c)(2)(i) and (ii) of this section.
(i) You must take measures necessary to minimize excess dust in the surrounding area to reduce MFHAP emissions, as practicable;
(ii) You must operate all equipment associated with the operation of dry grinding and dry polishing with machines, including the filtration control device, according to manufacturer's instructions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(g)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B					

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

At all times, the facility owner or operator must operate and maintain all process emission sources, including the associated air pollution control and monitoring equipment, in a manner consistent with safety, good air pollution control practices, good engineering practices and manufacturers' recommendations for minimizing emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(e)	(2)			

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B				7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR part 61 or part 63 (see table 1 of section 200.9 of this Title) satisfies the requirements of this Part for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the process emission source is in compliance with the relevant Federal regulation and, for those NESHAPs regulating HTACs found in section 212-2.2, table 2 – high toxicity air contaminant list, of this Part, provide a TIA demonstrating that the maximum offsite ambient air concentration is less than the AGC/SGC and that emissions are less than the PB trigger for the respective air contaminant.

Facility owners or operators required to submit a TIA shall submit a protocol describing the procedures to be used to predict the maximum offsite ambient air concentration. Once the protocol is approved by the department and the TIA is conducted, the facility owner or operator shall submit a final report to the department along with the air dispersion modeling results for approval. The department requires the use of an EPA approved air dispersion model for all screening and/or refined air dispersion modeling assessments; however, screen dispersion models do not require an approved modeling protocol.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		17	once during the term of the permit	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.6	(a)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-MFR_B					

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

Continuation Sheet ____ of ____

ATTACHMENT A

NYSDEC Air State Facility Permit Application
Section IV – Emission Unit U-TBLST
(continuation sheets)

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
	-					-					

Section IV - Emission Unit Information

Emission Unit Description (continuation)								
Emission Unit	U	-	T	B	L	S	T	

Fully enclosed blast room rated at 3,500 lbs/hr abrasive media throughput for the purpose of tower and transition piece descaling (rust, oxide removal). The tower blast room uses steel shot as the abrasive media and will be equipped with a dust collector and fabric filter media for particulate control. The dust collector discharges outdoors.

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Building (continuation)					
Emission Unit	Building ID	Building Name	Length (ft)	Width (ft)	Orientation
U-TBLST	BLDG C	Blast-Metallization-Paint	732	170	10

Continuation Sheet ____ of ____

DEC ID
- -

Section IV - Emission Unit Information

Emission Point Information (continuation)

Emission Unit	U-TBLST				Emission Point	0001C
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^oF)	Cross Section Length (in)	Cross Section Width (in)
8	85	10	35.5	75		
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
59.9	24720	601.123	4717.802	BLDG C	100	

Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^oF)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^oF)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^oF)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (^oF)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Source/Control (continuation)								
Emission Unit	U-TBLST							
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
TBLAST	I	Apr 2022	Oct 2023				SciTeeX/BLASTLUX PC-BL 671414	
Design Capacity	Design Capacity Units		Waste Feed		Waste Type			
	Code	Description	Code	Description	Code	Description		
3500	3	pounds abrasive media (steel shot) per hour						
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
TBLSTFLTR	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G	
Design Capacity	Design Capacity Units		Waste Feed		Waste Type			
	Code	Description	Code	Description	Code	Description		
24800	0156	SCFM average airflow						
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units		Waste Feed		Waste Type			
	Code	Description	Code	Description	Code	Description		
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units		Waste Feed		Waste Type			
	Code	Description	Code	Description	Code	Description		
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units		Waste Feed		Waste Type			
	Code	Description	Code	Description	Code	Description		
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.	
ID	Type				Code	Description		
Design Capacity	Design Capacity Units		Waste Feed		Waste Type			
	Code	Description	Code	Description	Code	Description		

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U - T B L S T	Process	0 0 1

Description

Fully enclosed blast room rated at 3,500 lbs/hr abrasive media throughput for the purpose of tower and transition piece descaling (rust, oxide removal). The tower blast room uses steel shot as the abrasive media and will be equipped with a dust collector and fabric filter media for particulate control. The dust collector discharges outdoors.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30900207	3500		26	pounds

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG C	Tower Blast Booth

Emission Point Identifier(s)

0001C						

Emission Source/Control Identifier(s)

TBLAST	TBLSTFLTR					

Emission Unit	-	Process	

Description

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

☐ Confidential ☐ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
-	-

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-TBLST	0001C	001		40	CFR	63	XXXXXX	63.11514	(b)	(1)			
U-TBLST	0001C	001		40	CFR	63	XXXXXX	63.11515	(b)				
U-TBLST	0001C	001		40	CFR	63	XXXXXX	63.11516	(a)	(3)			
U-TBLST	0001C	001		40	CFR	63	XXXXXX	63.11517	(b)				
U-TBLST	0001C	001		40	CFR	63	XXXXXX	63.11519	(a)	(1), (2)			
U-TBLST	0001C	001		40	CFR	63	XXXXXX	63.11519	(b), (c)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-TBLST	0001C	001		6	NYCRR	212	212-1	212-1.5	(g)				
U-TBLST	0001C	001		6	NYCRR	212	212-1	212-1.5	(e)	(2)			
U-TBLST	0001C	001		6	NYCRR	212	212-1	212-1.6	(a)				

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(a)	(3)	(i)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

You must take measures necessary to minimize excess dust in the surrounding area to reduce metal fabrication HAP (manganese) emissions, as practicable; and

You must enclose abrasive material storage areas and holding bins, seal chutes and conveyors that transport abrasive material; and

You must operate all equipment associated with dry abrasive blasting operations according to manufacturer's instructions; and

You must not re-use abrasive blasting media unless contaminants (i.e., any material other than the base metal, such as paint residue) have been removed by filtration or screening, and the abrasive material conforms to its original size.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		03	daily	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11516	(a)	(3)	(ii)-(iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

For abrasive blasting of objects greater than 8 feet (2.4 meters) in any one dimension that is performed indoors, you must perform visual determinations of fugitive emissions at the primary vent, stack, exit, or opening from the building containing the abrasive blasting operations.

You must keep a record of all visual determinations of fugitive emissions along with any corrective action taken in accordance with the requirements in § 63.11519(c)(2).

If visible fugitive emissions are detected, you must perform corrective actions until the visible fugitive emissions are eliminated, at which time you must:

Perform a follow-up inspection for visible fugitive emissions in accordance with § 63.11517(a).

You must report all instances where visible emissions are detected, along with any corrective action taken and the results of subsequent follow-up inspections for visible emissions, with your annual certification and compliance report as required by § 63.11519(b)(5).

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
				16	as required - see monitoring description

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11517	(b)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☐ Record Keeping/Maintenance Procedures

Description

Visual determination of fugitive emissions, graduated schedule. Visual determinations of fugitive emissions must be performed in accordance with paragraph (a) of this section and according to the schedule in paragraphs (b)(1) through (4) of this section.

Daily Method 22 Testing. Perform visual determination of fugitive emissions once per day, on each day the process is in operation, during operation of the process.

Weekly Method 22 Testing. If no visible fugitive emissions are detected in consecutive daily EPA Method 22 tests, performed in accordance with paragraph (b)(1) of this section for 10 days of work day operation of the process, you may decrease the frequency of EPA Method 22 testing to once every five days of operation of the process (one calendar week). If visible fugitive emissions are detected during these tests, you must resume EPA Method 22 testing of that operation once per day during each day that the process is in operation, in accordance with paragraph (b)(1) of this section.

Monthly Method 22 Testing. If no visible fugitive emissions are detected in four consecutive weekly EPA Method 22 tests performed in accordance with paragraph (b)(2) of this section, you may decrease the frequency of EPA Method 22 testing to once per 21 days of operation of the process (one calendar month). If visible fugitive emissions are detected during these tests, you must resume weekly EPA Method 22 in accordance with paragraph (b)(2) of this section.

Quarterly Method 22 Testing. If no visible fugitive emissions are detected in three consecutive monthly EPA Method 22 tests performed in accordance with paragraph (b)(3) of this section, you may decrease the frequency of EPA Method 22 testing to once per 60 days of operation of the process (3 calendar months). If visible fugitive emissions are detected during these tests, you must resume monthly EPA Method 22 in accordance with paragraph (b)(3) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
69	visible emissions	

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description		

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(1)	(i)-(iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Initial notification. You must submit the initial notification required by § 63.9(b), for a new affected source no later than 120 days after initial startup. Your initial notification must provide the following information:

The name, address, phone number and e-mail address of the owner and operator;

The address (physical location) of the affected source;

An identification of the relevant standard (i.e., this subpart); and

A brief description of the type of operation. For example, a brief characterization of the types of products (e.g., aerospace components, sports equipment, etc.), the number and type of processes, and the number of workers usually employed.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(a)	(2)	(i)-(ii), (iv)		

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Notification of compliance status. If you are the owner or operator of a new affected source, you must submit a notification of compliance status within 120 days after initial startup. You are required to submit the following information with your notification of compliance status:

Your company's name and address;

A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart;

The date of the notification of compliance status.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(b)	(1), (2)			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Annual certification and compliance reports. You must prepare and submit annual certification and compliance reports for each affected source according to the requirements of paragraphs (b)(2), (b)(4) and b(5) of this section.

Dates. Unless the Administrator has approved or agreed to a different schedule for submission of reports under § 63.10(a), you must prepare and submit each annual certification and compliance report according to the dates specified in paragraphs (b)(2)(i) through (iii) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

The first annual certification and compliance report must cover the first annual reporting period which begins the day after the compliance date and ends on December 31.

Each subsequent annual certification and compliance report must cover the subsequent semiannual reporting period from January 1 through December 31.

Each annual certification and compliance report must be prepared and submitted no later than January 31 and kept in a readily-accessible location for inspector review. If an exceedence has occurred during the year, each annual certification and compliance report must be submitted along with the exceedence reports, and postmarked or delivered no later than January 31.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(b)	(4), (5)			

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

General requirements. The annual certification and compliance report must contain the information specified in paragraphs (b)(4)(i) through (iii) of this section, and the information specified in paragraphs (b)(5) through (7) of this section that is applicable to each affected source.

The date of every visual determination of fugitive emissions which resulted in detection of visible emissions;

A description of the corrective actions taken subsequent to the test; and

The date and results of the follow-up visual determination of fugitive emissions performed after the corrective actions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	16	as required - see monitoring description

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX	63.11519	(c)				

☒ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

What records must I keep? You must collect and keep records of the data and information specified in paragraphs (c)(1) through (13) of this section, according to the requirements in paragraph (c)(14) of this section.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(g)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

At all times, the facility owner or operator must operate and maintain all process emission sources, including the associated air pollution control and monitoring equipment, in a manner consistent with safety, good air pollution control practices, good engineering practices and manufacturers' recommendations for minimizing emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(e)	(2)			

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

A process emission source subject to the Federal National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR part 61 or part 63 (see table 1 of section 200.9 of this Title) satisfies the requirements of this Part for the respective air contaminant regulated by the Federal standard if the facility owner or operator can demonstrate that the process emission source is in compliance with the relevant Federal regulation and, for those NESHAPs regulating HTACs found in section 212-2.2, table 2 – high toxicity air contaminant list, of this Part, provide a TIA demonstrating that the maximum offsite ambient air concentration is less than the AGC/SGC and that emissions are less than the PB trigger for the respective air contaminant.

Facility owners or operators required to submit a TIA shall submit a protocol describing the procedures to be used to predict the maximum offsite ambient air concentration. Once the protocol is approved by the department and the TIA is conducted, the facility owner or operator shall submit a final report to the department along with the air dispersion modeling results for approval. The department requires the use of an EPA approved air dispersion model for all screening and/or refined air dispersion modeling assessments; however, screen dispersion models do not require an approved modeling protocol.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		17	once during the term of the permit	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.6	(a)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-TBLST	0001C	001		7439-96-5	Manganese

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

ATTACHMENT A

NYSDEC Air State Facility Permit Application
Section IV – Emission Unit U-METAL
(continuation sheets)

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit Description (continuation)	
Emission Unit	U-METAL

Thermal spraying (metallizing) is performed using zinc based wire to apply coating to a section (or parts of the section) to offer greater protection against corrosion. The metallizing system is equipped with a portable emission capture and control system. It will be equipped with a mobile dust collector using fabric filter media for particulate control, which discharges indoors. Potential emissions may be released outdoors via building ventilation system exhaust. The building ventilation system (VNT4C) will also be equipped with a fabric filter for control of particulates.

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Building (continuation)					
Emission Unit	Building ID	Building Name	Length (ft)	Width (ft)	Orientation
U-METAL	BLDG C	Blast-Metallization-Paint	732	170	10

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Point Information (continuation)						
Emission Unit	U-METAL				Emission Point	VNT4C
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
8	69	3		70	36	36
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
10.2	5532	601.148	4717.857	BLDG C	155	
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-				Emission Point	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

DEC ID
- -

Section IV - Emission Unit Information

Emission Source/Control (continuation)

Emission Unit: U-METAL

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
METALLIZING	I	Apr 2022	Oct 2023				Thermion/Precision Arc 5.0

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
400	3	pounds per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
METALFLTR	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
Unknown	0156	SCFM average airflow				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
FABRIC_C	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
10000	39	cubic feet per minute				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U-METAL	Process	001

Description

Thermal spraying (metallizing) is performed using zinc based wire to apply coating to a section (or parts of the section) to offer greater protection against corrosion. The metallizing system is equipped with a portable emission capture and control system. It will be equipped with a mobile dust collector using fabric filter media for particulate control, which discharges indoors. Potential emissions may be released outdoors via building ventilation system exhaust.

Metallizing is performed via both manual and automated thermal spray coating.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30904500	400	3504000	26	pounds

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG C	Metallization Booth

Emission Point Identifier(s)

VNT4C						

Emission Source/Control Identifier(s)

METALLIZING	METALFLTR	FABRIC_C				

Emission Unit	-	Process	

Description

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description

☐ Confidential ☐ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		

Emission Point Identifier(s)

Emission Source/Control Identifier(s)

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-METAL		001		40	CFR	63	WWWWWW	63.11505	(a)	(2)			

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-METAL	VNT4C	001		6	NYCRR	212	212-1	212-1.5	(g)				
U-METAL	VNT4C	001		6	NYCRR	212	212-1	212-1.6	(a)				
U-METAL	VNT4C	001		6	NYCRR	212	212-2	212-2.3	(a), (b)				
U-METAL	VNT4C	001		6	NYCRR	212	212-2	212-2.4	(b)	(1)			

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	WWWWWW						

☐ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-METAL					

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The facility's thermal spraying (metallizing) process is not subject to 40 CFR 63 Subpart WWWWWW since it does not use, nor has emissions of compounds of one or more plating and polishing metal HAP, as defined in §63.11511.

Maintain an up-to-date copy of the safety data sheet for the zinc wire used at all times to demonstrate that the facility is exempt from Subpart WWWWWW.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(g)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-METAL	VNT4C	001			

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

At all times, the facility owner or operator must operate and maintain all process emission sources, including the associated air pollution control and monitoring equipment, in a manner consistent with safety, good air pollution control practices, good engineering practices and manufacturers' recommendations for minimizing emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.6	(a)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-METAL	VNT4C	001			

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-2	212-2.3, 2.4					

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-METAL	VNT4C	001	METALFLTR		

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Monitor pressure drop across booth fabric filters each operating day and maintain in accordance with manufacturer recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
63	pressure differential	TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
TBD	TBD	284	inches of water

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
61	Minimum - not to fall below stated value - see monitoring description	14	as required - see monitoring description	10	upon request by regulatory agency

ATTACHMENT A

NYSDEC Air State Facility Permit Application
Section IV – Emission Unit U-BOOTH
(continuation sheets)

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - -

Section IV - Emission Unit Information

Emission Unit Description (continuation)

Emission Unit: U-BOOTH

U-BOOTH consists of two (2) (one large and one small) enclosed paint spray booths. Each of the two booths are equipped with staged ventilation and filtration to capture and control particulate (PM-10, PM-2.5) emissions. The booths will share a single recuperative thermal oxidizer (RTO) for control of VOC and exhaust to a common stack. The RTO has a maximum design firing rate equal to 7.35 mmBtu/hr and fires natural gas as supplemental fuel (predominately used during start up). The maximum VOC/HAP loading rate to the RTO is 165 lbs per hour.

Surface coating activities are performed on tower and transition pieces using both automated and manually operated airless spray guns. Coatings are applied to the parts in a specific sequence where the inside and outside of parts are coated and cured.

The booths are equipped with integral curing modes. Thermal energy utilized in curing mode is provided by three (3) separate hot water boilers with design heat input capacities less than 10.0 mmBtu/hr each, which fire natural gas (the boilers are therefore exempt from permitting). Flue gases from the boilers discharge to atmosphere via a single common stack.

DEC ID
- -

Section IV - Emission Unit Information

Building (continuation)					
Emission Unit	Building ID	Building Name	Length (ft)	Width (ft)	Orientation
U-BOOTH	BLDG C	Blast-Metallization-Paint	732	170	10

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Point Information (continuation)

Emission Unit	U-B00TH			Emission Point	0002C	
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
9	90	8	74	115		
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
49.8	89200	601.171	4717.737	BLDG C	275	
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal
Emission Unit	-			Emission Point		
Ground Elevation (ft)	Height (ft)	Height Above Structure (ft)	Inside Diameter (in)	Exit Temp. (°F)	Cross Section Length (in)	Cross Section Width (in)
Exit Velocity (FPS)	Exit Flow (ACFM)	NYTM (E) (km)	NYTM (N) (km)	Building	Distance to Property Line (ft)	Date of Removal

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Source/Control (continuation)

Emission Unit: U-BOOTH

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
MANUAL_P1	I	Apr 2022	Oct 2023				Graco XTR Airless Spray Gun

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
86	16	gallons per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
AUTO_P1	I	Apr 2022	Oct 2023				Graco AL Automatic Airless Spray Gun

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
86	16	gallons per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
OVEN_A	I	Apr 2022	Oct 2023				Sciteex DIANA PB-DB 1201313

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
165	3	pounds VOC per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
OVEN_B	I	Apr 2022	Oct 2023				Sciteex DIANA PB-DB 1201313

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
165	3	pounds VOC per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
PBTHFLTR_A	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
Various	41	cubic feet per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
PBTHFLTR_B	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
Various	41	cubic feet per hour				

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Emission Source/Control (continuation)

Emission Unit: U-BOOTH

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
MANUAL_P2	I	Apr 2022	Oct 2023				Graco XTR Airless Spray Gun

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
86	16	gallons per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
AUTO_P2	I	Apr 2022	Oct 2023				Graco AL Automatic Airless Spray Gun

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
86	16	gallons per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
OVEN_C	I	Apr 2022	Oct 2023				Sciteex DIANA PB-DB 1201111

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
165	3	pounds VOC per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
OVEN_D	I	Apr 2022	Oct 2023				Sciteex DIANA PB-DB 1201111

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
165	3	pounds VOC per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
PBTHFLTR_C	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
Various	41	cubic feet per hour				

Emission Source ID	Emission Source Type	Date of Construction	Date of Operation	Date of Removal	Control Type Code	Control Type Description	Manufacturer's Name/Model No.
PBTHFLTR_D	K	Apr 2022	Oct 2023		016	fabric filter	See Attachment G

Design Capacity	Design Capacity Units Code	Design Capacity Units Description	Waste Feed Code	Waste Feed Description	Waste Type Code	Waste Type Description
Various	41	cubic feet per hour				

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Source/Control (continuation)							
Emission Unit	U-BOOTH						
Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	
RTO_1	K	Apr 2022	Oct 2023		127	thermal oxidation	CCM RC-90000-RTO-10000-M-97-2C

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description
7350000	200	British thermal units per hour				

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Emission Source		Date of Construction	Date of Operation	Date of Removal	Control Type		Manufacturer's Name/Model No.
ID	Type				Code	Description	

Design Capacity	Design Capacity Units		Waste Feed		Waste Type	
	Code	Description	Code	Description	Code	Description

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - - - - - - -

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U - B O O T H	Process	0 1 A

Description

Large enclosed paint spray booth equipped with staged ventilation and filtration to capture and control particulate (PM-10, PM-2.5) emissions. The booth, which consists of two (2) zones, will also be equipped with a recuperative thermal oxidizer (RTO) for control of VOC.

Surface coating activities are performed on tower and transition pieces using both automated and manually operated airless spray guns. Coatings are applied to the parts in a specific sequence where the inside and outside of parts are coated.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30900198	86	134415	15	gallons

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG C	Large Spray Booth

Emission Point Identifier(s)

0002C						

Emission Source/Control Identifier(s)

MANUAL_P1	AUTO_P1	PBTH_FLTR_A	PBTHFLTR_B	RTO_1		

Process Information (continuation)

Emission Unit	U - B O O T H	Process	0 1 B

Description

Large enclosed paint spray booth equipped with two (2) integral curing ovens with curing temperatures up to 130 degrees F. Thermal energy utilized in curing mode is provided by three (3) separate hot water boilers with design heat input capacities less than 10.0 mmBtu/hr each, which fire natural gas (the boilers are therefore exempt from permitting). Flue gases from the boilers discharge to atmosphere via individual exhaust stacks.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30990003	165		3	pounds VOC per hour

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG C	Large Spray Booth

Emission Point Identifier(s)

0002C						

Emission Source/Control Identifier(s)

OVEN_A	OVEN_B	RTO_1				

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
-	-									

Section IV - Emission Unit Information

Process Information (continuation)

Emission Unit	U	-	B	O	O	T	H		Process	0	2	A

Description

Small enclosed paint spray booth equipped with staged ventilation and filtration to capture and control particulate (PM-10, PM-2.5) emissions. The booth, which consists of two (2) zones, will also be equipped with a recuperative thermal oxidizer (RTO) for control of VOC.

Surface coating activities are performed on tower and transition pieces using both automated and manually operated airless spray guns. Coatings are applied to the parts in a specific sequence where the inside and outside of parts are coated.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30900198	86	134415	15	gallons

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG C	Small Spray Booth

Emission Point Identifier(s)

0002C						

Emission Source/Control Identifier(s)

MANUAL_P2	AUTO_P2	PBTH_FLTR_C	PBTHFLTR_D	RTO_1		

Emission Unit	U	-	B	O	O	T	H		Process	0	2	B

Description

Small enclosed paint spray booth equipped with two (2) integral curing ovens with curing temperatures up to 130 degrees F. Thermal energy utilized in curing mode is provided by three (3) separate hot water boilers with design heat input capacities less than 10.0 mmBtu/hr each, which fire natural gas (the boilers are therefore exempt from permitting). Flue gases from the boilers discharge to atmosphere via individual exhaust stacks.

Source Classification Code (SCC)	Total Throughput		Throughput Quantity Units	
	Quantity/Hr	Quantity/Yr	Code	Description
30990003	165		3	pounds VOC per hour

☐ Confidential ☒ Operating at Maximum Capacity	Operating Schedule		Building	Floor/Location
	Hrs/Day	Days/Yr		
	24	365	BLDG C	Small Spray Booth

Emission Point Identifier(s)

0002C						

Emission Source/Control Identifier(s)

OVEN_C	OVEN_D	RTO_1				

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
	-					-					

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit Applicable Federal Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-BOOTH		01A, 02A		40	CFR	63	XXXXXX	63.11514	(b)	(4)			
U-BOOTH		01B, 02B		40	CFR	63	DDDDD						

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- - -

Section IV - Emission Unit Information

Emission Unit	Emission Point	Process	Emission Source	Emission Unit State Only Requirements (continuation)									
				Title	Type	Part	Subpart	Section	Subdiv.	Parag.	Subparag.	Clause	Subcl.
U-BOOTH	0002C			6	NYCRR	212	212-1	212-1.5	(g)				
U-BOOTH	0002C			6	NYCRR	212	212-1	212-1.6	(a)				
U-BOOTH	0002C			6	NYCRR	212	212-2	212-2.3	(a), (b)				
U-BOOTH	0002C			6	NYCRR	212	212-2	212-2.4	(b)	(1)			
U-BOOTH	0002C			6	NYCRR	228	228-1						

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	XXXXXX						

☐ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH		01A, 02A			

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The facility's surface coating activities are not subject to 40 CFR 63 Subpart XXXXXX since it does not perform spray-applied painting operations using paints which contain metal fabrication HAP (MFHAP), as defined in §63.11522.

Maintain up-to-date copies of the safety data sheets for all coatings used at all times to demonstrate that the facility is exempt from Subpart XXXXXX.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
40	CFR	63	DDDDD						

☐ Applicable Federal Requirement ☐ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH		01A, 01B			

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The facility's curing ovens are not subject to 40 CFR 63 Subpart DDDDD since the facility is not a major source of HAP.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.5	(g)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH	0002C				

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

At all times, the facility owner or operator must operate and maintain all process emission sources, including the associated air pollution control and monitoring equipment, in a manner consistent with safety, good air pollution control practices, good engineering practices and manufacturers' recommendations for minimizing emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-1	212-1.6	(a)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH	0002C				

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

No facility owner or operator shall cause or allow emissions having an average opacity during any six consecutive minutes of 20 percent or greater from any process emission source or emission point, except for the emission of uncombined water.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	212	212-2	212-2.3, 2.4					

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH	0002C		PBTH_FLTRA-D		

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Monitor pressure drop across booth fabric filters each operating day and maintain in accordance with manufacturer recommendations.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
63	pressure differential	TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
TBD	TBD	284	inches of water

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
61	Minimum - not to fall below stated value - see monitoring description	14	as required - see monitoring description	10	upon request by regulatory agency

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

DEC ID
- - - - -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	228	228-1	1.3	(a)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH	0002C				

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

No person shall cause or allow emissions to the outdoor atmosphere having an average opacity of 20 percent or greater for any consecutive six-minute period from any emission source subject to this Subpart.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	228	228-1	1.3	(b)	(1)			

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH					

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

The owner or operator of any emission source subject to this Subpart must maintain and, upon request, provide the department with a certification from the coating supplier/manufacturer which lists the parameters used to determine the actual VOC content of each as applied coating used at the facility. In addition, purchase, usage and/or production records of the coating material, including solvents, must be maintained in a format acceptable to the department and, upon request, these records must be submitted to the department within 90 days of receiving the request. Any facility required to perform the overall removal efficiency calculation set forth in equation 2 of section 228-1.5(c) of this Subpart, must maintain records to verify the parameters used in the calculation. A facility owner or operator must maintain a record that identifies each air cleaning device that has an overall removal efficiency of at least 90 percent. Any additional information required to determine compliance with this Part must be provided to the department in a format acceptable to the department. All records required by this paragraph must be maintained at the facility for a period of five years.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	228	228-1	1.3	(d)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH					

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Within the work area(s) associated with a coating line, the owner or operator of a facility subject to this Subpart must:

use closed, non-leaking containers to store or dispose of cloth or other absorbent applicators impregnated with VOC solvents that are used for surface preparation, cleanup or coating removal;

store in closed, non-leaking containers spent or fresh VOC solvents to be used for surface preparation, cleanup or coating removal;

not use VOC solvents to cleanup spray equipment unless equipment is used to collect the cleaning compounds and to minimize VOC evaporation;

not use open containers to store or dispense surface coatings and/or inks unless production, sampling, maintenance or inspection procedures require operational access. This provision does not apply to the actual device or equipment designed for the purpose of applying a coating material to a substrate. These devices may include, but are not limited to: spray guns, flow coaters, dip tanks, rollers, knife coaters, and extrusion coaters;

not use open containers to store or dispose of spent surface coatings, or spent VOC solvents;

minimize spills during the handling and transfer of coatings and VOC solvents; and

clean hand held spray guns by one of the following:
an enclosed spray gun cleaning system that is kept closed when not in use;
non-atomized discharge of VOC solvent into a paint waste container that is kept closed when not in use;
disassembling and cleaning of the spray gun in a vat that is kept closed when not in use; or
atomized spray into a paint waste container that is fitted with a device designed to capture atomized VOC solvent emissions.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	228	228-1	1.5	(a)-(c)				

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH	0002C		RTO_1	NY998-00-0	Volatile Organic Compounds

Monitoring Information

☐ Continuous Emission Monitoring
☐ Intermittent Emission Testing
☐ Ambient Air Monitoring
☒ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Maintain minimum overall VOC removal efficiency of 95% by weight.

The permittee shall continuously monitor the temperature of the combustion chamber associated with source RTO_1 to verify that it is above the indicator for 95% overall removal efficiency for VOC at all times during operations.

An alarm shall be triggered if the temperature falls below the temperature demonstrated by Department approved stack testing to achieve 95% overall removal efficiency of VOC at all times during operation of source RTO_1.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.
03	temperature	TBD

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description
	TBD	44	degrees Fahrenheit

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
32	15-minute rolling average	14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit Compliance Certification (continuation)

Rule Citation

Title	Type	Part	Subpart	Section	Subdivision	Paragraph	Subparagraph	Clause	Subclause
6	NYCRR	228	228-1	1.6					

☐ Applicable Federal Requirement ☒ State Only Requirement ☐ Capping

Emission Unit	Emission Point	Process	Emission Source	CAS No.	Contaminant Name
U-BOOTH	0002C		RTO_1		

Monitoring Information

☐ Continuous Emission Monitoring
☒ Intermittent Emission Testing
☐ Ambient Air Monitoring
☐ Monitoring of Process or Control Device Parameters as a Surrogate
☐ Work Practice Involving Specific Operations
☒ Record Keeping/Maintenance Procedures

Description

Upon request by the Department, perform stack emissions testing to demonstrate compliance with VOC overall removal efficiency according to requirements of section 228-1.6.

Work Practice Type	Process Material Code	Process Material Description	Reference Test Method

Monitored Parameter Code	Monitored Parameter Description	Manufacturer Name/Model No.

Limit Upper	Limit Lower	Limit Units Code	Limit Units Description

Averaging Method Code	Averaging Method Description	Monitoring Frequency Code	Monitoring Frequency Description	Reporting Requirements Code	Reporting Requirements Description
		14	as required - see monitoring description	10	upon request by regulatory agency

New York State Department of Environmental Conservation
Air Permit Application Form

New York State of Opportunity | Department of Environmental Conservation

DEC ID
- -

Section IV - Emission Unit Information

Process Emissions Summary (continuation)

Emission Unit	U-BOOTH			Process	01A		
CAS No.	Contaminant Name		% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
NY998-00-0	Volatile Organic Compounds			100	95	188	02, 04
PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined		Actual (lbs/hr)	Actual (lbs/yr)
9.42	14637			02, 04		< 9.42	< 14637
Emission Unit	-			Process			
CAS No.	Contaminant Name		% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined		Actual (lbs/hr)	Actual (lbs/yr)
Emission Unit	-			Process			
CAS No.	Contaminant Name		% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined		Actual (lbs/hr)	Actual (lbs/yr)
Emission Unit	-			Process			
CAS No.	Contaminant Name		% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined		Actual (lbs/hr)	Actual (lbs/yr)
Emission Unit	-			Process			
CAS No.	Contaminant Name		% Throughput	% Capture	% Control	ERP (lbs/hr)	ERP How Determined
PTE (lbs/hr)	PTE (lbs/yr)	PTE (standard units)	Standard Units	PTE How Determined		Actual (lbs/hr)	Actual (lbs/yr)

Continuation Sheet ____ of ____

New York State Department of Environmental Conservation
Air Permit Application Form

DEC ID
- -

Section IV - Emission Unit Information

Emission Unit	Emission Unit Emissions Summary (continuation)			
U - B 0 0 T H				
CAS Number	Contaminant Name			
NY998-00-0	Volatile Organic Compounds			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
285993	9.42	14637	< 9.42	< 14637
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)
CAS Number	Contaminant Name			
ERP (lbs/yr)	Potential to Emit		Actual Emissions	
	(lbs/hr)	(lbs/yr)	(lbs/hr)	(lbs/yr)

Continuation Sheet ____ of ____

ATTACHMENT B

Facility Potential Emissions Calculations

Facility Potential Emissions Summary (PTE)

Pollutant	Pollutant CAS No.	Is Facility PTE less than 6 NYCRR 201-2.1 Major Source Threshold?	6 NYCRR 201-2.1 Major Source Thresholds (tpy)	Facility-wide PTE [1] (tpy)						
				Facility PTE (tpy)	Machining, Welding, Grinding Activities (Bldgs A, B)	Shot Blast (Plate and Tower Blast)	Metal Spray Booths (Thermal Spraying)	Paint Spray Booths (Including Boilers, RTO)	Natural Gas-Fired Comfort Heating and Cooling Equipment (Permit Exempt)	Natural Gas-Fired Emergency Generators and Diesel Fire Pumps (Permit Exempt)
NO_X	NY210-00-0	Yes	100	87.9	27.9	--	--	11.8	47.0	1.21
CO	630-08-0	Yes	100	73.2	23.5	--	--	9.88	39.5	0.409
PM_{10}	NY075-00-5	Yes	100	8.56	0.133	2.08	7.06E-02	2.65	3.57	5.53E-02
$PM_{2.5}$	NY750-02-5	Yes	100	7.93	0.133	1.51	6.81E-02	2.58	3.57	5.53E-02
SO_2	7446-09-5	Yes	100	0.524	0.168	--	--	7.06E-02	0.282	4.16E-03
VOC	NY998-00-0	Yes	50	12.3	1.54	--	0.00E+00	7.80	2.58	0.368
Pb	7439-92-1	Yes	-	7.01E-04	1.40E-04	--	1.03E-06	3.25E-04	2.35E-04	--
CO_2	124-38-9	Yes	-	104,569	33,539	--	--	14,111	56,388	531
N_2O	10024-97-2	Yes	-	0.558	0.179	--	--	7.53E-02	0.301	3.08E-03
CH_4	74-82-8	Yes	-	2.01	0.643	--	--	0.270	1.08	1.72E-02
CO_2e [2]	NY750-00-0	Yes	-	104,784	33,608	--	--	14,140	56,504	532
NH_3	7664-41-7	Yes	-	2.77	0.894	--	--	0.376	1.50	--
Total HAPs	NY100-00-0	Yes	25	4.99	0.537	2.50E-02	1.10E-06	3.48	0.887	5.70E-02
Any Individual HAP	--	Yes	10	2.58	0.503	2.50E-02	1.03E-06	2.58	0.846	3.50E-02

Notes:

(1) Facility-wide PTE for VOC based upon paint booth RTO performance with overall 95% VOC control efficiency and coating usage based upon maximum yearly production of 150 Towers or 100 Towers and 100 Transition Pieces.

(2) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 212 Process Operations
Part 212 Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
1,2,3-Trimethylbenzene	526-73-8	U-BOOTH	Thinner 08450	215	N	Moderate	B	4.98E+00	100	0%	0%	2.49E-01	8760	1.32E+02	n/a
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
1,2,4-Trimethylbenzene	95-63-6	U-BOOTH	Thinner 08450	215	N	Moderate	B	1.45E+01	100	90%, Meet Applicable SGC/AGC	90%	7.25E-01	8760	3.83E+02	n/a
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
1,3-bis(12-Hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	3.53E+00	n/a	Meet Applicable SGC/AGC	0%	1.76E-01	8760	1.83E+02	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
1,6-Hexanediol diglycidylether	16096-31-4	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.49E+01	100	90%, Meet Applicable SGC/AGC	90%	1.49E-01	8760	7.15E+01	n/a
1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	4.52E-02	100	Meet Applicable SGC/AGC	0%	2.26E-03	8760	2.02E+00	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
1-Ethyl-2-methylbenzene	611-14-3	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.34E+00	100	Meet Applicable SGC/AGC	0%	6.68E-02	8760	3.50E+01	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	7.37E+01	100	90%, Meet Applicable SGC/AGC	90%	3.69E+00	8760	7.05E+02	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempaprime Multi 500	8000											
2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.20E+01	n/a	90%, Meet Applicable SGC/AGC	90%	6.01E-01	8760	6.36E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
2,6-Dimethylheptan-4-one (Diisobutyl Ketone)	108-83-8	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	6.24E-01	100	Meet Applicable SGC/AGC	0%	3.12E-02	8760	1.50E+01	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
2-Methoxy-1-methylethyl acetate (Methoxypropylacetate)	108-65-6	U-BOOTH	Hempaprime Multi 500	8000	N	Moderate	B	1.18E+00	100	Meet Applicable SGC/AGC	0%	5.90E-02	8760	9.07E+00	n/a
2-Methoxypropanol	1589-47-5	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.22E-01	100	Meet Applicable SGC/AGC	0%	1.11E-02	8760	2.12E+00	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempaprime Multi 500	8000											
2-Methoxypropyl acetate	70657-70-4	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	3.55E-03	100	Meet Applicable SGC/AGC	0%	1.77E-04	8760	2.73E-02	n/a
2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.74E-01	100	Meet Applicable SGC/AGC	0%	8.68E-03	8760	3.46E+00	n/a
			Galvosil 15700	2000											
2-Methylstyrene	611-15-4	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	6.30E-04	100	Meet Applicable SGC/AGC	0%	3.15E-05	8760	4.85E-03	n/a
2-Phenylpropene (Methyl Styrene)	98-83-9	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	1.51E-01	100	Meet Applicable SGC/AGC	0%	7.57E-03	8760	1.16E+00	n/a
3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	4.32E+00	100	Meet Applicable SGC/AGC	0%	2.16E-01	8760	3.08E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	2.38E+00	100	Meet Applicable SGC/AGC	0%	1.19E-01	8760	1.06E+02	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
4,4'-Isopropylidenediphenol	80-05-7	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	5.16E-02	100	Meet Applicable SGC/AGC	0%	5.16E-04	8760	5.16E-01	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
4,6-Dimethyl-2-heptanone	19549-80-5	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	2.34E-01	100	Meet Applicable SGC/AGC	0%	1.17E-02	8760	5.62E+00	n/a
Acrylic resin	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	2.80E+01	100	90%, Meet Applicable SGC/AGC	90%	2.80E-01	8760	1.04E+02	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Alkyd resin	CBI	U-BOOTH	Hempadur 4774D	52000	N	(Moderate)	B	3.93E-01	n/a	Meet Applicable SGC/AGC	0%	3.93E-03	8760	2.83E+00	n/a
			Hempaprime Multi 500	8000											
Allyl glycidyl ether	106-92-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	4.30E-03	100	Meet Applicable SGC/AGC	0%	2.15E-04	8760	3.06E-01	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Aluminium hydroxide	21645-51-2	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	8.97E-01	100	t Applicable SGC/	0%	8.97E-03	8760	9.22E+00	n/a
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Aluminum oxide	1344-28-1	U-MFR_A	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	8.15E-01	100	Meet Applicable SGC/AGC	0%	8.15E-03	8760	6.92E+00	n/a
		U-MFR_B											8760		
		U-BOOTH	Hempathane 55610	14100									8760		
Amorphous silica	68611-44-9	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	6.51E-01	100	Meet Applicable SGC/AGC	0%	6.51E-03	8760	2.50E-01	n/a
Barium sulfate	7727-43-7	U-BOOTH	Hempathane 55610	14100	N	Moderate	B	1.20E+01	100	Meet Applicable SGC/AGC	0%	1.20E-01	8760	4.45E+01	n/a
Benzaldehyde	100-52-7	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	High	A	6.60E-02	n/a	Meet Applicable SGC/AGC	0%	3.30E-03	8760	1.59E+00	n/a
Benzene	71-43-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	Y	High	A	6.74E-02	100	Meet Applicable SGC/AGC	0%	3.38E-03	8760	5.38E+00	N
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Natural Gas	61.3 MMscf/yr											
Benzyl alcohol	100-51-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	Moderate	B	3.46E+01	100	90%, Meet Applicable SGC/AGC	90%	1.73E+00	8760	8.32E+02	n/a
Benzyl chloride	100-44-7	U-BOOTH	Hempadur Multi-Strength 35842	25000	Y	High	A	3.43E-03	25	Meet Applicable SGC/AGC	0%	1.72E-04	8760	8.25E-02	N
bis (1,2,2,6,6-Pentamethyl-4-piperidyl) sebacate	41556-26-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.28E+00	100	Meet Applicable SGC/AGC	0%	6.39E-02	8760	2.37E+01	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
bis[(Dimethylamino)methyl]phenol	71074-89-0	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.12E+00	n/a	Meet Applicable SGC/AGC	0%	1.06E-01	8760	1.12E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Bisphenol A-(epichlorhydrin) epoxy resin	25068-38-6	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	5.21E+01	100	90%, Meet Applicable SGC/AGC	90%	5.21E-01	8760	6.89E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Block copolymer	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	2.40E-01	n/a	Meet Applicable SGC/AGC	0%	2.40E-03	8760	8.90E-01	n/a
C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)	64742-48-9	U-BOOTH	Hempadur 4774D	52000	N	Moderate	B	5.91E-01	100	Meet Applicable SGC/AGC	0%	2.96E-02	8760	2.13E+01	n/a
			Hempaprime Multi 500	8000											
C12-14 Alcohols	80206-82-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.36E+00	100	Meet Applicable SGC/AGC	0%	6.82E-02	8760	5.05E+01	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Cadmium	7440-43-9	U-MFR_A	Natural Gas	428.7 MMscf/yr	Y	High	A	2.38E-04	1	Meet Applicable SGC/AGC	0%	7.79E-05	8760	6.82E-01	N
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		
		U-METAL	Zinc Wire	3504000 lbs/yr									8760		
Calcium carbonate	16389-88-1	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	7.22E-03	n/a	Meet Applicable SGC/AGC	0%	7.22E-05	8760	6.33E-01	n/a
Carbon black	1333-86-4	U-BOOTH	Hempaprime Multi 500	8000	N	Moderate	B	3.29E-02	100	Meet Applicable SGC/AGC	0%	3.29E-04	8760	5.05E-02	n/a
Chromium	7440-47-3	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		Y	High	A	1.31E-01	250	Comply w/ NESHAP and/or Meet Applicable SGC/AGC	0%	1.31E-01	8760	1.23E+01	N
			NS-115 ER70S-6	62,700 lbs weld wire/yr											
			Bohler HL 51 L-MC	209,250 lbs weld wire/yr											
			E71T-12M-JH4	116,400 lbs weld wire/yr											
		U-MFR_A	Natural Gas	428.7 MMscf/yr									8760		
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-PBLST	Steel Shot	30000 lbs steel shot/hr									8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Copper	7440-50-8	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	Moderate	B	7.38E-02	100	Meet Applicable SGC/AGC	0%	7.38E-04	8760	6.47E+00	n/a
		U-PBLST	Steel Shot	30000 lbs steel shot/hr									8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr									8760		
Cryolite	13775-53-6	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	1.24E-02	n/a	Meet Applicable SGC/AGC	0%	1.24E-04	8760	1.08E+00	n/a
Cumene	98-82-8	U-BOOTH	Thinner 08450	215	N	(Moderate)	B	6.79E-01	100	Meet Applicable SGC/AGC	0%	3.40E-02	8760	1.79E+01	n/a
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
Cured phenolic resin	9003-35-4	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	High	A	1.55E-02	n/a	Meet Applicable SGC/AGC	0%	1.55E-04	8760	1.36E+00	n/a
Decamethylcyclopentasiloxane (D5)	541-02-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	Low	C	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	8760	2.07E-02	n/a
Dibenzyl ether	103-50-4	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.43E-02	100	Meet Applicable SGC/AGC	0%	1.72E-03	8760	8.26E-01	n/a
Dibutyltin dilaurate	77-58-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	2.45E-02	100	Meet Applicable SGC/AGC	0%	2.45E-04	8760	9.08E-02	n/a
Dipotassium oxide	12136-45-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.28E-01	100	Meet Applicable SGC/AGC	0%	1.28E-03	8760	4.75E-01	n/a
Dodecamethylcyclohexasiloxane (D6)	540-97-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	8760	2.07E-02	n/a
Ethanol + Ethanol (formed by reaction)	64-17-5	U-BOOTH	Galvosil 15700	2000	N	Low	C	6.26E+01	100	75%, Meet Applicable SGC/AGC	75%	3.13E+00	8760	1.20E+02	n/a
Ethylbenzene	100-41-4	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	2.06E+01	100	90%, Meet Applicable SGC/AGC	90%	1.03E+00	8760	1.14E+03	n/a
			Thinner 08450	215											
			Hempathane 55610	14100											
			Thinner 08080	100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Ethylpolysilicate	11099-06-2	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	4.84E+01	100	90%, Meet Applicable SGC/AGC	90%	2.42E+00	8760	9.32E+01	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Fatty acids, c18-unsatd., dimers, polymers with triethylenetetramine, reaction products with poly (bisphenol a diglycidyl ether)	68424-41-9	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	4.65E+01	n/a	90%, Meet Applicable SGC/AGC	90%	2.33E+00	8760	3.58E+02	n/a
Feldspar-group minerals	68476-25-5	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	3.42E-01	100	Meet Applicable SGC/AGC	0%	3.42E-03	8760	1.31E-01	n/a
Fluoro polysiloxane	CBI	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.84E-03	100	Meet Applicable SGC/AGC	0%	1.84E-05	8760	8.87E-03	n/a
Glass beads	65997-17-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.41E+01	100	90%, Meet Applicable SGC/AGC	90%	1.41E-01	8760	8.45E+01	n/a
			Hempadur Multi-Strength 35842	25000											
Heptan-2-one (Methyl Amyl Ketone)	110-43-0	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	7.38E+00	100	Meet Applicable SGC/AGC	0%	3.69E-01	8760	5.68E+01	n/a
Hexamethylene-1,6-diisocyanate homopolymer (HDI Homopolymer)	28182-81-2	U-BOOTH	Hempathane 55610	14100	Y	High	A	1.00E+01	100	99%, Meet Applicable SGC/AGC	99%	1.00E-01	8760	3.72E+01	N
Hexamethylene-di-isocyanate (HDI)	822-06-0	U-BOOTH	Hempathane 55610	14100	Y	High	A	1.34E-01	100	Meet Applicable SGC/AGC	0%	6.71E-03	8760	2.49E+00	N
Hydrogen chloride	7647-01-0	U-BOOTH	Galvosil 15700	2000	N	Moderate	B	8.77E-02	100	Meet Applicable SGC/AGC	0%	8.77E-02	8760	3.37E+00	n/a
Hydrogenated castor oil	8001-78-3	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	8.14E+00	n/a	Meet Applicable SGC/AGC	0%	8.14E-02	8760	3.91E+01	n/a
Iron hydroxide oxide	20344-49-4	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	7.53E-02	100	Meet Applicable SGC/AGC	0%	7.53E-04	8760	1.16E-01	n/a
Kaolin (Clay)	1332-58-7	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	2.07E+01	100	90%, Meet Applicable SGC/AGC	90%	2.07E-01	8760	7.97E+00	n/a
Lead	7439-92-1	U-MFR_A	Natural Gas	428.7 MMscf/yr	Y	High	A	3.82E-03	5	Comply w/ NESHAP, HTAC Mass Emission Limit	0%	1.47E-03	8760	8.45E-01	N
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		
		U-METAL	Zinc Wire	3504000 lbs/yr									8760		

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Lead compounds (Lead Tetraoxide)	1314-41-6	U-BOOTH	Hempathane 55610	14100	Y	High	A	1.19E-03	5	Meet Applicable SGC/AGC	0%	1.19E-05	8760	4.41E-03	N
Lecithin	8002-43-5	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.60E-01	n/a	Meet Applicable SGC/AGC	0%	1.60E-03	8760	5.92E-01	n/a
Limestone	1317-65-3	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	5.00E+01	100	90%, Meet Applicable SGC/AGC	90%	5.00E-01	8760	3.33E+02	n/a
			Hempadur 4774D	52000											
Manganese	7439-96-5	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		Y	High	A	6.56E-01	10	Comply w/ NESHAP, conduct TIA	0%	6.58E-03	8760	5.77E+01	Y
			ESAB Spoolarc 81 (SA81) WIRE SUBARC EM12K	2,792,700 lbs weld wire/yr											
			ESAB OK Flux 10.72 for SAW, EM12K	3,490,950 lbs weld wire/yr											
			NS-115 ER70S-6	62,700 lbs weld wire/yr											
			Bohler HL 51 L-MC	209,250 lbs weld wire/yr											
			E71T-12M-JH4	116,400 lbs weld wire/yr											
		U-MFR_A	Natural Gas	428.7 MMscf/yr									8760		
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-PBLST	Steel Shot	30000 lbs steel shot/hr						99%, Comply w/ NESHAP, conduct TIA			8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr						90%, Comply w/ NESHAP, conduct TIA			8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr						Meet Applicable SGC/AGC, conduct TIA			8760		
Methanol + Methanol (formed by reaction)	67-56-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	1.79E+00	100	Meet Applicable SGC/AGC	0%	8.96E-02	8760	1.28E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Methyl Ethyl Ketone	78-93-3	U-BOOTH	Methyl Ethyl Ketone (MEK, butanone)	6000	N	Moderate	B	1.38E+01	100	90%, Meet Applicable SGC/AGC	90%	6.90E-01	8760	2.01E+03	n/a
Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	82919-37-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	3.20E-01	100	Meet Applicable SGC/AGC	0%	3.20E-01	8760	1.19E+02	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Methylstyrenated phenol	68512-30-1	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	3.00E+01	n/a	90%, Meet Applicable SGC/AGC	90%	1.50E+00	8760	2.31E+02	n/a
Mica	12001-26-2	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	4.56E-01	100	Meet Applicable SGC/AGC	0%	4.56E-03	8760	1.75E-01	n/a
m-Xylylene-diamine (Xylene Diamine, Meta-)	1477-55-0	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.84E+00	n/a	Meet Applicable SGC/AGC	0%	9.21E-02	8760	4.43E+01	n/a
Naphthalene	91-20-3	U-BOOTH	Natural Gas	61.3 MMscf/yr	N	Moderate	B	4.47E-02	100	Meet Applicable SGC/AGC	0%	2.25E-03	8760	9.73E-01	n/a
n-Butanol (N-Butyl Alcohol)	71-36-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Low	C	4.23E+01	100	75%, Meet Applicable SGC/AGC	75%	2.12E+00	8760	2.10E+03	n/a
			Thinner 08450	215											
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
n-Butyl acetate	123-86-4	U-BOOTH	Hempathane 55610	14100	N	Low	C	4.49E+01	100	75%, Meet Applicable SGC/AGC	75%	2.24E+00	8760	8.72E+02	n/a
			Hempaprime Multi 500	8000											
Nepheline syenite	37244-96-5	U-BOOTH	Hempadur 4774D	52000	N	(Moderate)	B	5.16E+01	n/a	90%, Meet Applicable SGC/AGC	90%	5.16E-01	8760	3.82E+02	n/a
			Hempaprime Multi 500	8000											
Nickel	7440-02-0	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		Y	High	A	1.03E-01	10	Comply w/ NESHAP, conduct TIA and/or Meet Applicable SGC/AGC	0%	1.18E-03	8760	1.03E+01	Y
			NS-115 ER70S-6	62,700 lbs weld wire/yr											
			Bohler HL 51 L-MC	209,250 lbs weld wire/yr											
			E71T-12M-JH4	116,400 lbs weld wire/yr											
		U-MFR_A	Natural Gas	428.7 MMscf/yr									8760		
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-PBLST	Steel Shot	30000 lbs steel shot/hr									8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		
Nonane	111-84-2	U-BOOTH	Hempadur 4774D	52000	N	Low	C	6.90E-02	100	Meet Applicable SGC/AGC	0%	3.45E-03	8760	2.49E+00	n/a
			Hempaprime Multi 500	8000											
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	100545-48-0	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	6.78E-01	n/a	Meet Applicable SGC/AGC	0%	6.78E-03	8760	3.26E+00	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Octamethylcyclotetrasiloxane (D4)	556-67-2	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	Moderate	B	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	8760	2.07E-02	n/a
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	6.67E+01	100	90%, Meet Applicable SGC/AGC	90%	3.34E+00	8760	2.47E+03	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Phenol	108-95-2	U-BOOTH	Hempadur 4774D	52000	N	Moderate	B	1.51E-01	100	Meet Applicable SGC/AGC	0%	7.57E-03	8760	1.25E+00	n/a
			Hempaprime Multi 500	8000											
Phosphorus pentoxide	1314-56-3	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.01E+00	100	Meet Applicable SGC/AGC	0%	5.07E-02	8760	1.88E+01	n/a
Pigment black 10, 77265 (Graphite)	7782-42-5	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.93E+00	100	Meet Applicable SGC/AGC	0%	1.93E-02	8760	1.15E+01	n/a
Polyamineamide salt	CBI	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	4.34E-01	n/a	Meet Applicable SGC/AGC	0%	4.34E-03	8760	1.73E+00	n/a
			Galvosil 15700	2000											
Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidylester and bisphenol A-(epichlorhydrin) epoxy resin	CBI	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.33E+01	100	90%, Meet Applicable SGC/AGC	90%	1.33E-01	8760	6.41E+01	n/a
Polymer of: triethylenetetramine, polyaminoamide and bisphenol A-(epichlorhydrin) epoxy resin	CBI	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.73E+01	n/a	90%, Meet Applicable SGC/AGC	90%	1.73E-01	8760	1.33E+02	n/a
			Hempadur 4774D	52000											
Polyolefins	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	6.52E-02	100	Meet Applicable SGC/AGC	0%	6.52E-04	8760	1.60E-01	n/a
			Hempaprime Multi 500	8000											
Polyoxypropylenediamine	9046-10-0	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.94E+01	100	90%, Meet Applicable SGC/AGC	90%	1.97E+00	8760	9.47E+02	n/a
Potassium floroborate	14075-53-7	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	1.24E-02	n/a	Meet Applicable SGC/AGC	0%	1.24E-04	8760	1.08E+00	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Precipitated silica	112926-00-8	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	8.64E-02	100	Meet Applicable SGC/AGC	0%	4.32E-03	8760	2.57E+00	n/a
Propan-2-ol (Isopropyl Alcohol)	67-63-0	U-BOOTH	Galvosil 15700	2000	N	Moderate	B	2.41E+01	100	90%, Meet Applicable SGC/AGC	90%	1.21E+00	8760	4.64E+01	n/a
Propyleneglycol (Propanediol, 1,2-)	57-55-6	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	1.74E-01	100	Meet Applicable SGC/AGC	0%	8.68E-03	8760	3.46E+00	n/a
			Galvosil 15700	2000											
Quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with bentonite and bis(hydrogenated tallow alkyl)dimethylammonium chlorides	71011-25-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.17E+00	n/a	Meet Applicable SGC/AGC	0%	2.17E-02	8760	1.29E+01	n/a
Quaternary ammonium modified bentonite	121888-68-4	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	8.42E-01	n/a	Meet Applicable SGC/AGC	0%	8.42E-03	8760	3.24E-01	n/a
Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl)amino] hexyl]	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.51E+00	n/a	Meet Applicable SGC/AGC	0%	1.51E-02	8760	1.57E+01	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Respirable quartz	14808-60-7	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.13E+00	100	Meet Applicable SGC/AGC	0%	2.13E-02	8760	1.79E+01	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempathane 55610	14100											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Salicylic acid	69-72-7	U-BOOTH	Hempadur 4774D	52000	N	(Moderate)	B	3.36E-01	n/a	Meet Applicable SGC/AGC	0%	3.36E-03	8760	2.03E+00	n/a
Silicon dioxide	7631-86-9	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.59E-01	100	Meet Applicable SGC/AGC	0%	3.59E-03	8760	3.50E+00	n/a
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Solvent naphtha			Thinner 08450	215						90%, Meet					

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	U-BOOTH	Hempathane 55610	14100	N	Moderate	B	5.65E+01	100	90%, Meet Applicable SGC/AGC	90%	2.83E+00	8760	1.22E+03	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
Stearic acid	57-11-4	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.06E+01	100	90%, Meet Applicable SGC/AGC	90%	5.32E-01	8760	3.54E+02	n/a
			Hempadur 4774D	52000											
Talc (non-asbestiform)	14807-96-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	2.36E+01	100	90%, Meet Applicable SGC/AGC	90%	2.36E-01	8760	1.08E+02	n/a
			Hempaprime Multi 500	8000											
Titanium dioxide	13463-67-7	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.43E+01	100	90%, Meet Applicable SGC/AGC	90%	3.43E-01	8760	3.28E+02	n/a
			Hempathane 55610	14100											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Toluene	108-88-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Low	C	8.81E-01	100	Meet Applicable SGC/AGC	0%	4.41E-02	8760	5.33E+01	n/a
			Thinner 08080	100											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Natural Gas	61.3 MMscf/yr											
Trimethylolpropane	77-99-6	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.01E+00	100	Meet Applicable SGC/AGC	0%	5.07E-02	8760	1.88E+01	n/a
Trizinc bis(orthophosphate)	7779-90-0	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.16E+00	100	Meet Applicable SGC/AGC	0%	1.16E-02	8760	4.31E+00	n/a
White spirit (Naphtha Medium Aliphatic)	64742-88-7	U-BOOTH	Hempathane 55610	14100	N	Moderate	B	1.04E+00	100	Meet Applicable SGC/AGC	0%	5.21E-02	8760	1.28E+01	n/a
			Hempaprime Multi 500	8000											
Xylene	1330-20-7	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	9.30E+01	100	90%, Meet Applicable SGC/AGC	90%	4.65E+00	8760	5.17E+03	n/a
			Thinner 08450	215											
			Hempathane 55610	14100											
			Thinner 08080	100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Zeolites	1318-02-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.63E-01	n/a	Meet Applicable SGC/AGC	0%	2.63E-03	8760	1.56E+00	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Zinc chloride	7646-85-7	U-BOOTH	Galvosil 15700	2000	N	Moderate	B	3.42E-01	100	Meet Applicable SGC/AGC	0%	3.42E-03	8760	1.31E-01	n/a
Zinc oxide	1314-13-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	1.19E+01	100	90%, Meet Applicable SGC/AGC	90%	1.19E-01	8760	5.33E+01	n/a
			Hempathane 55610	14100											
			Galvosil 15700	2000											
Zinc powder - zinc dust (stabilized)	7440-66-6	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Low	C	3.54E+02	100	75%, Meet Applicable SGC/AGC	75%	1.88E+00	8760	9.81E+02	n/a
			Galvosil 15700	2000											
		U-METAL	Zinc Wire	3504000 lbs/yr									8760		
Zirconium dioxide	1314-23-4	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.59E-01	100	Meet Applicable SGC/AGC	0%	3.59E-03	8760	3.50E+00	n/a
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											

Process Equipment	Coating Product Name	Chemical Name	CAS No.	HAP?	Min Wt %	Max Wt %	Avg Wt %	Type	Physical Phase	Coating Density (lbs/gal)	VOC Content Less Exempt (lbs/gal)	Solids Wt %	Max HAP Wt %	Avg HAP Wt %	Max Yearly Usage (gal/yr)	Max Hourly Usage (gal/hr) [1]	Uncontrolled PM10		Uncontrolled PM2.5		Uncontrolled VOC		Uncontrolled HAP		PM10 After Control		PM2.5 After Control		VOC After Control		HAP After Control	
																	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)
Paint Spray Booths (Towers)	Hempadur Zinc 1736/G (Avantguard 750)	Middle molecular epoxy resin MMW 700-1200	25068-38-6	N	8.6974	8.6974	8.6974	Binders	P	18.92	2.75	85.2	11.5	11.5	25000	21.00	162.4880	96719.04	156.5639	93192.825	115.6673	68849.5543	91.6187	54534.9309	1.6249	967.1904	1.5656	931.92825	5.7834	3442.47771	4.5809	2726.74655
		Xylene	1330-20-7	Y	9.1886	9.1886	9.1886	Solvents	V																							
		Ethylbenzene	100-41-4	Y	2.0443	2.0443	2.0443	Solvents	V																							
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.0016373	0.0016373	0.0016373	Binders, Monomers	V																							
		Toluene	108-88-3	Y	0.10548	0.10548	0.10548	Solvents	V																							
		4,4'-Isopropylidenediphenol	80-05-7	N	0.0017459	0.0017459	0.0017459	Binders, Monomers	P																							
		Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	N	0.94899	0.94899	0.94899	Binders	V																							
		C12-14 Alcohols	80206-82-2	N	0.019397	0.019397	0.019397	Chemicals	V																							
		Benzene	71-43-2	Y	0.0075039	0.0075039	0.0075039	Solvents	V																							
		Respirable quartz	14808-60-7	N	0.010911	0.010911	0.010911	Pigments, Inorganic	P																							
		Quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, chlorides,compds. with be	71011-25-1	N	1.0912	1.0912	1.0912	Pigments, Inorganic	P																							
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	2.6424	2.6424	2.6424	Solvents	V																							
		Water	7732-18-5	N	0.002645	0.002645	0.002645	Solvents, Water	V																							
		2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	N	0.013225	0.013225	0.013225	Solvents	V																							
		Propyleneglycol (Propanediol, 1,2-)	57-55-6	N	0.013225	0.013225	0.013225	Solvents	V																							
		Polyamineamide salt	CBI	N	0.13225	0.13225	0.13225	Chemicals	P																							
		Zeolites	1318-02-1	N	0.13225	0.13225	0.13225	Pigments, Inorganic	P																							
		Pigment black 10, 77265 (Graphite)	7782-42-5	N	0.96984	0.96984	0.96984	Pigments, Inorganic	P																							
		Zinc powder - zinc dust (stabilized)	7440-66-6	N	64.453	64.453	64.453	Pigments, Metallic	P																							
		Zinc oxide	1314-13-2	N	4.1067	4.1067	4.1067	Pigments, Inorganic	P																							
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.43907	0.43907	0.43907	Chemicals	V																							
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.1820625	0.1820625	0.1820625	Solvents	V																							
		Allyl glycidyl ether	106-92-3	N	0.00043643	0.00043643	0.00043643	Solvents	V																							
		Glass beads	65997-17-3	N	1.4113	1.4113	1.4113	Pigments, Inorganic	P																							
		Precipitated silica	112926-00-8	N	0.043497	0.043497	0.043497	Pigments, Inorganic	P																							
		2-Methoxypropanol	1589-47-5	N	0.0018376	0.0018376	0.0018376	Solvents	V																							
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	0.61094	0.61094	0.61094	Solvents	V																							
		3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	N	0.085172	0.085172	0.085172	Binders, Monomers	V																							
		Polymer of: triethylenetetramine, polyaminoamide and bisphenol A-(epichlorhydrin) epoxy resin	CBI	N	2.4353	2.4353	2.4353	Binders	P																							
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.058181	0.058181	0.058181	Chemicals	V																							
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	0.32969	0.32969	0.32969	Chemicals	V																							
Paint Spray Booths (Transitions)	Hempadur Multi-Strength 35842	Bisphenol A-(epichlorhydrin) epoxy resin MW =< 700	25068-38-6	N	37.211	37.211	37.211	Binders	P	10.76	0.185	93.3	0.3	0.3	25000	26.00	125.287718	60234.48	120.719937	58038.4313	9.63393036	4631.69729	1.80153332	866.121788	1.25287718	602.3448	1.20719937	580.384313	0.48169652	231.584864	0.09007667	43.3060894
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.00095748	0.00095748	0.00095748	Binders, Monomers	V																							
		4,4'-Isopropylidenediphenol	80-05-7	N	0.036876	0.036876	0.036876	Binders, Monomers	P																							
		1,6-Hexanediol diglycidylether	16096-31-4	N	10.631	10.631	10.631	Binders	P																							
		2,6-Dimethylheptan-4-one (Diisobutyl Ketone)	108-83-8	N	0.11156	0.11156	0.11156	Solvents	V																							
		4,6-Dimethyl-2-heptanone	19549-80-5	N	0.041816	0.041816	0.041816	Solvents	V																							
		Fluoro polysiloxane	CBI	N	0.0013189	0.0013189	0.0013189	Chemicals	P																							
		Octamethylcyclotetrasiloxane (D4)	556-67-2	N	0.00015361	0.00015361	0.00015361	Chemicals	V																							
		Decamethylcyclopentasiloxane (D5)	541-02-6	N	0.00015361	0.00015361	0.00015361	Chemicals	V																							
		Dodecamethylcyclohexasiloxane (D6)	540-97-6	N	0.00015361	0.00015361	0.00015361	Chemicals	V																							
		Hydrogenated castor oil	8001-78-3	N	1.4549	1.4549	1.4549	Chemicals	V																							
		Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	100545-48-0	N	0.48498	0.48498	0.48498	Chemicals	P																							
		Titanium dioxide	13463-67-7	N	3.7797	3.7797	3.7797	Pigments, Inorganic	P																							
		Silicon dioxide	7631-86-9	N	0.039578	0.039578	0.039578	Pigments, Inorganic	P																							
		Aluminium hydroxide	21645-51-2	N	0.098945	0.098945	0.098945	Pigments, Inorganic	P																							
		Zirconium dioxide	1314-23-4	N	0.039578	0.039578	0.039578	Pigments, Inorganic	P																							
		Talc (non-asbestiform)	14807-96-6	N	10.679	10.679	10.679	Pigments, Inorganic	P																							
		Respirable quartz	14808-60-7	N	0.10785	0.10785	0.10785	Pigments, Inorganic	P																							
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.7727	0.7727	0.7727	Chemicals	V																							
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.3204074	0.3204074	0.3204074	Solvents	V																							
		Allyl glycidyl ether	106-92-3	N	0.00076804	0.00076804	0.00076804	Solvents	V																							
		Glass beads	65997-17-3	N	10.088	10.088	10.088	Pigments, Inorganic	P																							
		Benzaldehyde	100-52-7	N	0.011788	0.011788	0.011788	Solvents	V																							
		Benzyl alcohol	100-51-6	N	6.1827	6.1827	6.1827	Solvents, Coalscent	V																							
		Dibenzyl ether	103-50-4	N	0.0061385	0.0061385	0.0061385	Solvents	V																							
		Benzyl chloride	100-44-7	Y	0.00061348	0.00061348	0.00061348	Solvents	V																							
		m-Xylylene-diamine (Xylene Diamine, Meta-)	1477-55-0	N	0.32912	0.32912	0.32912	Binders, Monomers	V																							
		Polyoxypropylenediamine	9046-10-0	N	7.0396	7.0396	7.0396	Binders	V																							
		Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidylester and bisphenol A-(epichlorhydrin) epoxy	CBI	N	9.5263	9.5263	9.5263	Binders	P																							
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.19822	0.19822	0.19822	Chemicals	V																							
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	1.1232	1.1232	1.1232	Chemicals	V																							
Paint Spray Booth	Thinner 08450	Xylene	1330-20-7	Y	50	75	62.5	Solvents	V	7.15	7.15	0.0	94.3	77.2	215	0.037	0	0	0	0	0.52660335	1537.68177	0.49658696	1186.32149	0	0	0	0	0.02633017	76.8840886	0.02482935	59.3160744
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	10	25	17.5	Solvents	V																							
		Ethylbenzene	100-41-4	Y	10	19	14.5	Solvents	V																							
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	3	5	4.0	Solvents	V																							
		1,2,4-Trimethylbenzene	95-63-6	N	3	4.8	3.9	Solvents	V																							
		1,2,3-Trimethylbenzene	526-73-8	N	1	3	2.0	Solvents	V																							
		Cumene	98-82-8	Y	0	0.3	0.15	Solvents	V																							
Paint Spray Booths (Towers+Transitions)	Hempathane 55610	Acrylic resin	CBI	N	24.526	24.526	24.526	Binders	P	12.02	2.79	76.8	0.5	0.5	14100	19.00	84.1900032	31238.9222	81.120576	30100.0032	105.951536	39313.5962	2.28854893	849.172104	0.84190003	312.389222	0.81120576	301.000032	5.2975768	1965.67981	0.22828867	42.3535565
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	12.116	12.116	12.116	Solvents	V																							
		n-Butyl acetate	123-86-4	N	6.2178	6.2178	6.2178	Solvents	V																							
		Lecithin	8002-43-5	N	0.13981	0.13981	0.13981	Chemicals	P																							
		Block copolymer	CBI	N	0.20999	0.20999	0.20999	Chemicals	P																							
		Polyolefins	CBI	N	0.014071	0.014071	0.014071	Chemicals	P																							
		White spirit (Naphtha Medium Aliphatic)	64742-88-7	N	0.056285	0.056285	0.056285	Solvents	V																							
		1,3-bis(12-Hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	N	0.58846	0.58846	0.58846	Chemicals	V																							
		Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl)a	CBI	N	0.2522	0.2522	0.2522	Chemicals	V																							
		Titanium dioxide	13463-67-7	N	20.074	20.074	20.074	Pigments, Inorganic	P																							
		Silicon dioxide	7631-86-9	N	0.22424	0.22424	0.22424	Pigments, Inorganic	P																							
		Aluminium hydroxide	21645-51-2	N	0.67271	0.67271	0.67271	Pigments, Inorganic	P																							
		Aluminium oxide	1344-28-1	N	0.67271	0.67271	0.67271	Pigments, Inorganic	P																							
		Zirconium dioxide	1314-23-4	N	0.22424	0.22424	0.22424	Pigments, Inorganic	P																							
		Dipotassium oxide	12136-45-7	N	0.11212	0.11212	0.11212	Chemicals	P																							
		Phosphorus pentoxide	1314-56-3	N	0.22199	0.22199	0.22199	Chemicals	V																							
		Trimethylolpropane	77-99-6	N	0.22199	0.22199	0.22199	Binders, Monomers	V																							
		Barium sulfate	7727-43-7	N	10.507	10.507	10.507	Pigments, Inorganic	P																							
		Respirable quartz	14808-60-7	N	0.2915	0.2915	0.2915	Pigments, Inorganic	P																							
		Limestone	1317-65-3	N	7.246	7.246	7.246	Pigments, Inorganic	P																							
		Stearic acid	57-11-4	N	0.38542	0.38542	0.38542	Chemicals	V																							
		Lead powder (particle diameter < 1mm)	7439-92-1	Y	0.0003142	0.0003142	0.0003142	Pigments, Metallic	V																							
		Lead compounds (Lead Tetraoxide)	1314-41-6	Y	0.0010403	0.0010403	0.0010403	Pigments, Inorganic	P																							
		Zinc oxide	1314-13-2	N	0.031525	0.031525	0.031525	Pigments, Inorganic	P																							
		Trizinc bis(orthophosphate)	7779-90-0	N	1.0179	1.0179	1.0179	Pigments, Inorganic	P																							
		1,2,4-Trimethylbenzene	95-63-6	N	3.0047	3.0047	3.0047	Solvents	V																							
		Xylene	1330-20-7	Y	0.28169	0.28169	0.28169	Solvents	V																							
		Ethylbenzene	100-41-4	Y	0.023475	0.023475	0.023475	Solvents	V																							
		Cumene	98-82-8	Y	0.14085	0.14085	0.14085	Solvents	V																							

Process Equipment	Coating Product Name	Chemical Name	CAS No.	HAP?	Min Wt %	Max Wt %	Avg Wt %	Type	Physical Phase	Coating Density (lbs/gal)	VOC Content Less Exempt (lbs/gal)	Solids Wt %	Max HAP Wt %	Avg HAP Wt %	Max Yearly Usage (gal/yr)	Max Hourly Usage (gal/hr) [1]	Uncontrolled PM10		Uncontrolled PM2.5		Uncontrolled VOC		Uncontrolled HAP		PM10 After Control		PM2.5 After Control		VOC After Control		HAP After Control	
																	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)
		1,2,3-Trimethylbenzene	526-73-8	N	1.0329	1.0329	1.0329	Solvents	V																							
		1-Ethyl-2-methylbenzene	611-14-3	N	0.277	0.277	0.277	Solvents	V																							
		Benzene	71-43-2	Y	0.014486	0.014486	0.014486	Solvents	V																							
		bis (1,2,2,6,6-Pentamethyl-4-piperidyl) sebacate	41556-26-7	N	0.27998	0.27998	0.27998	Chemicals	V																							
		Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	82919-37-7	N	0.069995	0.069995	0.069995	Chemicals	V																							
		Water	7732-18-5	N	0.0010478	0.0010478	0.0010478	Solvents, Water	V																							
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	0.010478	0.010478	0.010478	Solvents	V																							
		Dibutyltin dilaurate	77-58-7	N	0.021441	0.021441	0.021441	Chemicals	P																							
		Hexamethylene-di-isocyanate (HDI)	822-06-0	Y	0.029393	0.029393	0.029393	Binders, Monomers	V																							
		Naphthalene	91-20-3	Y	0.0097912	0.0097912	0.0097912	Solvents	V																							
		Hexamethylene-1,6-diisocyanate homopolymer (HDI Homopolymer)	28182-81-2	N	8.7778	8.7778	8.7778	Binders	P																							
Paint Spray Booth	Thinner 08080	Xylene	1330-20-7	Y	75	90	82.5	Solvents	V	7.26	7.26	0.0	100.0	100.0	100	0.01712329	0	0	0	0	0.24864721	726.049845	0.24864721	726.049845	0	0	0	0	0.01243236	36.3024923	0.02934037	37.0285421
		Ethylbenzene	100-41-4	Y	10	25	17.5	Solvents	V																							
		Toluene	108-88-3	Y	1	3	2	Solvents	V																							
Paint Spray Booth	Thinner 08740	2-Methoxypropanol	1589-47-5	N	0.15895	0.15895	0.15895	Solvents	V	7.48	7.48	0.0	2.3	2.3	2000	0.34	0	0	0	0	5.12156087	14954.9577	0.11558137	337.4976	0	0	0	0	0.25607804	747.747886	0.01155814	16.87488
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	52.841	52.841	52.841	Solvents	V																							
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	23.148	23.148	23.148	Solvents	V																							
		1,2,4-Trimethylbenzene	95-63-6	N	15.04	15.04	15.04	Solvents	V																							
		Xylene	1330-20-7	Y	1.41	1.41	1.41	Solvents	V																							
		Ethylbenzene	100-41-4	Y	0.1175	0.1175	0.1175	Solvents	V																							
		Cumene	98-82-8	Y	0.705	0.705	0.705	Solvents	V																							
		1,2,3-Trimethylbenzene	526-73-8	N	5.17	5.17	5.17	Solvents	V																							
		1-Ethyl-2-methylbenzene	611-14-3	N	1.3865	1.3865	1.3865	Solvents	V																							
		Benzene	71-43-2	Y	0.0235	0.0235	0.0235	Solvents	V																							
Paint Spray Booths (Transitions)	Galvosil 15700	Xylene	1330-20-7	Y	3.7	3.7	3.7	Solvents	V	22.21	3.62	75.8	4.6095	4.61	2000	26.00	210.103046	8080.8864	202.44304	7786.27075	188.338999	7243.80765	53.2365652	2047.5602	2.10103046	80.808864	2.0244304	77.8627075	9.41694995	362.190383	5.49031506	105.582982
		Ethylbenzene	100-41-4	Y	0.8257	0.8257	0.8257	Solvents	V																							
		Toluene	108-88-3	Y	0.043951	0.043951	0.043951	Solvents	V																							
		Benzene	71-43-2	Y	0.0052528	0.0052528	0.0052528	Solvents	V																							
		Respirable quartz	14808-60-7	N	0.087898	0.087898	0.087898	Pigments, Inorganic	P																							
		Quaternary ammonium modified bentonite	121888-68-4	N	0.29161	0.29161	0.29161	Pigments, Inorganic	P																							
		2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	N	0.015031	0.015031	0.015031	Solvents	V																							
		Propyleneglycol (Propanediol, 1,2-)	57-55-6	N	0.015031	0.015031	0.015031	Solvents	V																							
		Polyamineamide salt	CBI	N	0.15031	0.15031	0.15031	Chemicals	P																							
		Ethanol + Ethanol (formed by reaction)	64-17-5	N	5.4218	5.4218	5.4218	Solvents	V																							
		2-Methoxypropanol	1589-47-5	N	0.018496	0.018496	0.018496	Solvents	V																							
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	6.1488	6.1488	6.1488	Solvents	V																							
		Propan-2-ol (Isopropyl Alcohol)	67-63-0	N	2.0892	2.0892	2.0892	Solvents	V																							
		Hydrogen chloride	7647-01-0	Y	0.0075949	0.0075949	0.0075949	Chemicals	V																							
		Ethylpolysilicate	11099-06-2	N	4.1948	4.1948	4.1948	Binders	V																							
		Amorphous silica	68611-44-9	N	0.22539	0.22539	0.22539	Pigments, Inorganic	P																							
		Kaolin (Clay)	1332-58-7	N	7.1788	7.1788	7.1788	Pigments, Inorganic	P																							
		Quartz (chrystalline, non respirable)	14808-60-7	N	0.33133	0.33133	0.33133	Pigments, Inorganic	P																							
		Mica	12001-26-2	N	0.15777	0.15777	0.15777	Pigments, Inorganic	P																							
		Feldspar-group minerals	68476-25-5	N	0.11833	0.11833	0.11833	Pigments, Inorganic	P																							
		Titanium dioxide	13463-67-7	N	0.023666	0.023666	0.023666	Pigments, Inorganic	P																							
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	0.88805	0.88805	0.88805	Pigments, Inorganic	V																							
		1,2,4-Trimethylbenzene	95-63-6	N	0.577	0.577	0.577	Solvents	V																							
		Cumene	98-82-8	Y	0.027047	0.027047	0.027047	Solvents	V																							
		1,2,3-Trimethylbenzene	526-73-8	N	0.19835	0.19835	0.19835	Solvents	V																							
		1-Ethyl-2-methylbenzene	611-14-3	N	0.053193	0.053193	0.053193	Solvents	V																							
		Water	7732-18-5	N	0.0018309	0.0018309	0.0018309	Solvents, Water	V																							
		Zinc oxide	1314-13-2	N	4.1069	4.1069	4.1069	Pigments, Inorganic	P																							
		Zinc chloride	7646-85-7	N	0.1184	0.1184	0.1184	Chemicals	P																							
		Zinc powder - zinc dust (stabilized)	7440-66-6	N	64.416	64.416	64.416	Pigments, Inorganic	P																							
Paint Spray Booths (Towers)	Hempadur 4774D	Bisphenol A-(epichlorhydrin) epoxy resin MW =< 700	25068-38-6	N	11.903	11.903	11.903	Binders	P	12.61	1.84	85.4	10.63	10.63	52000	43.00	222.270922	134396.371	214.167294	129496.504	158.110289	95601.5702	115.277023	69702.3857	2.22270922	1343.96371	2.14167294	1294.96504	7.90551446	4780.07851	11.5277023	3485.11929
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.0041691	0.0041691	0.0041691	Binders, Monomers	V																							
		4,4'-Isopropylidenediphenol	80-05-7	N	0.012988	0.012988	0.012988	Binders, Monomers	P																							
		Xylene	1330-20-7	Y	8.5404	8.5404	8.5404	Solvents	V																							
		Ethylbenzene	100-41-4	Y	1.8893	1.8893	1.8893	Solvents	V																							
		Toluene	108-88-3	Y	0.080569	0.080569	0.080569	Solvents	V																							
		Benzene	71-43-2	Y	0.0059709	0.0059709	0.0059709	Solvents	V																							
		Middle molecular epoxy resin MMW 700-1200	25068-38-6	N	5.9358	5.9358	5.9358	Binders	P																							
		Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	N	6.1535	6.1535	6.1535	Binders	V																							
		C12-14 alcohols	80206-82-2	N	0.12577	0.12577	0.12577	Chemicals	V																							
		Alkyd resin	CBI	N	0.13579	0.13579	0.13579	Binders	P																							
		Nonane	111-84-2	N	0.0059646	0.0059646	0.0059646	Chemicals	V																							
		C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)	64742-48-9	N	0.051099	0.051099	0.051099	Solvents	V																							
		1,3-bis(12-hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	N	0.32433	0.32433	0.32433	Chemicals	V																							
		Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl)a	CBI	N	0.139	0.139	0.139	Chemicals	V																							
		Titanium dioxide	13463-67-7	N	12.644	12.644	12.644	Pigments, Inorganic	P																							
		Silicon dioxide	7631-86-9	N	0.13239	0.13239	0.13239	Pigments, Inorganic	P																							
		Aluminium hydroxide	21645-51-2	N	0.33099	0.33099	0.33099	Pigments, Inorganic	P																							
		Zirconium dioxide	1314-23-4	N	0.13239	0.13239	0.13239	Pigments, Inorganic	P																							
		Limestone	1317-65-3	N	18.449	18.449	18.449	Pigments, Inorganic	P																							
		Stearic acid	57-11-4	N	0.98136	0.98136	0.98136	Chemicals	V																							
		Respirable quartz	14808-60-7	N	0.78508	0.78508	0.78508	Pigments, Inorganic	P																							
		Nepheline syenite	37244-96-5	N	19.038	19.038	19.038	Pigments, Inorganic	P																							
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	3.8909	3.8909	3.8909	Solvents	V																							
		Water	7732-18-5	N	0.0038948	0.0038948	0.0038948	Solvents, Water	V																							
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.26345	0.26345	0.26345	Chemicals	V																							
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.10924353	0.10924353	0.10924353	Solvents	V																							
		Allyl glycidyl ether	106-92-3	N	0.00026186	0.00026186	0.00026186	Solvents	V																							
		3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	N	0.21937	0.21937	0.21937	Binders, Monomers	V																							
		Polymer of: triethylenetetramine, polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and trie	CBI	N	6.3859	6.3859	6.3859	Binders	P																							
		Salicylic acid	69-72-7	N	0.1239	0.1239	0.1239	Chemicals	P																							
		Phenol	108-95-2	Y	0.0002483	0.0002483	0.0002483	Solvents	V																							
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.19554	0.19554	0.19554	Chemicals	V																							
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	1.108	1.108	1.108	Chemicals	V																							
		Bisphenol A-(epichlorhydrin) epoxy resin MW =< 700	25068-38-6	N	14.279	14.279	14.279	Binders	P																							
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.0027435	0.0027435	0.0027435	Binders, Monomers	V																							
		4,4'-Isopropylidenediphenol	80-05-7	N	0.014151	0.014151	0.014151	Binders, Monomers	P																							
		2-Methylstyrene	611-15-4	N	0.0001	0.0001	0.0001	Binders, Monomers	V																							
		Phenol	108-95-2	Y	0.024016	0.024016	0.024016	Solvents	V																							
		2-Phenylpropene (Methyl Styrene)	98-83-9	N	0.024016	0.024016	0.024016	Binders, Monomers	V																							
		Methylstyrenated phenol	68512-30-1	N	4.7561	4.7561	4.7561	Binders	V																							
		Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	N	4.7179	4.7179	4.7179	Binders	V																							
		C12-14 alcohols	80206-82-2	N	0.096431	0.096431	0.096431	Chemicals	V																							
		n-Butyl acetate	123-86-4	N	7.1174	7.1174	7.1174	Solvents	V																							

Process Equipment	Coating Product Name	Chemical Name	CAS No.	HAP?	Min Wt %	Max Wt %	Avg Wt %	Type	Physical Phase	Coating Density (lbs/gal)	VOC Content Less Exempt (lbs/gal)	Solids Wt %	Max HAP Wt %	Avg HAP Wt %	Max Yearly Usage (gal/yr)	Max Hourly Usage (gal/hr) [1]	Uncontrolled PM10		Uncontrolled PM2.5		Uncontrolled VOC		Uncontrolled HAP		PM10 After Control		PM2.5 After Control		VOC After Control		HAP After Control	
																	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	ERP (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)	PTE (lbs/hr)	PTE (lbs/yr)
Paint Spray Booths (Transitions)	Hempaprime Multi 500	Water	7732-18-5	N	0.005115	0.005115	0.005115	Solvents, Water	V	12.12	1.61	86.8	0.1572	0.157	8000	26.00	131.291597	20198.7072	126.504924	19462.296	83.5374592	12851.9168	0.99063379	152.405199	1.31291597	201.987072	1.26504924	194.62296	4.17687296	642.59584	0.09906338	7.62025996
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	3.7367	3.7367	3.7367	Solvents	V																							
		Xylene	1330-20-7	Y	0.0089759	0.0089759	0.0089759	Solvents	V																							
		Ethylbenzene	100-41-4	Y	0.0019703	0.0019703	0.0019703	Solvents	V																							
		Alkyd resin	CBI	N	0.24921	0.24921	0.24921	Binders	P																							
		Nonane	111-84-2	N	0.010946	0.010946	0.010946	Chemicals	V																							
		C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)	64742-48-9	N	0.093777	0.093777	0.093777	Solvents	V																							
		1,3-bis(12-hydroxycta-decanamide-N-methyle) benzene	128554-52-9	N	0.55948	0.55948	0.55948	Chemicals	V																							
		Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl]a	CBI	N	0.23978	0.23978	0.23978	Chemicals	V																							
		Titanium dioxide	13463-67-7	N	4.3217	4.3217	4.3217	Pigments, Inorganic	P																							
		Silicon dioxide	7631-86-9	N	0.045253	0.045253	0.045253	Pigments, Inorganic	P																							
		Aluminium hydroxide	21645-51-2	N	0.11313	0.11313	0.11313	Pigments, Inorganic	P																							
		Zirconium dioxide	1314-23-4	N	0.045253	0.045253	0.045253	Pigments, Inorganic	P																							
		Carbon black	1333-86-4	N	0.02085	0.02085	0.02085	Pigments, Organic	P																							
		Iron hydroxide oxide	20344-49-4	N	0.047781	0.047781	0.047781	Pigments, Inorganic	P																							
		Respirable quartz	14808-60-7	N	1.0401	1.0401	1.0401	Pigments, Inorganic	P																							
		Nepheline syenite	37244-96-5	N	28.731	28.731	28.731	Pigments, Inorganic	P																							
		Middle molecular epoxy resin MMW 700-1200	25068-38-6	N	3.5132	3.5132	3.5132	Binders	P																							
		Heptan-2-one (Methyl Amyl Ketone)	110-43-0	N	1.1711	1.1711	1.1711	Solvents	V																							
		Polyolefins	CBI	N	0.041353	0.041353	0.041353	Chemicals	P																							
		White spirit (Naphtha Medium Aliphatic)	64742-88-7	N	0.16541	0.16541	0.16541	Solvents	V																							
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.28814	0.28814	0.28814	Chemicals	V																							
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.11947788	0.11947788	0.11947788	Solvents	V																							
		Allyl glycidyl ether	106-92-3	N	0.0002864	0.0002864	0.0002864	Solvents	V																							
		Talc (non-asbestiform)	14807-96-6	N	15.003	15.003	15.003	Pigments, Inorganic	P																							
		Fatty acids, c18-unsatd., dimers, polymers with triethylenetetramine, reaction products with poly (bispher	68424-41-9	N	7.3801	7.3801	7.3801	Binders	V																							
		3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	N	0.29422	0.29422	0.29422	Binders, Monomers	V																							
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.15852	0.15852	0.15852	Chemicals	V																							
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	0.89828	0.89828	0.89828	Chemicals	V																							
		2-Methoxypropanol	1589-47-5	N	0.0017684	0.0017684	0.0017684	Solvents	V																							
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	0.58789	0.58789	0.58789	Solvents	V																							
		2-Methoxypropyl acetate	70657-70-4	N	0.000563	0.000563	0.000563	Solvents	V																							
		2-Methoxy-1-methylethyl acetate (Methoxypropylacetate)	108-65-6	N	0.18711	0.18711	0.18711	Solvents	V																							
Paint Spray Booth	Methyl Ethyl Ke	Methyl Ethyl Ketone	78-93-3	N	100	100	100	Solvents	V	6.71	6.71	0.0	0.0	0.0	6000	1.03	0	0	0	0	13.795274	40282.2	0	0	0	0	0	0	0.6897637	2014.11	0	0
Metal Spray Booth	Zinc Wire	Zinc	7440-66-6	N	99.9	99.9	99.9	Pigments, Inorganic	P	Zinc Wire	0	100	0.0015	0.002	3504000 lbs	400.0 lbs/hr	161	1412812.8	155.4	1361304	0	0	0.00600	52.56	0.016128	141.28128	0.016	136.1304	0	0	2.52E-07	0.00220752
		Zinc oxide	1314-13-2	N	0	0	0	Pigments, Inorganic	P																							
		Lead	7439-92-1	Y	0.0014	0.0014	0.0014	Pigments, Inorganic	P																							
		Cadmium	7440-43-9	Y	0.0001	0.0001	0.0001	Pigments, Inorganic	P																							
Tower Blast (BLDG C)	Steel Shot	Manganese	7439-96-5	Y	0	1.2	0.6	Abrasives	P								17.5	153300	4.55	39858	0	0	0.210	920	0.175	1533	0.0455	399	0	0	0.00210	18.4
		Chromium	7440-47-3	Y	0	0.1	0.05	Abrasives	P																							
		Nickel	7440-02-0	Y	0	0.1	0.05	Abrasives	P																							
		Copper	7440-50-8	N	0	0.1	0.05	Abrasives	P																							
Plate Blast (BLDG A)	Steel Shot	Manganese	7439-96-5	Y	0	1.2	0.6	Abrasives	P								30.0	262800	30.0	262800	0	0	1.80	7884	0.300	2628	0.300	2628	0	0	0.0180	158
		Chromium	7440-47-3	Y	0	0.1	0.05	Abrasives	P																							
		Nickel	7440-02-0	Y	0	0.1	0.05	Abrasives	P																							
		Copper	7440-50-8	N	0	0.1	0.05	Abrasives	P																							

Table Notes:

= Hazardous Air Pollutant (HAP)

V = vapor phase; P = particulate (solid) phase

(1) Maximum hourly coating usage rate per coating based upon sequence of parts to be sprayed and coating application rate data provided by Marmen. Coatings may be applied simultaneously in Booths #1 and 2 ("Large Booth", "Small Booth").

= Thinner conservatively included in PTE calculations even though thinner is already accounted for in "as-mixed" paint coating formulations, per coating air quality data sheets.

Equipment	Coating Product Name	Chemical Name	CAS No.	HAP?	Min Wt %	Max Wt %	Avg Wt %	Type	Physical Phase (Vapor or Particulate)	Regulated VOC?	Excepted from Part 212 Review Pursuant to 212-1.4(l)(1)?	Coating Density (lbs/gal)	VOC Content Less Exempt (lbs/gal)	Solids Wt %	Max Yearly Usage (gal)	Max Hourly Usage Per Spray Gun (gal/hr)	Fractional Transfer Loss	No. of Booths	ERP (lbs/hr)	Uncontrolled Yearly Emissions (lbs/yr)
Paint Spray Booths (Towers)	Hempadur Zinc 1736/G (Avantguard 750)	Middle molecular epoxy resin MMW 700-1200	25068-38-6	N	8.6974	8.6974	8.6974	Binders	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	17.2783	10284.6755
		Xylene	1330-20-7	Y	9.1886	9.1886	9.1886	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	73.0163	43462.078
		Ethylbenzene	100-41-4	Y	2.0443	2.0443	2.0443	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	16.2448	9669.539
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.0016373	0.0016373	0.0016373	Binders, Monomers	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	0.0130	7.744429
		Toluene	108-88-3	Y	0.10548	0.10548	0.10548	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	0.8382	498.9204
		4,4'-Isopropylidenediphenol	80-05-7	N	0.0017459	0.0017459	0.0017459	Binders, Monomers	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	0.0035	2.06452675
		Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	N	0.94899	0.94899	0.94899	Binders	V	N	N	18.92	2.75	85.2	25000	21.00	1.00	2	7.5411	4488.7227
		C12-14 Alcohols	80206-82-2	N	0.019397	0.019397	0.019397	Chemicals	V	N	N	18.92	2.75	85.2	25000	21.00	1.00	2	0.1541	91.74781
		Benzene	71-43-2	Y	0.0075039	0.0075039	0.0075039	Solvents	V	Y	N	18.92	2.75	85.2	25000	21.00	1.00	2	0.0596	35.493447
		Respirable quartz	14808-60-7	N	0.010911	0.010911	0.010911	Pigments, Inorganic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	0.0217	12.9022575
		Quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with	71011-25-1	N	1.0912	1.0912	1.0912	Pigments, Inorganic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	2.1678	1290.344
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	2.6424	2.6424	2.6424	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	20.9976	12498.552
		Water	7732-18-5	N	0.002645	0.002645	0.002645	Solvents, Water	V			18.92	2.75	85.2	25000	21.00	1.00	2	0.0210	12.51085
		2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	N	0.013225	0.013225	0.013225	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	0.1051	62.55425
		Propyleneglycol (Propanediol, 1,2-)	57-55-6	N	0.013225	0.013225	0.013225	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	0.1051	62.55425
		Polyamineamide salt	CBI	N	0.13225	0.13225	0.13225	Chemicals	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	0.2627	156.385625
		Zeolites	1318-02-1	N	0.13225	0.13225	0.13225	Pigments, Inorganic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	0.2627	156.385625
		Pigment black 10, 77265 (Graphite)	7782-42-5	N	0.96984	0.96984	0.96984	Pigments, Inorganic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	1.9267	1146.8358
		Zinc powder - zinc dust (stabilized)	7440-66-6	N	64.453	64.453	64.453	Pigments, Metallic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	128.0423	76215.6725
		Zinc oxide	1314-13-2	N	4.1067	4.1067	4.1067	Pigments, Inorganic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	8.1584	4856.17275
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.43907	0.43907	0.43907	Chemicals	V	N	N	18.92	2.75	85.2	25000	21.00	1.00	2	3.4890	2076.8011
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.1820625	0.1820625	0.1820625	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	1.4467	861.155625
		Allyl glycidyl ether	106-92-3	N	0.00043643	0.00043643	0.00043643	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	0.0035	2.0643139
		Glass beads	65997-17-3	N	1.4113	1.4113	1.4113	Pigments, Inorganic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	2.8037	1668.86225
		Precipitated silica	112926-00-8	N	0.043497	0.043497	0.043497	Pigments, Inorganic	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	0.0864	51.4352025
		2-Methoxypropanol	1589-47-5	N	0.0018376	0.0018376	0.0018376	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	0.0146	8.691848
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	0.61094	0.61094	0.61094	Solvents	V	Y	Y	18.92	2.75	85.2	25000	21.00	1.00	2	4.8548	2889.7462
		3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	N	0.085172	0.085172	0.085172	Binders, Monomers	V	N	N	18.92	2.75	85.2	25000	21.00	1.00	2	0.6768	402.86356
		Polymer of: triethylenetetramine, polyaminoamide and bisphenol A-(epichlorhydrin) epoxy resin	CBI	N	2.4353	2.4353	2.4353	Binders	P	N	N	18.92	2.75	85.2	25000	21.00	0.25	2	4.8380	2879.74225
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.058181	0.058181	0.058181	Chemicals	V	N	N	18.92	2.75	85.2	25000	21.00	1.00	2	0.4623	275.19613
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	0.32969	0.32969	0.32969	Chemicals	V	N	N	18.92	2.75	85.2	25000	21.00	1.00	2	2.6198	1559.4337
Paint Spray Booths (Transitions)	Hempadur Multi-Strength 35842 (Transitions)	Bisphenol A-(epichlorhydrin) epoxy resin MW =< 700	25068-38-6	N	37.211	37.211	37.211	Binders	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	52.0507	25024.3975
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.00095748	0.00095748	0.00095748	Binders, Monomers	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.0054	2.5756212
		4,4'-Isopropylidenediphenol	80-05-7	N	0.036876	0.036876	0.036876	Binders, Monomers	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	0.0516	24.79911
		1,6-Hexanediol diglycidylether	16096-31-4	N	10.631	10.631	10.631	Binders	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	14.8706	7149.3475
		2,6-Dimethylheptan-4-one (Diisobutyl Ketone)	108-83-8	N	0.11156	0.11156	0.11156	Solvents	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.6242	300.0964
		4,6-Dimethyl-2-heptanone	19549-80-5	N	0.041816	0.041816	0.041816	Solvents	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.2340	112.48504
		Fluoro polysiloxane	CBI	N	0.0013189	0.0013189	0.0013189	Chemicals	P	N	Y	10.76	0.185	93.3	25000	26.00	0.25	2	0.0018	0.88696025
		Octamethylcyclotetrasiloxane (D4)	556-67-2	N	0.00015361	0.00015361	0.00015361	Chemicals	V	Exempt	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.0009	0.4132109
		Decamethylcyclopentasiloxane (D5)	541-02-6	N	0.00015361	0.00015361	0.00015361	Chemicals	V	Exempt	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.0009	0.4132109
		Dodecamethylcyclohexasiloxane (D6)	540-97-6	N	0.00015361	0.00015361	0.00015361	Chemicals	V	Exempt	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.0009	0.4132109
		Hydrogenated castor oil	8001-78-3	N	1.4549	1.4549	1.4549	Chemicals	V	N	Y	10.76	0.185	93.3	25000	26.00	1.00	2	8.1405	3913.681
		Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	100545-48-0	N	0.48498	0.48498	0.48498	Chemicals	P	N	Y	10.76	0.185	93.3	25000	26.00	0.25	2	0.6784	326.14905
		Titanium dioxide	13463-67-7	N	3.7797	3.7797	3.7797	Pigments, Inorganic	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	5.2870	2541.84825
		Silicon dioxide	7631-86-9	N	0.039578	0.039578	0.039578	Pigments, Inorganic	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	0.0554	26.616205
		Aluminium hydroxide	21645-51-2	N	0.098945	0.098945	0.098945	Pigments, Inorganic	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	0.1384	66.5405125
		Zirconium dioxide	1314-23-4	N	0.039578	0.039578	0.039578	Pigments, Inorganic	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	0.0554	26.616205
		Talc (non-asbestiform)	14807-96-6	N	10.679	10.679	10.679	Pigments, Inorganic	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	14.9378	7181.6275
		Respirable quartz	14808-60-7	N	0.10785	0.10785	0.10785	Pigments, Inorganic	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	0.1509	72.529125
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.7727	0.7727	0.7727	Chemicals	V	N	N	10.76	0.185	93.3	25000	26.00	1.00	2	4.3234	2078.563
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.3204074	0.3204074	0.3204074	Solvents	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	1.7927	861.895906
		Allyl glycidyl ether	106-92-3	N	0.00076804	0.00076804	0.00076804	Solvents	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.0043	2.0660276
		Glass beads	65997-17-3	N	10.088	10.088	10.088	Pigments, Inorganic	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	14.1111	6784.18
		Benzaldehyde	100-52-7	N	0.011788	0.011788	0.011788	Solvents	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.0660	31.70972
		Benzyl alcohol	100-51-6	N	6.1827	6.1827	6.1827	Solvents, Coalscent	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	34.5934	16631.463
		Dibenzyl ether	103-50-4	N	0.0061385	0.0061385	0.0061385	Solvents	V	N	Y	10.76	0.185	93.3	25000	26.00	1.00	2	0.0343	16.512565
		Benzyl chloride	100-44-7	Y	0.00061348	0.00061348	0.00061348	Solvents	V	Y	N	10.76	0.185	93.3	25000	26.00	1.00	2	0.0034	1.6502612
		m-Xylylene-diamine (Xylene Diamine, Meta-)	1477-55-0	N	0.32912	0.32912	0.32912	Binders, Monomers	V	Y	Y	10.76	0.185	93.3	25000	26.00	1.00	2	1.8415	885.3328
		Polyoxypropylenediamine	9046-10-0	N	7.0396	7.0396	7.0396	Binders	V	N	N	10.76	0.185	93.3	25000	26.00	1.00	2	39.3880	18936.524
		Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidylester and bisphenol A-(epichlorhydrin) epo	CBI	N	9.5263	9.5263	9.5263	Binders	P	N	N	10.76	0.185	93.3	25000	26.00	0.25	2	13.3254	6406.43675
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.19822	0.19822	0.19822	Chemicals	V	N	N	10.76	0.185	93.3	25000	26.00	1.00	2	1.1091	533.2118
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	1.1232	1.1232	1.1232	Chemicals	V	N	N	10.76	0.185	93.3	25000	26.00	1.00	2	6.2845	3021.408
Paint Spray Booth	Thinner 08450	Xylene	1330-20-7	Y	50	75	62.5	Solvents	V	Y	Y	7.15	7.15	0.0	215	0.037	1.00	2	0.3950	961.0511079
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	10	25	17.5	Solvents	V	Y	Y	7.15	7.15	0.0	215	0.037	1.00	2	0.1317	269.0943102
		Ethylbenzene	100-41-4	Y	10	19	14.5	Solvents	V	Y	Y	7.15	7.15	0.0	215	0.037	1.00	2	0.1001	222.963857
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	3	5	4.0	Solvents	V	Y	Y	7.15	7.15	0.0	215	0.037	1.00	2	0.0263	61.5072709
		1,2,4-Trimethylbenzene	95-63-6	N	3	4.8	3.9	Solvents	V	Y	Y	7.15	7.15	0.0	215	0.037	1.00	2	0.0253	59.96958913
		1,2,3-Trimethylbenzene	526-73-8	N	1	3	2.0	Solvents	V	Y	Y	7.15	7.15	0.0	215	0.037	1.00	2	0.0158	30.75363545
		Cumene	98-82-8	Y	0	0.3	0.15	Solvents	V	Y	Y	7.15	7.15	0.0	215	0.037	1.00	2	0.0016	2.306522659
		Acrylic resin	CBI	N	24.526	24.526	24.526	Binders	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	28.0062	10391.78883
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	12.116	12.116	12.116	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	55.3410	20534.43912
		n-Butyl acetate	123-86-4	N	6.2178	6.2178	6.2178	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	28.4004	10538.0518
		Lecithin	8002-43-5	N	0.13981	0.13981	0.13981	Chemicals	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.1596	59.23819605

Equipment	Coating Product Name	Chemical Name	CAS No.	HAP?	Min Wt %	Max Wt %	Avg Wt %	Type	Physical Phase (Vapor or Particulate)	Regulated VOC?	Excepted from Part 212 Review Pursuant to 212-1.4(l)(1)?	Coating Density (lbs/gal)	VOC Content Less Exempt (lbs/gal)	Solids Wt %	Max Yearly Usage (gal)	Max Hourly Usage Per Spray Gun (gal/hr)	Fractional Transfer Loss	No. of Booths	ERP (lbs/hr)	Uncontrolled Yearly Emissions (lbs/yr)
Paint Spray Booths (Towers+Transitions)	Hempathane 55610	Block copolymer	CBI	N	0.20999	0.20999	0.20999	Chemicals	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.2398	88.97381295
		Polyolefins	CBI	N	0.014071	0.014071	0.014071	Chemicals	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.0161	5.961953055
		White spirit (Naphtha Medium Aliphatic)	64742-88-7	N	0.056285	0.056285	0.056285	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	0.2571	95.3929437
		1,3-bis(12-Hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	N	0.58846	0.58846	0.58846	Chemicals	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	2.6878	997.3337772
		Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl]	CBI	N	0.2522	0.2522	0.2522	Chemicals	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	1.1519	427.433604
		Titanium dioxide	13463-67-7	N	20.074	20.074	20.074	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	22.9225	8505.45417
		Silicon dioxide	7631-86-9	N	0.22424	0.22424	0.22424	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.2561	95.0116092
		Aluminium hydroxide	21645-51-2	N	0.67271	0.67271	0.67271	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.7682	285.0305906
		Aluminium oxide	1344-28-1	N	0.67271	0.67271	0.67271	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.7682	285.0305906
		Zirconium dioxide	1314-23-4	N	0.22424	0.22424	0.22424	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.2561	95.0116092
		Dipotassium oxide	12136-45-7	N	0.11212	0.11212	0.11212	Chemicals	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.1280	47.5058046
		Phosphorus pentoxide	1314-56-3	N	0.22199	0.22199	0.22199	Chemicals	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	1.0140	376.2330918
		Trimethylolpropane	77-99-6	N	0.22199	0.22199	0.22199	Binders, Monomers	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	1.0140	376.2330918
		Barium sulfate	7727-43-7	N	10.507	10.507	10.507	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	11.9979	4451.868435
		Respirable quartz	14808-60-7	N	0.2915	0.2915	0.2915	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.3329	123.5100075
		Limestone	1317-65-3	N	7.246	7.246	7.246	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	8.2742	3070.16643
		Stearic acid	57-11-4	N	0.38542	0.38542	0.38542	Chemicals	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	1.7604	653.2175244
		Lead powder (particle diameter < 1mm)	7439-92-1	Y	0.0003142	0.0003142	0.0003142	Pigments, Metallic	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	0.0014	0.532512444
		Lead compounds (Lead Tetraoxide)	1314-41-6	Y	0.0010403	0.0010403	0.0010403	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.0012	0.440780312
		Zinc oxide	1314-13-2	N	0.031525	0.031525	0.031525	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.0360	13.35730013
		Trizinc bis(orthophosphate)	7779-90-0	N	1.0179	1.0179	1.0179	Pigments, Inorganic	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	1.1623	431.2893195
		1,2,4-Trimethylbenzene	95-63-6	N	3.0047	3.0047	3.0047	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	13.7243	5092.425654
		Xylene	1330-20-7	Y	0.28169	0.28169	0.28169	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	1.2866	477.4138458
		Ethylbenzene	100-41-4	Y	0.023475	0.023475	0.023475	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	0.1072	39.7858995
		Cumene	98-82-8	Y	0.14085	0.14085	0.14085	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	0.6433	238.715397
		1,2,3-Trimethylbenzene	526-73-8	N	1.0329	1.0329	1.0329	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	4.7179	1750.579578
		1-Ethyl-2-methylbenzene	611-14-3	N	0.277	0.277	0.277	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	1.2652	469.46514
		Benzene	71-43-2	Y	0.014486	0.014486	0.014486	Solvents	V	Y	N	12.02	2.79	76.8	14100	19.00	1.00	2	0.0662	24.55116252
		bis (1,2,2,6,6-Pentamethyl-4-piperidyl) sebacate	41556-26-7	N	0.27998	0.27998	0.27998	Chemicals	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	1.2788	474.5157036
		Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	82919-37-7	N	0.069995	0.069995	0.069995	Chemicals	V	N	N	12.02	2.79	76.8	14100	19.00	1.00	2	0.3197	118.6289259
		Water	7732-18-5	N	0.0010478	0.0010478	0.0010478	Solvents, Water	V			12.02	2.79	76.8	14100	19.00	1.00	2	0.0048	1.775832396
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	0.010478	0.010478	0.010478	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	0.0479	17.75832396
		Dibutyltin dilaurate	77-58-7	N	0.021441	0.021441	0.021441	Chemicals	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	0.0245	9.084658905
		Hexamethylene-di-isocyanate (HDI)	822-06-0	Y	0.029393	0.029393	0.029393	Binders, Monomers	V	Y	N	12.02	2.79	76.8	14100	19.00	1.00	2	0.1343	49.81584426
		Naphthalene	91-20-3	Y	0.0097912	0.0097912	0.0097912	Solvents	V	Y	Y	12.02	2.79	76.8	14100	19.00	1.00	2	0.0447	16.59432158
		Hexamethylene-1,6-diisocyanate homopolymer (HDI Homopolymer)	28182-81-2	N	8.7778	8.7778	8.7778	Binders	P	N	N	12.02	2.79	76.8	14100	19.00	0.25	2	10.0234	3719.197749
Paint Spray Booth	Thinner 08080	Xylene	1330-20-7	Y	75	90	82.5	Solvents	V	Y	Y	7.26	7.26	0.0	100	0.01712329	1.00	2	0.2238	598.9911222
		Ethylbenzene	100-41-4	Y	10	25	17.5	Solvents	V	Y	Y	7.26	7.26	0.0	100	0.01712329	1.00	2	0.0622	127.0587229
		Toluene	108-88-3	Y	1	3	2	Solvents	V	Y	Y	7.26	7.26	0.0	100	0.01712329	1.00	2	0.0075	14.5209969
Paint Spray Booth	Thinner 08740	2-Methoxypropanol	1589-47-5	N	0.15895	0.15895	0.15895	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	0.0081	23.77892
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	52.841	52.841	52.841	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	2.7072	7905.0136
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	23.148	23.148	23.148	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	1.1859	3462.9408
		1,2,4-Trimethylbenzene	95-63-6	N	15.04	15.04	15.04	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	0.7705	2249.984
		Xylene	1330-20-7	Y	1.41	1.41	1.41	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	0.0722	210.936
		Ethylbenzene	100-41-4	Y	0.1175	0.1175	0.1175	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	0.0060	17.578
		Cumene	98-82-8	Y	0.705	0.705	0.705	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	0.0361	105.468
		1,2,3-Trimethylbenzene	526-73-8	N	5.17	5.17	5.17	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	0.2649	773.432
		1-Ethyl-2-methylbenzene	611-14-3	N	1.3865	1.3865	1.3865	Solvents	V	Y	Y	7.48	7.48	0.0	2000	0.34	1.00	2	0.0710	207.4204
		Benzene	71-43-2	Y	0.0235	0.0235	0.0235	Solvents	V	Y	N	7.48	7.48	0.0	2000	0.34	1.00	2	0.0012	3.5156
Paint Spray Booths (Transitions)	Galvosil 15700 (Transitions)	Xylene	1330-20-7	Y	3.7	3.7	3.7	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	42.7320	1643.54
		Ethylbenzene	100-41-4	Y	0.8257	0.8257	0.8257	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	9.5362	366.77594
		Toluene	108-88-3	Y	0.043951	0.043951	0.043951	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	0.5076	19.5230342
		Benzene	71-43-2	Y	0.0052528	0.0052528	0.0052528	Solvents	V	Y	N	22.21	3.62	75.8	2000	26.00	1.00	2	0.0607	2.33329376
		Respirable quartz	14808-60-7	N	0.087898	0.087898	0.087898	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.2538	9.7610729
		Quaternary ammonium modified bentonite	121888-68-4	N	0.29161	0.29161	0.29161	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.8420	32.3832905
		2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	N	0.015031	0.015031	0.015031	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	0.1736	6.6767702
		Propyleneglycol (Propanediol, 1,2-)	57-55-6	N	0.015031	0.015031	0.015031	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	0.1736	6.6767702
		Polyamineamide salt	CBI	N	0.15031	0.15031	0.15031	Chemicals	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.4340	16.6919255
		Ethanol + Ethanol (formed by reaction)	64-17-5	N	5.4218	5.4218	5.4218	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	62.6175	2408.36356
		2-Methoxypropanol	1589-47-5	N	0.018496	0.018496	0.018496	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	0.2136	8.2159232
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	6.1488	6.1488	6.1488	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	71.0137	2731.29696
		Propan-2-ol (Isopropyl Alcohol)	67-63-0	N	2.0892	2.0892	2.0892	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	24.1286	928.02264
		Hydrogen chloride	7647-01-0	Y	0.0075949	0.0075949	0.0075949	Chemicals	V	N	N	22.21	3.62	75.8	2000	26.00	1.00	2	0.0877	3.37365458
		Ethylpolysilicate	11099-06-2	N	4.1948	4.1948	4.1948	Binders	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	48.4466	1863.33016
		Amorphous silica	68611-44-9	N	0.22539	0.22539	0.22539	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.6508	25.0295595
		Kaolin (Clay)	1332-58-7	N	7.1788	7.1788	7.1788	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	20.7273	797.20574
		Quartz (chrystalline, non respirable)	14808-60-7	N	0.33133	0.33133	0.33133	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.9566	36.7941965
		Mica	12001-26-2	N	0.15777	0.15777	0.15777	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.4555	17.5203585
		Feldspar-group minerals	68476-25-5	N	0.11833	0.11833	0.11833	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.3417	13.1405465
		Titanium dioxide	13463-67-7	N	0.023666	0.023666	0.023666	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.0683	2.6281093
		Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	N	0.88805	0.88805	0.88805	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	10.2563	394.47181
		1,2,4-Trimethylbenzene	95-63-6	N	0.577	0.577	0.577	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	6.6639	256.3034
		Cumene	98-82-8	Y	0.027047	0.027047	0.027047	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	0.3124	12.0142774

Equipment	Coating Product Name	Chemical Name	CAS No.	HAP?	Min Wt %	Max Wt %	Avg Wt %	Type	Physical Phase (Vapor or Particulate)	Regulated VOC?	Excepted from Part 212 Review Pursuant to 212-1.4(l)(1)?	Coating Density (lbs/gal)	VOC Content Less Exempt (lbs/gal)	Solids Wt %	Max Yearly Usage (gal)	Max Hourly Usage Per Spray Gun (gal/hr)	Fractional Transfer Loss	No. of Booths	ERP (lbs/hr)	Uncontrolled Yearly Emissions (lbs/yr)
		1,2,3-Trimethylbenzene	526-73-8	N	0.19835	0.19835	0.19835	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	2.2908	88.10707
		1-Ethyl-2-methylbenzene	611-14-3	N	0.053193	0.053193	0.053193	Solvents	V	Y	Y	22.21	3.62	75.8	2000	26.00	1.00	2	0.6143	23.6283306
		Water	7732-18-5	N	0.0018309	0.0018309	0.0018309	Solvents, Water	V			22.21	3.62	75.8	2000	26.00	1.00	2	0.0211	0.81328578
		Zinc oxide	1314-13-2	N	4.1069	4.1069	4.1069	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	11.8579	456.071245
		Zinc chloride	7646-85-7	N	0.1184	0.1184	0.1184	Chemicals	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	0.3419	13.14832
		Zinc powder - zinc dust (stabilized)	7440-66-6	N	64.416	64.416	64.416	Pigments, Inorganic	P	N	N	22.21	3.62	75.8	2000	26.00	0.25	2	185.9883	7153.3968
Paint Spray Booths (Towers)	Hempadur 4774D (Towers)	Bisphenol A-(epichlorhydrin) epoxy resin MW =< 700	25068-38-6	N	11.903	11.903	11.903	Binders	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	32.2708	19512.5879
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.0041691	0.0041691	0.0041691	Binders, Monomers	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	0.0452	27.33762252
		4,4'-Isopropylidenediphenol	80-05-7	N	0.012988	0.012988	0.012988	Binders, Monomers	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	0.0352	21.2912284
		Xylene	1330-20-7	Y	8.5404	8.5404	8.5404	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	92.6172	56001.11088
		Ethylbenzene	100-41-4	Y	1.8893	1.8893	1.8893	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	20.4887	12388.51796
		Toluene	108-88-3	Y	0.080569	0.080569	0.080569	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	0.8737	528.3070468
		Benzene	71-43-2	Y	0.0059709	0.0059709	0.0059709	Solvents	V	Y	N	12.61	1.84	85.4	52000	43.00	1.00	2	0.0648	39.15238548
		Middle molecular epoxy resin MMW 700-1200	25068-38-6	N	5.9358	5.9358	5.9358	Binders	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	16.0928	9730.55694
		Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	N	6.1535	6.1535	6.1535	Binders	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	66.7322	40349.7302
		C12-14 alcohols	80206-82-2	N	0.12577	0.12577	0.12577	Chemicals	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	1.3639	824.699044
		Alkyd resin	CBI	N	0.13579	0.13579	0.13579	Binders	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	0.3681	222.600547
		Nonane	111-84-2	N	0.0059646	0.0059646	0.0059646	Chemicals	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	0.0647	39.11107512
		C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)	64742-48-9	N	0.051099	0.051099	0.051099	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	0.5541	335.0663628
		1,3-bis(12-hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	N	0.32433	0.32433	0.32433	Chemicals	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	3.5172	2126.696676
		Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl]	CBI	N	0.139	0.139	0.139	Chemicals	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	1.5074	911.4508
		Titanium dioxide	13463-67-7	N	12.644	12.644	12.644	Pigments, Inorganic	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	34.2798	20727.3092
		Silicon dioxide	7631-86-9	N	0.13239	0.13239	0.13239	Pigments, Inorganic	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	0.3589	217.026927
		Aluminium hydroxide	21645-51-2	N	0.33099	0.33099	0.33099	Pigments, Inorganic	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	0.8974	542.591907
		Zirconium dioxide	1314-23-4	N	0.13239	0.13239	0.13239	Pigments, Inorganic	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	0.3589	217.026927
		Limestone	1317-65-3	N	18.449	18.449	18.449	Pigments, Inorganic	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	50.0180	30243.4457
		Stearic acid	57-11-4	N	0.98136	0.98136	0.98136	Chemicals	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	10.6425	6434.973792
		Respirable quartz	14808-60-7	N	0.78508	0.78508	0.78508	Pigments, Inorganic	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	2.1285	1286.981644
		Nepheline syenite	37244-96-5	N	19.038	19.038	19.038	Pigments, Inorganic	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	51.6149	31208.9934
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	3.8909	3.8909	3.8909	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	42.1953	25513.40948
		Water	7732-18-5	N	0.0038948	0.0038948	0.0038948	Solvents, Water	V			12.61	1.84	85.4	52000	43.00	1.00	2	0.0422	25.53898256
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.26345	0.26345	0.26345	Chemicals	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	2.8570	1727.49434
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.10924353	0.10924353	0.10924353	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	1.1847	716.3316749
		Allyl glycidyl ether	106-92-3	N	0.00026186	0.00026186	0.00026186	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	0.0028	1.717068392
		3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	N	0.21937	0.21937	0.21937	Binders, Monomers	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	2.3790	1438.452964
		Polymer of: triethylenetetramine, polymer of C18-unsatd. fatty acids dimers with tall-oil fatty acids and	CBI	N	6.3859	6.3859	6.3859	Binders	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	17.3131	10468.40587
		Salicylic acid	69-72-7	N	0.1239	0.1239	0.1239	Chemicals	P	N	N	12.61	1.84	85.4	52000	43.00	0.25	2	0.3359	203.10927
		Phenol	108-95-2	Y	0.0002483	0.0002483	0.0002483	Solvents	V	Y	Y	12.61	1.84	85.4	52000	43.00	1.00	2	0.0027	1.62815276
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.19554	0.19554	0.19554	Chemicals	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	2.1206	1282.194888
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	1.108	1.108	1.108	Chemicals	V	N	N	12.61	1.84	85.4	52000	43.00	1.00	2	12.0158	7265.3776
Paint Spray Booths (Transitions)	Hempaprime Multi 500 (Transitions)	Bisphenol A-(epichlorhydrin) epoxy resin MW =< 700	25068-38-6	N	14.279	14.279	14.279	Binders	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	22.4980	3461.2296
		1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	Y	0.0027435	0.0027435	0.0027435	Binders, Monomers	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0173	2.6600976
		4,4'-Isopropylidenediphenol	80-05-7	N	0.014151	0.014151	0.014151	Binders, Monomers	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.0223	3.4302024
		2-Methylstyrene	611-15-4	N	0.0001	0.0001	0.0001	Binders, Monomers	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0006	0.09696
		Phenol	108-95-2	Y	0.024016	0.024016	0.024016	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.1514	23.2859136
		2-Phenylpropene (Methyl Styrene)	98-83-9	N	0.024016	0.024016	0.024016	Binders, Monomers	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.1514	23.2859136
		Methylstyrenated phenol	68512-30-1	N	4.7561	4.7561	4.7561	Binders	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	29.9748	4611.51456
		Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	N	4.7179	4.7179	4.7179	Binders	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	29.7341	4574.47584
		C12-14 alcohols	80206-82-2	N	0.096431	0.096431	0.096431	Chemicals	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	0.6077	93.4994976
		n-Butyl acetate	123-86-4	N	7.1174	7.1174	7.1174	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	44.8567	6901.03104
		Water	7732-18-5	N	0.005115	0.005115	0.005115	Solvents, Water	V			12.12	1.61	86.8	8000	26.00	1.00	2	0.0322	4.959504
		n-Butanol (N-Butyl Alcohol)	71-36-3	N	3.7367	3.7367	3.7367	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	23.5502	3623.10432
		Xylene	1330-20-7	Y	0.0089759	0.0089759	0.0089759	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0566	8.70303264
		Ethylbenzene	100-41-4	Y	0.0019703	0.0019703	0.0019703	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0124	1.91040288
		Alkyd resin	CBI	N	0.24921	0.24921	0.24921	Binders	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.3927	60.408504
		Nonane	111-84-2	N	0.010946	0.010946	0.010946	Chemicals	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0690	10.6132416
		C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)	64742-48-9	N	0.093777	0.093777	0.093777	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.5910	90.9261792
		1,3-bis(12-hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	N	0.55948	0.55948	0.55948	Chemicals	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	3.5261	542.471808
		Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl]	CBI	N	0.23978	0.23978	0.23978	Chemicals	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	1.5112	232.490688
		Titanium dioxide	13463-67-7	N	4.3217	4.3217	4.3217	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	6.8093	1047.58008
		Silicon dioxide	7631-86-9	N	0.045253	0.045253	0.045253	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.0713	10.9693272
		Aluminium hydroxide	21645-51-2	N	0.11313	0.11313	0.11313	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.1782	27.422712
		Zirconium dioxide	1314-23-4	N	0.045253	0.045253	0.045253	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.0713	10.9693272
		Carbon black	1333-86-4	N	0.02085	0.02085	0.02085	Pigments, Organic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.0329	5.05404
		Iron hydroxide oxide	20344-49-4	N	0.047781	0.047781	0.047781	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.0753	11.5821144
		Respirable quartz	14808-60-7	N	1.0401	1.0401	1.0401	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	1.6388	252.12024
		Nepheline syenite	37244-96-5	N	28.731	28.731	28.731	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	45.2686	6964.3944
		Middle molecular epoxy resin MMW 700-1200	25068-38-6	N	3.5132	3.5132	3.5132	Binders	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	5.5354	851.59968
		Heptan-2-one (Methyl Amyl Ketone)	110-43-0	N	1.1711	1.1711	1.1711	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	7.3807	1135.49856
		Polyolefins	CBI	N	0.041353	0.041353	0.041353	Chemicals	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	0.0652	10.0239672
		White spirit (Naphtha Medium Aliphatic)	64742-88-7	N	0.16541	0.16541	0.16541	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	1.0425	160.381536
		3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	N	0.28814	0.28814	0.28814	Chemicals	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	1.8160	279.380544
		Methanol + Methanol (formed by reaction)	67-56-1	Y	0.11947788	0.11947788	0.11947788	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.7530	115.8457524

Equipment	Coating Product Name	Chemical Name	CAS No.	HAP?	Min Wt %	Max Wt %	Avg Wt %	Type	Physical Phase (Vapor or Particulate)	Regulated VOC?	Excepted from Part 212 Review Pursuant to 212-1.4(l)(1)?	Coating Density (lbs/gal)	VOC Content Less Exempt (lbs/gal)	Solids Wt %	Max Yearly Usage (gal)	Max Hourly Usage Per Spray Gun (gal/hr)	Fractional Transfer Loss	No. of Booths	ERP (lbs/hr)	Uncontrolled Yearly Emissions (lbs/yr)
		Allyl glycidyl ether	106-92-3	N	0.0002864	0.0002864	0.0002864	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0018	0.27769344
		Talc (non-asbestiform)	14807-96-6	N	15.003	15.003	15.003	Pigments, Inorganic	P	N	N	12.12	1.61	86.8	8000	26.00	0.25	2	23.6387	3636.7272
		Fatty acids, c18-unsatd., dimers, polymers with triethylenetetramine, reaction products with poly (bisph	68424-41-9	N	7.3801	7.3801	7.3801	Binders	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	46.5123	7155.74496
		3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	N	0.29422	0.29422	0.29422	Binders, Monomers	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	1.8543	285.275712
		bis[(Dimethylamino)methyl]phenol	71074-89-0	N	0.15852	0.15852	0.15852	Chemicals	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	0.9991	153.700992
		2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	N	0.89828	0.89828	0.89828	Chemicals	V	N	N	12.12	1.61	86.8	8000	26.00	1.00	2	5.6613	870.972288
		2-Methoxypropanol	1589-47-5	N	0.0017684	0.0017684	0.0017684	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0111	1.71464064
		1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	N	0.58789	0.58789	0.58789	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	3.7051	570.018144
		2-Methoxypropyl acetate	70657-70-4	N	0.000563	0.000563	0.000563	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	0.0035	0.5458848
		2-Methoxy-1-methylethyl acetate (Methoxypropylacetate)	108-65-6	N	0.18711	0.18711	0.18711	Solvents	V	Y	Y	12.12	1.61	86.8	8000	26.00	1.00	2	1.1792	181.421856
Paint Spray Booth	Methyl Ethyl	Methyl Ethyl Ketone	78-93-3	N	100	100	100	Solvents	V	Y	Y	6.71	6.71	0.0	6000	1.03	1.00	2	13.7953	40282.2
Metal Spray Booth	Zinc Wire	Zinc	7440-66-6	N	99.9	99.9	99.9	Pigments, Inorganic	P	N	N	Zinc Wire	0	100	3504000 lbs	400.0 lbs/hr	0.42	n/a	167.832	1470208
		Zinc oxide	1314-13-2	N	0	0	0	Pigments, Inorganic	P	N	N	Zinc Wire	0	100	3504000 lbs	400.0 lbs/hr	0.42	n/a	0	0
		Lead	7439-92-1	Y	0.0014	0.0014	0.0014	Pigments, Inorganic	P	N	N	Zinc Wire	0	100	3504000 lbs	400.0 lbs/hr	0.42	n/a	0.002352	20.60
		Cadmium	7440-43-9	Y	0.0001	0.0001	0.0001	Pigments, Inorganic	P	N	N	Zinc Wire	0	100	3504000 lbs	400.0 lbs/hr	0.42	n/a	0.000168	1.472
Tower Blast (BLDG C)	Steel Shot	Manganese	7439-96-5	Y	0	1.2	0.6	Abrasives	P	N	N							n/a	0.210	1839.6
		Chromium	7440-47-3	Y	0	0.1	0.05	Abrasives	P	N	N							n/a	0.0175	153.3
		Nickel	7440-02-0	Y	0	0.1	0.05	Abrasives	P	N	N							n/a	0.0175	153.3
		Copper	7440-50-8	N	0	0.1	0.05	Abrasives	P	N	N							n/a	0.0175	153.3
Plate Blast (BLDG A)	Steel Shot	Manganese	7439-96-5	Y	0	1.2	0.6	Abrasives	P	N	N							n/a	0.360	3153.6
		Chromium	7440-47-3	Y	0	0.1	0.05	Abrasives	P	N	N							n/a	0.0300	262.8000
		Nickel	7440-02-0	Y	0	0.1	0.05	Abrasives	P	N	N							n/a	0.0300	262.8000
		Copper	7440-50-8	N	0	0.1	0.05	Abrasives	P	N	N							n/a	0.0300	262.8000

Table Notes:

= Hazardous Air Pollutant (HAP)

V = vapor phase; P = particulate (solid) phase

(1) From DAR-1 AGC/SGC Tables: H = High, M = Moderate, L = Low. In accordance with DAR-1 procedures, when assigning an initial Environmental Rating (ER) for each contaminant, an ER of "A" should be assigned to high toxicity contaminants; an ER of "B" should be assigned to moderate toxicity contaminants; an ER of "C" should be assigned to low toxicity contaminants; and, an ER of "D" should only be initially assigned to contamintants identified as simple asphyxiants.

(2) Per DAR-1 procedures, those air contaminants without a toxicity classification should be assigned a moderate (M) toxicity classification. Thus, where a toxicity value has not been assigned in the AGC/SGC Tables, a moderate toxicity rating, denoted as "(M)", is shown.

(3) Per DAR-1 procedures, air contaminants that currently do not have an AGC assigned to the mshould be evaulated based upon a de minimus concentration of 0.1 µg/m^3 predicted at the fence line. The 0.1 µg/m^3 concentration is to be used as a first-time conservative approach to evaluate the dispersion of the air contaminant. (If this occurs, the permit writer should forward the air contaminant's CAS registry number to the Air Toxics Section (ATS), within DAR, for the development of an AGC).

= Thinner conservatively included in PTE calculations even though thinner is already accounted for in "as-mixed" paint coating formulations, per coating air quality data sheets.

Fume Emissions From Plasma Arc Cutting, Welding and Grinding Activities

Emission Unit ID: U-MFR_A, U-MFR_B
Emission Source/Control: MACHINING_A-B, WELD_A-B, GRIND_A-B, FABRIC_A-B
Description: Fume-related emissions from machining (rolling, plasma arc cutting, beveling), welding, and grinding (belt sanding) of steel plates and flanges. Fume-related emissions from rolling, beveling are assumed to be negligible.
Location: Building A, Building B
Building Ventilation System Fabric Filter Control: 99%

Plasma Arc Cutting

PM/PM_{10} Emission Factor [(1)]: 5.30 g/min
Annual Operating Hours: 8,760 hrs/yr

Welding Wire Usage and Emission Factors

Type of Weld Wire	Maximum Wire Usage (lbs/yr) [(2)]	PM_{10} (lb/1,000 lb electrode)	HAP Emission Factors [(3)] (lb HAP/10,000 lb electrode consumed)			
			Chromium	Cobalt	Manganese	Nickel
EM12K (SAW)						
ESAB Spoolarc 81 (SA81) WIRE SUBARC EM12K	2,792,700	0.05	0	0	1.43E-03	0
ESAB OK Flux 10.72 for SAW, EM12K	3,490,950	0.05	0	0	2.29E-02	0
E70S(GMAW)						
NS-115 ER70S-6	62,700	5.2	0.01	0.01	3.18	0.01
E71T(FCAW)						
Bohler HL 51 L-MC	209,250	12.2	0.02	0.01	6.62	0.04
E71T-12M-JH4	116,400	12.2	0.02	0.01	6.62	0.04

Annual Operating Hours: 8,760 hrs/yr

Grinding

PM/PM_{10} Emission Factor [(1)]: 0.39 g/min
Annual Operating Hours: 8,760 hrs/yr

Machining (Plasma Cutting) and Grinding Activities

Steel Plate Alloy Composition [(4)]:

	Cas No.	Min	Max	Avg
Chromium	7440-47-3	0.01%	5.5%	2.76%
Copper	7440-50-8	--	<1.75%	<1.75%
Manganese	7439-96-5	0.00%	2%	1.00%
Nickel	7440-02-0	0.01%	3.65%	1.83%

Grinding Activities

Sanding Belt Composition:

	Cas No.	Min	Max	Avg
Aluminum Oxide (abrasives grain)	1344-28-1	20%	45%	32.5%
Cured Phenolic Resin (bonding)	9003-35-4	5%	15%	10.0%
Calcium Carbonate (filler)	16389-88-1	2%	7%	4.5%
Cryolite (filler)	13775-53-6	2%	12%	7.0%
Potassium Floroborate (filler)	14075-53-7	0%	12%	6.0%

Fume Emissions From Plasma Arc Cutting, Welding and Grinding Activities

Building Ventilation System Exhaust	# of Vents	Average Fan Rating Per Vent (ft^3/min)	Total Exhaust Volume (ft^3/min)	Calculated Exit Grain Loading (gr/ft^3) (6)
Building A	6	13,050	78,300	0.000025
Building B	6	17,800	106,800	0.000015

Potential Fume Emissions from Plasma Arc Cutting After Ventilation System Control (Per Building)

Pollutant Name	Pollutant CAS No.	Emission Rate Before Control (lb/hr)	Emission Rate After Control (lb/hr)	Emission Rate Per Vent (lb/hr)	Annual Emissions (tpy)
PM_{10} (7)	NY075-00-5	0.701	7.01E-03	1.17E-03	3.07E-02
$PM_{2.5}$ (7)	NY750-02-5	0.701	7.01E-03	1.17E-03	3.07E-02
Chromium	7440-47-3	3.86E-02	3.86E-04	6.43E-05	8.46E-04
Manganese	7439-96-5	1.40E-02	1.40E-04	2.34E-05	3.07E-04
Nickel	7440-02-0	2.56E-02	2.56E-04	4.26E-05	5.62E-04
Copper	7440-50-8	1.23E-02	1.23E-04	2.04E-05	5.37E-04

Potential Fume Emissions from Welding After Ventilation System Control (Per Building)

Pollutant Name	Pollutant CAS No.	Emission Rate Before Control (lb/hr)	Emission Rate After Control (lb/hr)	Emission Rate Per Vent (lb/hr)	Annual Emissions (tpy)
PM_{10} (7)	NY075-00-5	0.527	5.27E-03	8.78E-04	2.31E-02
$PM_{2.5}$ (7)	NY750-02-5	0.527	5.27E-03	8.78E-04	2.31E-02
Chromium	7440-47-3	8.15E-05	8.15E-07	1.36E-07	3.57E-06
Cobalt	7440-48-4	4.43E-05	4.43E-07	7.39E-08	1.94E-06
Manganese	7439-96-5	2.78E-02	2.78E-04	4.64E-05	1.22E-03
Nickel	7440-02-0	1.56E-04	1.56E-06	2.60E-07	6.83E-06

Potential Fume Emissions from Grinding After Ventilation System Control (Per Building)

Pollutant Name	Pollutant CAS No.	Emission Rate Before Control (lb/hr)	Emission Rate After Control (lb/hr)	Emission Rate Per Vent (lb/hr)	Annual Emissions (tpy)
PM_{10} (7)	NY075-00-5	5.16E-02	5.16E-04	8.60E-05	2.26E-03
$PM_{2.5}$ (7)	NY750-02-5	5.16E-02	5.16E-04	8.60E-05	2.26E-03
Chromium	7440-47-3	2.84E-03	2.84E-05	4.73E-06	6.23E-05
Manganese	7439-96-5	1.03E-03	1.03E-05	1.72E-06	2.26E-05
Nickel	7440-02-0	1.88E-03	1.88E-05	3.14E-06	4.14E-05
Copper	7440-50-8	9.03E-04	9.03E-06	1.50E-06	3.95E-05
Aluminum Oxide	1344-28-1	2.32E-02	2.32E-04	3.87E-05	7.34E-04
Cured Phenolic Resin	9003-35-4	7.74E-03	7.74E-05	1.29E-05	2.26E-04
Calcium Carbonate	16389-88-1	3.61E-03	3.61E-05	6.02E-06	1.02E-04
Cryolite	13775-53-6	6.19E-03	6.19E-05	1.03E-05	1.58E-04
Potassium Floroborate	14075-53-7	6.19E-03	6.19E-05	1.03E-05	1.36E-04

Notes:

(1) Emission factors for plasma arc cutting and grinding from Environment Canada's 2021 Arc Welding, Cutting and Spraying

Calculator. See link for more information:
https://www.canada.ca/en/environment-climate-change/services/national-pollutant-release-inventory/report/tools-calculating-emissions/arc-welding-cutting-spraying-calculator.html

(2) Annual quantity used based on maximum annual tower and transistion piece production capacity.

(3) Emission factors obtained from AP-42 Table 12.19-2, except for EM12K (SAW), for which there is no data in AP-42. HAP emission factor data for EM12K (SAW) was taken from the San Diego Air Pollution Control welding emission factor Table A10.

(4) Steel plate chemical composition based upon data provided in steel plate SDS. Chemical composition for steel flanges assumed to be equivalent.

(5) Sanding belt chemical composition based upon data provided in sanding belt SDS. Does not include "backing" component.

(6) Calculated exit grain loading includes fume emissions from cutting, welding and grinding as well as particulate emissions from the combustion of oxyfuel.

(7) Assume PM = PM_{10} = $PM_{2.5}$.

Potential Emissions From Oxyfuel Combustion (Process Equipment at Building A) [1]

Emission Unit ID:	U-MFR_A	
Emission Source:	MACHINING_A, WELD_A, GRIND_A	
Description:	Oxyfuel combustion-related emissions from machining (preheat torches, plasma arc cutting, beveling) and welding of steel plates and flanges. Emissions from the combustion of oxyfuel assumed to be equivalent to emissions from external combustion sources firing natural gas.	
Location:	Building A	
Maximum Combined Heat Input:	51,386,685	Btu/hr
	51.4	MMBtu/hr
Fuel Type:	Natural Gas	
HHV Natural Gas:	1,050	Btu/scf
Max Hourly Fuel Consumption:	48,940	scf/hr
Annual Operation:	8,760	hrs/yr
Annual Fuel Cap:	429	MMscf/yr

Pollutant Name	Pollutant CAS No.	AP-42 Factors (lb/MMscf) [3]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	100	4.89	9.52E-02	21.4
CO	630-08-0	84	4.11	8.00E-02	18.0
PM_{10} [4]	NY075-00-5	7.6	3.72E-03	7.24E-05	1.63E-02
$PM_{2.5}$ [4]	NY750-02-5	7.6	3.72E-03	7.24E-05	1.63E-02
SO_2	7446-09-5	0.6	2.94E-02	5.71E-04	0.129
VOC	NY998-00-0	5.5	0.269	5.24E-03	1.18
Pb	7439-92-1	0.0005	2.45E-05	4.76E-07	1.07E-04
CO_2	124-38-9	120,000	5,873	114	25,723
N_2O	10024-97-2	0.64	3.13E-02	6.10E-04	0.137
CH_4	74-82-8	2.30	0.113	2.19E-03	0.493
CO_2e [5]	NY750-00-0	120,247	5,885	115	25,776
NH_3 [6]	7664-41-7	3.2	0.157	3.05E-03	0.686
Total HAPs	NY100-00-0	1.89	9.24E-02	1.80E-03	0.405
2-Methylnaphthalene	91-57-6	2.4E-05	1.17E-06	2.29E-08	5.14E-06
3-Methylchloranthrene	56-49-5	1.8E-06	8.81E-08	1.71E-09	3.86E-07
7,12-Dimethylbenz(a)anthracene	57-97-6	1.6E-05	7.83E-07	1.52E-08	3.43E-06
Acenaphthene	83-32-9	1.8E-06	8.81E-08	1.71E-09	3.86E-07
Acenaphthylene	203-96-8	1.8E-06	8.81E-08	1.71E-09	3.86E-07
Anthracene	120-12-7	2.4E-06	1.17E-07	2.29E-09	5.14E-07
Benz(a)anthracene	56-55-3	1.8E-06	8.81E-08	1.71E-09	3.86E-07
Benzene	71-43-2	2.1E-03	1.03E-04	2.00E-06	4.50E-04
Benzo(a)pyrene	50-32-8	1.2E-06	5.87E-08	1.14E-09	2.57E-07
Benzo(b)fluoranthene	205-99-2	1.8E-06	8.81E-08	1.71E-09	3.86E-07
Benzo(g,h,i)perylene	191-24-2	1.2E-06	5.87E-08	1.14E-09	2.57E-07

Potential Emissions From Oxyfuel Combustion (Process Equipment at Building A) [1]					
Benzo(k)fluoranthene	205-82-3	1.8E-06	8.81E-08	1.71E-09	3.86E-07
Chrysene	218-01-9	1.8E-06	8.81E-08	1.71E-09	3.86E-07
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	5.87E-08	1.14E-09	2.57E-07
Dichlorobenzene	25321-22-6	1.2E-03	5.87E-05	1.14E-06	2.57E-04
Fluoranthene	206-44-0	3.0E-06	1.47E-07	2.86E-09	6.43E-07
Fluorene	86-73-7	2.8E-06	1.37E-07	2.67E-09	6.00E-07
Formaldehyde	50-00-0	7.5E-02	3.67E-03	7.14E-05	1.61E-02
Hexane	110-54-3	1.80	8.81E-02	1.71E-03	0.386
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	8.81E-08	1.71E-09	3.86E-07
Naphthalene	91-20-3	6.1E-04	2.99E-05	5.81E-07	1.31E-04
Phenanathrene	85-01-8	1.7E-05	8.32E-07	1.62E-08	3.64E-06
Pyrene	129-00-0	5.0E-06	2.45E-07	4.76E-09	1.07E-06
Toluene	108-88-3	3.4E-03	1.66E-04	3.24E-06	7.29E-04
Arsenic	7440-38-2	2.0E-04	9.79E-06	1.90E-07	4.29E-05
Beryllium	7440-41-7	1.2E-05	5.87E-07	1.14E-08	2.57E-06
Cadmium	7440-43-9	1.1E-03	5.38E-05	1.05E-06	2.36E-04
Chromium	7440-47-3	1.4E-03	6.85E-05	1.33E-06	3.00E-04
Cobalt	7440-48-4	8.4E-05	4.11E-06	8.00E-08	1.80E-05
Manganese	7439-96-5	3.8E-04	1.86E-05	3.62E-07	8.15E-05
Mercury	7439-97-6	2.6E-04	1.27E-05	2.48E-07	5.57E-05
Nickel	7440-02-0	2.1E-03	1.03E-04	2.00E-06	4.50E-04
Selenium	7782-49-2	2.4E-05	1.17E-06	2.29E-08	5.14E-06

Notes:

(1) Includes combustion-related emissions from oxyfuel-fired welding, preheat torches and plasma arc cutting equipment.

(2) All of oxyfuel-fired cutting and welding equipment can operate at the same time. There is no production sequence where certain equipment is turned off while another starts operating. However, the equipment will not consume natural gas at full capacity (full load) 100% of the time while operating. Therefore, actual average daily natural gas consumption will be less than the maximum potential (hourly peak). After tweaking the duty cycles to simulate peak production, estimates for peak natural gas usage are approximately 1.55 times higher than the average consumption for equipment located in Building A. PTE estimates (tabulated above) are conservatively based on peak hourly natural gas usage and 8,760 hours per year of operation.

(3) AP-42 factors from Tables 1.4-2 & Table 1.4-3, unless otherwise noted.

(4) Potential hourly and annual emissions for PM_{10} and $PM_{2.5}$ after control based on Building A Ventilation System fabric filter control (minimum 99% removal efficiency).

(5) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

(6) Emission factor for Ammonia was taken from EPA's FIRE database for SCC code 10100602 (Natural Gas Boilers <100 MMBtu, uncontrolled).

Potential Emissions From Plasma Cutting, Preheat Torches, Rolling, Welding and Grinding Activities (Building A)

Emission Unit ID:	U-MFR_A
Emission Source/Control:	MACHINING_A, WELD_A, GRIND_A, FABRIC_A
Description:	Combined oxyfuel combustion- and fume-related emissions from machining (preheat torches, plasma arc cutting, beveling), welding and grinding (belt sanding) of steel plates and flanges. Potential emissions discharge outdoors via building ventilation system(s) equipped with fabric filters.
Location:	Building A
Number of Exhaust Points:	6
Annual Operating Hours:	8,760 hrs/yr

Pollutant Name	Pollutant CAS No.	Emission Rate (lb/hr)	Emission Rate Exhaust Point (lb/hr)	Annual Emissions (tpy)	Pollutant Emission Source Description
NO_X	NY210-00-0	4.89	0.816	21.4	Oxyfuel Combustion
CO	630-08-0	4.11	0.685	18.0	Oxyfuel Combustion
PM_{10}	NY075-00-5	1.65E-02	2.75E-03	7.23E-02	Oxyfuel Combustion, Machining, Welding, Grinding
$PM_{2.5}$	NY750-02-5	1.65E-02	2.75E-03	7.23E-02	Oxyfuel Combustion, Machining, Welding, Grinding
SO_2	7446-09-5	2.94E-02	4.89E-03	0.129	Oxyfuel Combustion
VOC	NY998-00-0	0.269	4.49E-02	1.18	Oxyfuel Combustion
Pb	7439-92-1	2.45E-05	4.08E-06	1.07E-04	Oxyfuel Combustion
CO_2	124-38-9	5,873	979	25,723	Oxyfuel Combustion
N_2O	10024-97-2	3.13E-02	5.22E-03	0.137	Oxyfuel Combustion
CH_4	74-82-8	0.113	1.88E-02	0.493	Oxyfuel Combustion
CO_2e (3)	NY750-00-0	5,885	981	25,776	Oxyfuel Combustion
NH_3 (4)	7664-41-7	0.157	2.61E-02	0.686	Oxyfuel Combustion
Total HAPs	NY100-00-0	9.35E-02	1.56E-02	4.10E-01	Oxyfuel Combustion, Machining, Welding, Grinding
2-Methylnaphthalene	91-57-6	1.17E-06	1.96E-07	5.14E-06	Oxyfuel Combustion
3-Methylchloranthrene	56-49-5	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
7,12-Dimethylbenz(a)anthracene	57-97-6	7.83E-07	1.31E-07	3.43E-06	Oxyfuel Combustion
Acenaphthene	83-32-9	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
Acenaphthylene	203-96-8	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
Anthracene	120-12-7	1.17E-07	1.96E-08	5.14E-07	Oxyfuel Combustion
Benz(a)anthracene	56-55-3	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
Benzene	71-43-2	1.03E-04	1.71E-05	4.50E-04	Oxyfuel Combustion
Benzo(a)pyrene	50-32-8	5.87E-08	9.79E-09	2.57E-07	Oxyfuel Combustion

Potential Emissions From Plasma Cutting, Preheat Torches, Rolling, Welding and Grinding Activities (Building A)

Emission Unit ID:	U-MFR_A
Emission Source/Control:	MACHINING_A, WELD_A, GRIND_A, FABRIC_A
Description:	Combined oxyfuel combustion- and fume-related emissions from machining (preheat torches, plasma arc cutting, beveling), welding and grinding (belt sanding) of steel plates and flanges. Potential emissions discharge outdoors via building ventilation system(s) equipped with fabric filters.
Location:	Building A
Number of Exhaust Points:	6
Annual Operating Hours:	8,760 hrs/yr

Pollutant Name	Pollutant CAS No.	Emission Rate (lb/hr)	Emission Rate Exhaust Point (lb/hr)	Annual Emissions (tpy)	Pollutant Emission Source Description
Benzo(b)fluoranthene	205-99-2	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
Benzo(g,h,i)perylene	191-24-2	5.87E-08	9.79E-09	2.57E-07	Oxyfuel Combustion
Benzo(k)fluoranthene	205-82-3	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
Chrysene	218-01-9	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
Dibenzo(a,h)anthracene	53-70-3	5.87E-08	9.79E-09	2.57E-07	Oxyfuel Combustion
Dichlorobenzene	25321-22-6	5.87E-05	9.79E-06	2.57E-04	Oxyfuel Combustion
Fluoranthene	206-44-0	1.47E-07	2.45E-08	6.43E-07	Oxyfuel Combustion
Fluorene	86-73-7	1.37E-07	2.28E-08	6.00E-07	Oxyfuel Combustion
Formaldehyde	50-00-0	3.67E-03	6.12E-04	1.61E-02	Oxyfuel Combustion
Hexane	110-54-3	8.81E-02	1.47E-02	3.86E-01	Oxyfuel Combustion
Indeno(1,2,3-cd)pyrene	193-39-5	8.81E-08	1.47E-08	3.86E-07	Oxyfuel Combustion
Naphthalene	91-20-3	2.99E-05	4.98E-06	1.31E-04	Oxyfuel Combustion
Phenanathrene	85-01-8	8.32E-07	1.39E-07	3.64E-06	Oxyfuel Combustion
Pyrene	129-00-0	2.45E-07	4.08E-08	1.07E-06	Oxyfuel Combustion
Toluene	108-88-3	1.66E-04	2.77E-05	7.29E-04	Oxyfuel Combustion
Arsenic	7440-38-2	9.79E-06	1.63E-06	4.29E-05	Oxyfuel Combustion
Beryllium	7440-41-7	5.87E-07	9.79E-08	2.57E-06	Oxyfuel Combustion
Cadmium	7440-43-9	5.38E-05	8.97E-06	2.36E-04	Oxyfuel Combustion
Chromium	7440-47-3	4.83E-04	8.05E-05	2.12E-03	Oxyfuel Combustion, Machining, Welding, Grinding
Cobalt	7440-48-4	4.55E-06	7.59E-07	1.99E-05	Oxyfuel Combustion, Welding
Manganese	7439-96-5	4.48E-04	7.46E-05	1.96E-03	Oxyfuel Combustion, Machining, Welding, Grinding
Mercury	7439-97-6	1.27E-05	2.12E-06	5.57E-05	Oxyfuel Combustion
Nickel	7440-02-0	3.79E-04	6.32E-05	1.66E-03	Oxyfuel Combustion, Machining, Welding, Grinding

Potential Emissions From Plasma Cutting, Preheat Torches, Rolling, Welding and Grinding Activities (Building A)

Emission Unit ID:	U-MFR_A
Emission Source/Control:	MACHINING_A, WELD_A, GRIND_A, FABRIC_A
Description:	Combined oxyfuel combustion- and fume-related emissions from machining (preheat torches, plasma arc cutting, beveling), welding and grinding (belt sanding) of steel plates and flanges. Potential emissions discharge outdoors via building ventilation system(s) equipped with fabric filters.
Location:	Building A
Number of Exhaust Points:	6
Annual Operating Hours:	8,760 hrs/yr

Pollutant Name	Pollutant CAS No.	Emission Rate (lb/hr)	Emission Rate Exhaust Point (lb/hr)	Annual Emissions (tpy)	Pollutant Emission Source Description
Selenium	7782-49-2	1.17E-06	1.96E-07	5.14E-06	Oxyfuel Combustion
Other Non-Criteria Air Contaminants					
Copper	7440-50-8	1.32E-04	2.20E-05	5.77E-04	Machining, Grinding
Aluminum Oxide	1344-28-1	2.32E-04	3.87E-05	1.02E-03	Grinding
Cured Phenolic Resin	9003-35-4	7.74E-05	1.29E-05	3.39E-04	Grinding
Calcium Carbonate	16389-88-1	3.61E-05	6.02E-06	1.58E-04	Grinding
Cryolite	13775-53-6	6.19E-05	1.03E-05	2.71E-04	Grinding
Potassium Floroborate	14075-53-7	6.19E-05	1.03E-05	2.71E-04	Grinding

Potential Emissions From Oxyfuel Combustion (Process Equipment at Building B) [1]

Emission Unit ID:	U-MFR_B	
Emission Source:	MACHINING_B, WELD_B, GRIND_B	
Description:	Oxyfuel combustion-related emissions from machining (preheat torches, plasma arc cutting, beveling) and welding of steel plates and flanges. Emissions from the combustion of oxyfuel assumed to be equivalent to emissions from external combustion sources firing natural gas.	
Location:	Building B	
Maximum Combined Heat Input:	15,615,600	Btu/hr
	15.6	MMBtu/hr
Fuel Type:	Natural Gas	
HHV Natural Gas:	1,050	Btu/scf
Max Hourly Fuel Consumption [2]:	14,872	scf/hr
Annual Operation:	8,760	hrs/yr
Annual Fuel Cap [2]:	130.3	MMscf/yr

Pollutant Name	Pollutant CAS No.	AP-42 Factors (lb/MMscf) [3]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	100	1.49	9.52E-02	6.51
CO	630-08-0	84	1.25	8.00E-02	5.47
PM_{10} [4]	NY075-00-5	7.6	1.13E-03	7.24E-05	4.95E-03
$PM_{2.5}$ [4]	NY750-02-5	7.6	1.13E-03	7.24E-05	4.95E-03
SO_2	7446-09-5	0.6	8.92E-03	5.71E-04	3.91E-02
VOC	NY998-00-0	5.5	8.18E-02	5.24E-03	0.358
Pb	7439-92-1	0.0005	7.44E-06	4.76E-07	3.26E-05
CO_2	124-38-9	120,000	1,785	114	7,817
N_2O	10024-97-2	0.64	9.52E-03	6.10E-04	4.17E-02
CH_4	74-82-8	2.30	3.42E-02	2.19E-03	0.150
CO_2e [5]	NY750-00-0	120,247	1,788	115	7,833
NH_3 [6]	7664-41-7	3.2	4.76E-02	3.05E-03	0.208
Total HAPs	NY100-00-0	1.89	2.81E-02	1.80E-03	0.123
2-Methylnaphthalene	91-57-6	2.4E-05	3.57E-07	2.29E-08	1.56E-06
3-Methylchloranthrene	56-49-5	1.8E-06	2.68E-08	1.71E-09	1.17E-07
7,12-Dimethylbenz(a)anthracene	57-97-6	1.6E-05	2.38E-07	1.52E-08	1.04E-06
Acenaphthene	83-32-9	1.8E-06	2.68E-08	1.71E-09	1.17E-07
Acenaphthylene	203-96-8	1.8E-06	2.68E-08	1.71E-09	1.17E-07
Anthracene	120-12-7	2.4E-06	3.57E-08	2.29E-09	1.56E-07
Benz(a)anthracene	56-55-3	1.8E-06	2.68E-08	1.71E-09	1.17E-07
Benzene	71-43-2	2.1E-03	3.12E-05	2.00E-06	1.37E-04
Benzo(a)pyrene	50-32-8	1.2E-06	1.78E-08	1.14E-09	7.82E-08
Benzo(b)fluoranthene	205-99-2	1.8E-06	2.68E-08	1.71E-09	1.17E-07
Benzo(g,h,i)perylene	191-24-2	1.2E-06	1.78E-08	1.14E-09	7.82E-08

Potential Emissions From Oxyfuel Combustion (Process Equipment at Building B) [1]					
Benzo(k)fluoranthene	205-82-3	1.8E-06	2.68E-08	1.71E-09	1.17E-07
Chrysene	218-01-9	1.8E-06	2.68E-08	1.71E-09	1.17E-07
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	1.78E-08	1.14E-09	7.82E-08
Dichlorobenzene	25321-22-6	1.2E-03	1.78E-05	1.14E-06	7.82E-05
Fluoranthene	206-44-0	3.0E-06	4.46E-08	2.86E-09	1.95E-07
Fluorene	86-73-7	2.8E-06	4.16E-08	2.67E-09	1.82E-07
Formaldehyde	50-00-0	7.5E-02	1.12E-03	7.14E-05	4.89E-03
Hexane	110-54-3	1.80	2.68E-02	1.71E-03	1.17E-01
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	2.68E-08	1.71E-09	1.17E-07
Naphthalene	91-20-3	6.1E-04	9.07E-06	5.81E-07	3.97E-05
Phenanathrene	85-01-8	1.7E-05	2.53E-07	1.62E-08	1.11E-06
Pyrene	129-00-0	5.0E-06	7.44E-08	4.76E-09	3.26E-07
Toluene	108-88-3	3.4E-03	5.06E-05	3.24E-06	2.21E-04
Arsenic	7440-38-2	2.0E-04	2.97E-06	1.90E-07	1.30E-05
Beryllium	7440-41-7	1.2E-05	1.78E-07	1.14E-08	7.82E-07
Cadmium	7440-43-9	1.1E-03	1.64E-05	1.05E-06	7.17E-05
Chromium	7440-47-3	1.4E-03	2.08E-05	1.33E-06	9.12E-05
Cobalt	7440-48-4	8.4E-05	1.25E-06	8.00E-08	5.47E-06
Manganese	7439-96-5	3.8E-04	5.65E-06	3.62E-07	2.48E-05
Mercury	7439-97-6	2.6E-04	3.87E-06	2.48E-07	1.69E-05
Nickel	7440-02-0	2.1E-03	3.12E-05	2.00E-06	1.37E-04
Selenium	7782-49-2	2.4E-05	3.57E-07	2.29E-08	1.56E-06

Notes:

(1) Includes combustion-related emissions from oxyfuel-fired welding, preheat torches and plasma arc cutting equipment.

(2) All of oxyfuel-fired cutting and welding equipment can operate at the same time. There is no production sequence where certain equipment is turned off while another starts operating. However, the equipment will not consume natural gas at full capacity (full load) 100% of the time while operating. Therefore, actual average daily natural gas consumption will be less than the maximum potential (hourly peak). After tweaking the duty cycles to simulate peak production, estimates for peak natural gas usage are approximately 1.43 times higher than the average consumption for equipment located in Building B. PTE estimates (tabulated above) are conservatively based on peak hourly natural gas usage and 8,760 hours per year of operation.

(3) AP-42 factors from Tables 1.4-2 & Table 1.4-3, unless otherwise noted.

(4) Potential hourly and annual emissions for PM_{10} and $PM_{2.5}$ after control based on Building B Ventilation System fabric filter control (minimum 99% removal efficiency).

(5) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

(6) Emission factor for Ammonia was taken from EPA's FIRE database for SCC code 10100602 (Natural Gas Boilers <100 MMBtu, uncontrolled).

Potential Emissions From Plasma Cutting, Preheat Torches, Rolling, Welding and Grinding Activities (Building B)

Emission Unit ID:	U-MFR_B
Emission Source:	MACHINING_B, WELD_B, GRIND_B, FABRIC_B
Description:	Combined oxyfuel combustion- and fume-related emissions from machining (preheat torches, plasma arc cutting, beveling), welding and grinding (belt sanding) of steel plates and flanges. Potential emissions discharge outdoors via building ventilation system(s) equipped with fabric filters.
Location:	Building B
Number of Exhaust Points:	6
Annual Operating Hours:	8,760 hrs/yr

Pollutant Name	Pollutant CAS No.	Emission Rate (lb/hr)	Emission Rate Exhaust Point (lb/hr)	Annual Emissions (tpy)	Pollutant Emission Source Description
NO_X	NY210-00-0	1.49	0.248	6.51	Oxyfuel Combustion
CO	630-08-0	1.25	0.208	5.47	Oxyfuel Combustion
PM_{10}	NY075-00-5	1.39E-02	2.32E-03	6.10E-02	Oxyfuel Combustion, Machining, Welding, Grinding
$PM_{2.5}$	NY750-02-5	1.39E-02	2.32E-03	6.10E-02	Oxyfuel Combustion, Machining, Welding, Grinding
SO_2	7446-09-5	8.92E-03	1.49E-03	3.91E-02	Oxyfuel Combustion
VOC	NY998-00-0	8.18E-02	1.36E-02	0.358	Oxyfuel Combustion
Pb	7439-92-1	7.44E-06	1.24E-06	3.26E-05	Oxyfuel Combustion
CO_2	124-38-9	1,785	297	7,817	Oxyfuel Combustion
N_2O	10024-97-2	9.52E-03	1.59E-03	4.17E-02	Oxyfuel Combustion
CH_4	74-82-8	3.42E-02	5.70E-03	0.150	Oxyfuel Combustion
CO_2e [3]	NY750-00-0	1,788	298	7,833	Oxyfuel Combustion
NH_3 [4]	7664-41-7	4.76E-02	7.93E-03	0.208	Oxyfuel Combustion
Total HAPs	NY100-00-0	2.92E-02	4.87E-03	0.128	Oxyfuel Combustion, Machining, Welding, Grinding
2-Methylnaphthalene	91-57-6	3.57E-07	5.95E-08	1.56E-06	Oxyfuel Combustion
3-Methylchloranthrene	56-49-5	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
7,12-Dimethylbenz(a)anthracene	57-97-6	2.38E-07	3.97E-08	1.04E-06	Oxyfuel Combustion
Acenaphthene	83-32-9	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
Acenaphthylene	203-96-8	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
Anthracene	120-12-7	3.57E-08	5.95E-09	1.56E-07	Oxyfuel Combustion
Benz(a)anthracene	56-55-3	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
Benzene	71-43-2	3.12E-05	5.21E-06	1.37E-04	Oxyfuel Combustion
Benzo(a)pyrene	50-32-8	1.78E-08	2.97E-09	7.82E-08	Oxyfuel Combustion

Potential Emissions From Plasma Cutting, Preheat Torches, Rolling, Welding and Grinding Activities (Building B)

Emission Unit ID:	U-MFR_B
Emission Source:	MACHINING_B, WELD_B, GRIND_B, FABRIC_B
Description:	Combined oxyfuel combustion- and fume-related emissions from machining (preheat torches, plasma arc cutting, beveling), welding and grinding (belt sanding) of steel plates and flanges. Potential emissions discharge outdoors via building ventilation system(s) equipped with fabric filters.
Location:	Building B
Number of Exhaust Points:	6
Annual Operating Hours:	8,760 hrs/yr

Pollutant Name	Pollutant CAS No.	Emission Rate (lb/hr)	Emission Rate Exhaust Point (lb/hr)	Annual Emissions (tpy)	Pollutant Emission Source Description
Benzo(b)fluoranthene	205-99-2	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
Benzo(g,h,i)perylene	191-24-2	1.78E-08	2.97E-09	7.82E-08	Oxyfuel Combustion
Benzo(k)fluoranthene	205-82-3	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
Chrysene	218-01-9	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
Dibenzo(a,h)anthracene	53-70-3	1.78E-08	2.97E-09	7.82E-08	Oxyfuel Combustion
Dichlorobenzene	25321-22-6	1.78E-05	2.97E-06	7.82E-05	Oxyfuel Combustion
Fluoranthene	206-44-0	4.46E-08	7.44E-09	1.95E-07	Oxyfuel Combustion
Fluorene	86-73-7	4.16E-08	6.94E-09	1.82E-07	Oxyfuel Combustion
Formaldehyde	50-00-0	1.12E-03	1.86E-04	4.89E-03	Oxyfuel Combustion
Hexane	110-54-3	2.68E-02	4.46E-03	1.17E-01	Oxyfuel Combustion
Indeno(1,2,3-cd)pyrene	193-39-5	2.68E-08	4.46E-09	1.17E-07	Oxyfuel Combustion
Naphthalene	91-20-3	9.07E-06	1.51E-06	3.97E-05	Oxyfuel Combustion
Phenanathrene	85-01-8	2.53E-07	4.21E-08	1.11E-06	Oxyfuel Combustion
Pyrene	129-00-0	7.44E-08	1.24E-08	3.26E-07	Oxyfuel Combustion
Toluene	108-88-3	5.06E-05	8.43E-06	2.21E-04	Oxyfuel Combustion
Arsenic	7440-38-2	2.97E-06	4.96E-07	1.30E-05	Oxyfuel Combustion
Beryllium	7440-41-7	1.78E-07	2.97E-08	7.82E-07	Oxyfuel Combustion
Cadmium	7440-43-9	1.64E-05	2.73E-06	7.17E-05	Oxyfuel Combustion
Chromium	7440-47-3	4.36E-04	7.26E-05	1.91E-03	Oxyfuel Combustion, Machining, Welding, Grinding
Cobalt	7440-48-4	1.69E-06	2.82E-07	7.41E-06	Oxyfuel Combustion, Welding
Manganese	7439-96-5	4.35E-04	7.24E-05	1.90E-03	Oxyfuel Combustion, Machining, Welding, Grinding
Mercury	7439-97-6	3.87E-06	6.44E-07	1.69E-05	Oxyfuel Combustion
Nickel	7440-02-0	3.08E-04	5.13E-05	1.35E-03	Oxyfuel Combustion, Machining, Welding, Grinding

Potential Emissions From Plasma Cutting, Preheat Torches, Rolling, Welding and Grinding Activities (Building B)

Emission Unit ID:	U-MFR_B
Emission Source:	MACHINING_B, WELD_B, GRIND_B, FABRIC_B
Description:	Combined oxyfuel combustion- and fume-related emissions from machining (preheat torches, plasma arc cutting, beveling), welding and grinding (belt sanding) of steel plates and flanges. Potential emissions discharge outdoors via building ventilation system(s) equipped with fabric filters.
Location:	Building B
Number of Exhaust Points:	6
Annual Operating Hours:	8,760 hrs/yr

Pollutant Name	Pollutant CAS No.	Emission Rate (lb/hr)	Emission Rate Exhaust Point (lb/hr)	Annual Emissions (tpy)	Pollutant Emission Source Description
Selenium	7782-49-2	3.57E-07	5.95E-08	1.56E-06	Oxyfuel Combustion
Other Non-Criteria Air Contaminants					
Copper	7440-50-8	0.000	2.20E-05	5.77E-04	Machining, Grinding
Aluminum Oxide	1344-28-1	2.32E-04	3.87E-05	1.02E-03	Grinding
Cured Phenolic Resin	9003-35-4	7.74E-05	1.29E-05	3.39E-04	Grinding
Calcium Carbonate	16389-88-1	3.61E-05	6.02E-06	1.58E-04	Grinding
Cryolite	13775-53-6	6.19E-05	1.03E-05	2.71E-04	Grinding
Potassium Floroborate	14075-53-7	6.19E-05	1.03E-05	2.71E-04	Grinding

Potential Emissions From Natural Gas-Fired Recuperative Thermal Oxidizer No. 1

Emission Unit ID(s):	U-BOOTH
Emission Control:	RTO_1
Description:	Individual recuperative thermal oxidizer (RTO) with 95% minimum overall VOC destruction efficiency. When destructed, VOCs in the exhaust stream become fuel for the oxidizer. The RTO design is based on a maximum VOC/HAP loading of 165 lbs/hr. As the VOC load to the oxidizer changes, the temperature in the oxidizer will rise or fall accordingly. The temperature controller will automatically signal the fuel gas control valve to increase or decrease the fuel input as required. This allows the oxidizer to maintain oxidization set point temperature for a wide range of flow and VOC levels while maintaining peak fuel efficiency. The PTE calculations are based on the 24/7 burning of natural gas at 100% load, although it is expected natural gas will be primarily burned during startup. Residual VOC/HAP emissions from paint booth operations (after control) are accounted for separately.
Location:	Building C
Maximum Heat Input:	7,350,000 Btu/hr
	7.35 MMBtu/hr
Fuel Type:	Natural Gas
HHV Natural Gas:	1,050 Btu/scf
Hourly Fuel Consumption:	7,000 scf/hr
Annual Operation:	8,760 hrs/yr
Annual Fuel Cap:	61.3 MMscf/yr

Pollutant Name	Pollutant CAS No.	AP-42 Factors (lb/MMscf) [1], [2]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	100	0.700	0.095	3.07
CO	630-08-0	84	0.588	0.080	2.58
PM_{10}	NY075-00-5	7.6	5.32E-02	7.24E-03	0.233
$PM_{2.5}$	NY750-02-5	7.6	5.32E-02	7.24E-03	0.233
SO_2	7446-09-5	0.6	4.20E-03	5.71E-04	1.84E-02
VOC	NY998-00-0	5.5	3.85E-02	5.24E-03	0.169
Pb	7439-92-1	0.0005	3.50E-06	4.76E-07	1.53E-05
CO_2	124-38-9	120,000	840	114	3,679
N_2O	10024-97-2	0.64	4.48E-03	6.10E-04	1.96E-02
CH_4	74-82-8	2.30	1.61E-02	2.19E-03	7.05E-02
CO_2e [3]	NY750-00-0	120,247	842	115	3,687
NH_3	7664-41-7	3.2	2.24E-02	3.05E-03	9.81E-02
Total HAPs	NY100-00-0	1.89	1.32E-02	1.80E-03	5.79E-02
2-Methylnaphthalene	91-57-6	2.4E-05	1.68E-07	2.29E-08	7.36E-07
3-Methylchloranthrene	56-49-5	1.8E-06	1.26E-08	1.71E-09	5.52E-08
7,12-Dimethylbenz(a)anthracene	57-97-6	1.6E-05	1.12E-07	1.52E-08	4.91E-07
Acenaphthene	83-32-9	1.8E-06	1.26E-08	1.71E-09	5.52E-08
Acenaphthylene	203-96-8	1.8E-06	1.26E-08	1.71E-09	5.52E-08
Anthracene	120-12-7	2.4E-06	1.68E-08	2.29E-09	7.36E-08
Benz(a)anthracene	56-55-3	1.8E-06	1.26E-08	1.71E-09	5.52E-08
Benzene	71-43-2	2.1E-03	1.47E-05	2.00E-06	6.44E-05
Benzo(a)pyrene	50-32-8	1.2E-06	8.40E-09	1.14E-09	3.68E-08
Benzo(b)fluoranthene	205-99-2	1.8E-06	1.26E-08	1.71E-09	5.52E-08

Potential Emissions From Natural Gas-Fired Recuperative Thermal Oxidizer No. 1

Benzo(g,h,i)perylene	191-24-2	1.2E-06	8.40E-09	1.14E-09	3.68E-08
Benzo(k)fluoranthene	205-82-3	1.8E-06	1.26E-08	1.71E-09	5.52E-08
Chrysene	218-01-9	1.8E-06	1.26E-08	1.71E-09	5.52E-08
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	8.40E-09	1.14E-09	3.68E-08
Dichlorobenzene	25321-22-6	1.2E-03	8.40E-06	1.14E-06	3.68E-05
Fluoranthene	206-44-0	3.0E-06	2.10E-08	2.86E-09	9.20E-08
Fluorene	86-73-7	2.8E-06	1.96E-08	2.67E-09	8.58E-08
Formaldehyde	50-00-0	7.5E-02	5.25E-04	7.14E-05	2.30E-03
Hexane	110-54-3	1.80	1.26E-02	1.71E-03	5.52E-02
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	1.26E-08	1.71E-09	5.52E-08
Naphthalene	91-20-3	6.1E-04	4.27E-06	5.81E-07	1.87E-05
Phenanathrene	85-01-8	1.7E-05	1.19E-07	1.62E-08	5.21E-07
Pyrene	129-00-0	5.0E-06	3.50E-08	4.76E-09	1.53E-07
Toluene	108-88-3	3.4E-03	2.38E-05	3.24E-06	1.04E-04
Arsenic	7440-38-2	2.0E-04	1.40E-06	1.90E-07	6.13E-06
Beryllium	7440-41-7	1.2E-05	8.40E-08	1.14E-08	3.68E-07
Cadmium	7440-43-9	1.1E-03	7.70E-06	1.05E-06	3.37E-05
Chromium	7440-47-3	1.4E-03	9.80E-06	1.33E-06	4.29E-05
Cobalt	7440-48-4	8.4E-05	5.88E-07	8.00E-08	2.58E-06
Manganese	7439-96-5	3.8E-04	2.66E-06	3.62E-07	1.17E-05
Mercury	7439-97-6	2.6E-04	1.82E-06	2.48E-07	7.97E-06
Nickel	7440-02-0	2.1E-03	1.47E-05	2.00E-06	6.44E-05
Selenium	7782-49-2	2.4E-05	1.68E-07	2.29E-08	7.36E-07

Notes:

(1) AP-42 factors from Tables 1.4.2 & Table 1.4-3, unless otherwise noted.

(2) Emission factor for Ammonia was taken from EPA's FIRE database for SCC code 10100602 (Natural Gas Boilers <100 MMBtu, uncontrolled).

(3) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

Potential Emissions From Natural Gas-Fired Hot Water Boilers (Exempt) [1], [2]

Equipment Make/Model:	Simoneau Commander C-200W, C-100W	
Description:	Three hot water boilers firing natural gas each with design maximum heat input ratings less than 10 million British thermal units per hour. Equipment inventory includes two (2) identical hot water boilers (Model C-200W) and one (1) smaller hot water boiler (Model C-100W).	
Location:	Building C	
Maximum Heat Input (Combined):	20,840,000	Btu/hr
	20.8	MMBtu/hr
Fuel Type:	Natural Gas	
HHV Natural Gas:	1,050	Btu/scf
Hourly Fuel Consumption:	19,848	scf/hr
Annual Operation:	8,760	hrs/yr
Annual Fuel Cap:	174	MMscf/yr

Pollutant Name	Pollutant CAS No.	AP-42 Factors (lb/MMscf) [3], [4]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	100	1.98	0.095	8.69
CO	630-08-0	84	1.67	0.080	7.30
PM_{10}	NY075-00-5	7.6	0.151	7.24E-03	0.661
$PM_{2.5}$	NY750-02-5	7.6	0.151	7.24E-03	0.661
SO_2	7446-09-5	0.6	1.19E-02	5.71E-04	5.22E-02
VOC	NY998-00-0	5.5	0.109	5.24E-03	0.478
Pb	7439-92-1	0.0005	9.92E-06	4.76E-07	4.35E-05
CO_2	124-38-9	120,000	2,382	114	10,432
N_2O	10024-97-2	0.64	1.27E-02	6.10E-04	5.56E-02
CH_4	74-82-8	2.30	4.56E-02	2.19E-03	0.200
CO_2e [5]	NY750-00-0	120,247	2,387	115	10,453
NH_3	7664-41-7	3.2	6.35E-02	3.05E-03	0.278
Total HAPs	NY100-00-0	1.89	3.75E-02	1.80E-03	0.164
2-Methylnaphthalene	91-57-6	2.4E-05	4.76E-07	2.29E-08	2.09E-06
3-Methylchloranthrene	56-49-5	1.8E-06	3.57E-08	1.71E-09	1.56E-07
7,12-Dimethylbenz(a)anthracene	57-97-6	1.6E-05	3.18E-07	1.52E-08	1.39E-06
Acenaphthene	83-32-9	1.8E-06	3.57E-08	1.71E-09	1.56E-07
Acenaphthylene	203-96-8	1.8E-06	3.57E-08	1.71E-09	1.56E-07
Anthracene	120-12-7	2.4E-06	4.76E-08	2.29E-09	2.09E-07
Benz(a)anthracene	56-55-3	1.8E-06	3.57E-08	1.71E-09	1.56E-07
Benzene	71-43-2	2.1E-03	4.17E-05	2.00E-06	1.83E-04
Benzo(a)pyrene	50-32-8	1.2E-06	2.38E-08	1.14E-09	1.04E-07
Benzo(b)fluoranthene	205-99-2	1.8E-06	3.57E-08	1.71E-09	1.56E-07
Benzo(g,h,i)perylene	191-24-2	1.2E-06	2.38E-08	1.14E-09	1.04E-07
Benzo(k)fluoranthene	205-82-3	1.8E-06	3.57E-08	1.71E-09	1.56E-07
Chrysene	218-01-9	1.8E-06	3.57E-08	1.71E-09	1.56E-07
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	2.38E-08	1.14E-09	1.04E-07
Dichlorobenzene	25321-22-6	1.2E-03	2.38E-05	1.14E-06	1.04E-04
Fluoranthene	206-44-0	3.0E-06	5.95E-08	2.86E-09	2.61E-07
Fluorene	86-73-7	2.8E-06	5.56E-08	2.67E-09	2.43E-07
Formaldehyde	50-00-0	7.5E-02	1.49E-03	7.14E-05	6.52E-03

Potential Emissions From Natural Gas-Fired Hot Water Boilers (Exempt) [(1), (2)]

Hexane	110-54-3	1.80	3.57E-02	1.71E-03	1.56E-01
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	3.57E-08	1.71E-09	1.56E-07
Naphthalene	91-20-3	6.1E-04	1.21E-05	5.81E-07	5.30E-05
Phenanathrene	85-01-8	1.7E-05	3.37E-07	1.62E-08	1.48E-06
Pyrene	129-00-0	5.0E-06	9.92E-08	4.76E-09	4.35E-07
Toluene	108-88-3	3.4E-03	6.75E-05	3.24E-06	2.96E-04
Arsenic	7440-38-2	2.0E-04	3.97E-06	1.90E-07	1.74E-05
Beryllium	7440-41-7	1.2E-05	2.38E-07	1.14E-08	1.04E-06
Cadmium	7440-43-9	1.1E-03	2.18E-05	1.05E-06	9.56E-05
Chromium	7440-47-3	1.4E-03	2.78E-05	1.33E-06	1.22E-04
Cobalt	7440-48-4	8.4E-05	1.67E-06	8.00E-08	7.30E-06
Manganese	7439-96-5	3.8E-04	7.54E-06	3.62E-07	3.30E-05
Mercury	7439-97-6	2.6E-04	5.16E-06	2.48E-07	2.26E-05
Nickel	7440-02-0	2.1E-03	4.17E-05	2.00E-06	1.83E-04
Selenium	7782-49-2	2.4E-05	4.76E-07	2.29E-08	2.09E-06

Notes:

(1) Emissions from boilers include combustion-related emissions only since evaporative emissions from the paints are fully accounted for in the material balance calculations, based on material usage.

(2) Stationary combustion installations with maximum rated heat input capacities less than 10 million British thermal units per hour firing natural gas are exempt from air permitting pursuant to 6 NYCRR 201-3.2(c)(1)(i).

(3) AP-42 factors from Tables 1.4.2 & Table 1.4-3, unless otherwise noted.

(4) Emission factor for Ammonia was taken from EPA's FIRE database for SCC code 10100602 (Natural Gas Boilers <100 MMBtu, uncontrolled).

(5) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

Site-wide Inventory of Exempt Boilers, Space Heaters, Roof Top Units [1]

Building A

Gas-Fired Unit Heaters

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
MAU-1A	WELDING A010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-2A	WELDING A010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-3A	WELDING A010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-4A	WELDING A010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-5A	WELDING A010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-6A	WELDING A010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-7A	VEHICLE MAINT.	CAMBRIDGE S400	Natural Gas	0.400

Boiler(s)

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
B-1A	TBD	WELLS-MCLAIN-SL750	Natural Gas	0.750

Roof Top Units

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
RTU-1A	ANNEX A ROOF	YHD240	Natural Gas	0.400
RTU-2A	ANNEX A ROOF	YHD240	Natural Gas	0.350

Infrared Burners

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800

VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	MAINT STORAGE	CORYVAC-EP303	Natural Gas	1.200
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800
VP-AA	Manufacturing	CORYVAC-EP303	Natural Gas	0.800

Building B

Gas-Fired Unit Heaters

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
MAU-1B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-2B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-3B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-4B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-5B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-6B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-7B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554
MAU-8B	WELDING B010	CAMBRIDGE S3200	Natural Gas	2.554

Boiler(s)

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
B-1B	TBD	WELLS-MCLAIN EVG399	Natural Gas	0.399

Roof Top Units

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
RTU-1B	ANNEX B ROOF	YHC150	Natural Gas	0.250
RTU-2B	ANNEX B ROOF	YHC06	Natural Gas	0.130

Site-wide Inventory of Exempt Boilers, Space Heaters, Roof Top Units (1)

Infrared Burners				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800
VP-AB	MANUFACTURING	CORYVAC-EP303	Natural Gas	0.800

Building C

Gas-Fired Unit Heaters				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
MAU-1C	C010	CAMBRIDGE S3200	Natural Gas	2.246
MAU-2C	C010	CAMBRIDGE S3200	Natural Gas	2.246

Boiler(s)				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
B-1C	TBD	WELLS-MCLAIN-EVG399	Natural Gas	0.399

Roof Top Unit(s)				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
RTU-1C	ANNEX C ROOF	YHD180	Natural Gas	0.350

Air Handling Unit(s)				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
AHU-1C	ANNEX C ROOF	SEASON 4-VA120	Natural Gas	2.400
AHU-2C	ANNEX C ROOF	SEASON 4-VA121	Natural Gas	2.400

Infrared Burners

Site-wide Inventory of Exempt Boilers, Space Heaters, Roof Top Units [1]

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AC	MANUFACTURING	CORYVAC-EP303	NG	0.800

Building D

Gas-Fired Unit Heater(s)				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
MAU-1D	D010	CAMBRIDGE S1850	Natural Gas	1.757

Boiler(s)				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
B-1D	TBD	WELLS-MCLAIN-EVG299	Natural Gas	0.299

Roof Top Unit(s)				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
RTU-1D	ANNEX D ROOF	YHC092	Natural Gas	0.200

Infrared Burners				
Unit ID	**Location/Department**	**Make/Model**	**Fuel Type**	**Design Heat Input (MMBtu/hr)**
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.800
VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.400

Site-wide Inventory of Exempt Boilers, Space Heaters, Roof Top Units [(1)]

VP-AD	MANUFACTURING	CORYVAC-EP303	NG	0.400

Building E

Gas-Fired Unit Heater(s)

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
MAU-1E	D010	CAMBRIDGE S950	Natural Gas	0.616

Boiler(s)

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
B-1E	TBD	WELLS-MCLAIN-EVG299	Natural Gas	0.299

Roof Top Unit(s)

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
RTU-1E	ANNEX D ROOF	YHC092	Natural Gas	0.200

Infrared Burners

Unit ID	Location/Department	Make/Model	Fuel Type	Design Heat Input (MMBtu/hr)
VP-1E	MANUFACTURING	CORYVAC-EP100	NG	0.150
VP-2E	MANUFACTURING	CORYVAC-EP100	NG	0.450
VP-3E	STORAGE	CORYVAC-EP100	NG	0.150
VP-4E	MANUFACTURING	CORYVAC-EP100	NG	0.150
VP-5E	MANUFACTURING	CORYVAC-EP100	NG	0.150
VP-6E	STORAGE	CORYVAC-EP100	NG	0.150

Notes:

(1) Stationary combustion installations with maximum rated heat input capacities less than 10 million British thermal units per hour firing natural gas are exempt from air permitting pursuant to 6 NYCRR 201-3.2(c)(1)(i).

Potential Emissions From Comfort Heating and Cooling Equipment (Exempt) [1]

Maximum Combined Heat Input:	112,647,000	Btu/hr
	113	MMBtu/hr
Fuel Type:	Natural Gas	
HHV Natural Gas:	1,050	Btu/scf
Hourly Fuel Consumption:	107,283	scf/hr
Annual Operation:	8,760	hrs/yr
Annual Fuel Cap:	940	MMscf/yr

Pollutant Name	Pollutant CAS No.	AP-42 Factors (lb/MMscf) [2]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	100	10.7	9.52E-02	47.0
CO	630-08-0	84	9.01	8.00E-02	39.5
PM_{10}	NY075-00-5	7.6	0.815	7.24E-03	3.57
$PM_{2.5}$	NY750-02-5	7.6	0.815	7.24E-03	3.57
SO_2	7446-09-5	0.6	6.44E-02	5.71E-04	0.282
VOC	NY998-00-0	5.5	0.590	5.24E-03	2.58
Pb	7439-92-1	0.0005	5.36E-05	4.76E-07	2.35E-04
CO_2	124-38-9	120,000	12,874	114	56,388
N_2O	10024-97-2	0.64	6.87E-02	6.10E-04	0.301
CH_4	74-82-8	2.30	0.247	2.19E-03	1.08
CO_2e [3]	NY750-00-0	120,247	12,900	115	56,504
NH_3 [4]	7664-41-7	3.2	0.343	3.05E-03	1.50
Total HAPs	NY100-00-0	1.89	2.03E-01	1.80E-03	0.887
2-Methylnaphthalene	91-57-6	2.4E-05	2.57E-06	2.29E-08	1.13E-05
3-Methylchloranthrene	56-49-5	1.8E-06	1.93E-07	1.71E-09	8.46E-07
7,12-Dimethylbenz(a)anthracene	57-97-6	1.6E-05	1.72E-06	1.52E-08	7.52E-06
Acenaphthene	83-32-9	1.8E-06	1.93E-07	1.71E-09	8.46E-07
Acenaphthylene	203-96-8	1.8E-06	1.93E-07	1.71E-09	8.46E-07
Anthracene	120-12-7	2.4E-06	2.57E-07	2.29E-09	1.13E-06
Benz(a)anthracene	56-55-3	1.8E-06	1.93E-07	1.71E-09	8.46E-07
Benzene	71-43-2	2.1E-03	2.25E-04	2.00E-06	9.87E-04
Benzo(a)pyrene	50-32-8	1.2E-06	1.29E-07	1.14E-09	5.64E-07
Benzo(b)fluoranthene	205-99-2	1.8E-06	1.93E-07	1.71E-09	8.46E-07
Benzo(g,h,i)perylene	191-24-2	1.2E-06	1.29E-07	1.14E-09	5.64E-07
Benzo(k)fluoranthene	205-82-3	1.8E-06	1.93E-07	1.71E-09	8.46E-07
Chrysene	218-01-9	1.8E-06	1.93E-07	1.71E-09	8.46E-07
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	1.29E-07	1.14E-09	5.64E-07
Dichlorobenzene	25321-22-6	1.2E-03	1.29E-04	1.14E-06	5.64E-04
Fluoranthene	206-44-0	3.0E-06	3.22E-07	2.86E-09	1.41E-06
Fluorene	86-73-7	2.8E-06	3.00E-07	2.67E-09	1.32E-06
Formaldehyde	50-00-0	7.5E-02	8.05E-03	7.14E-05	3.52E-02
Hexane	110-54-3	1.80	1.93E-01	1.71E-03	0.846

Potential Emissions From Comfort Heating and Cooling Equipment (Exempt) [1]					
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	1.93E-07	1.71E-09	8.46E-07
Naphthalene	91-20-3	6.1E-04	6.54E-05	5.81E-07	2.87E-04
Phenanathrene	85-01-8	1.7E-05	1.82E-06	1.62E-08	7.99E-06
Pyrene	129-00-0	5.0E-06	5.36E-07	4.76E-09	2.35E-06
Toluene	108-88-3	3.4E-03	3.65E-04	3.24E-06	1.60E-03
Arsenic	7440-38-2	2.0E-04	2.15E-05	1.90E-07	9.40E-05
Beryllium	7440-41-7	1.2E-05	1.29E-06	1.14E-08	5.64E-06
Cadmium	7440-43-9	1.1E-03	1.18E-04	1.05E-06	5.17E-04
Chromium	7440-47-3	1.4E-03	1.50E-04	1.33E-06	6.58E-04
Cobalt	7440-48-4	8.4E-05	9.01E-06	8.00E-08	3.95E-05
Manganese	7439-96-5	3.8E-04	4.08E-05	3.62E-07	1.79E-04
Mercury	7439-97-6	2.6E-04	2.79E-05	2.48E-07	1.22E-04
Nickel	7440-02-0	2.1E-03	2.25E-04	2.00E-06	9.87E-04
Selenium	7782-49-2	2.4E-05	2.57E-06	2.29E-08	1.13E-05

Notes:

(1) Stationary combustion installations with maximum rated heat input capacities less than 10 million British thermal units per hour firing natural gas are exempt from air permitting pursuant to 6 NYCRR 201-3.2(c)(1)(i).

(2) AP-42 factors from Tables 1.4-2 & Table 1.4-3, unless otherwise noted.

(3) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

(4) Emission factor for Ammonia was taken from EPA's FIRE database for SCC code 10100602 (Natural Gas Boilers <100 MMBtu, uncontrolled).

Potential Emissions From Bldg A Natural Gas-Fired Emergency Generator (Exempt Source) [1]

Generator Make/Model:	Generac, SG130	
Engine Maximum Power Output:	228	HP
Genset Maximum Electrical Output:	130	kW
Fuel Type:	Natural Gas	
HHV Natural Gas:	1,050	Btu/scf
Maximum Hourly Fuel Consumption:	1,797	scf @ 100% load standby
Maximum Heat Input:	1,886,850	Btu/hr
	1.89	MMBtu/hr
Hourly Fuel Consumption:	1,797	scf/hr
Limit on Annual Operation:	500	hrs/yr
Annual Fuel Cap:	0.90	MMscf/yr

Pollutant Name	Pollutant CAS No.	Emission Factors (lb/MMBtu) [2]	Engine Manufacturer Emissions Data (g/bhp-hr) [3]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	N/A	0.10	5.03E-02	2.66E-02	1.26E-02
CO	630-08-0	N/A	0.74	0.372	0.197	9.30E-02
PM_{10}	NY075-00-5	9.50E-03	--	1.79E-02	9.50E-03	4.48E-03
$PM_{2.5}$	NY750-02-5	9.50E-03	--	1.79E-02	9.50E-03	4.48E-03
SO_2	7446-09-5	5.88E-04	--	1.11E-03	5.88E-04	2.77E-04
VOC	NY998-00-0	2.96E-02	--	5.59E-02	2.96E-02	1.40E-02
Pb	7439-92-1	--	--	--	--	--
CO_2	124-38-9	117	--	221	117	55.2
N_2O	10024-97-2	2.21E-04	--	4.16E-04	2.21E-04	1.04E-04
CH_4	74-82-8	2.21E-03	--	4.16E-03	2.21E-03	1.04E-03
CO_2e [4]	NY750-00-0	117	--	221	117	55.2
Total HAPs	NY100-00-0	3.23E-02	--	6.10E-02	3.23E-02	1.52E-02
Acenaphthene	83-32-9	--	--	--	--	--
Acenaphthylene	203-96-8	--	--	--	--	--
Acetaldehyde	75-07-0	2.8E-03	--	5.26E-03	2.79E-03	1.32E-03
Acrolein	107-02-8	2.6E-03	--	4.96E-03	2.63E-03	1.24E-03
Anthracene	120-12-7	--	--	--	--	--
Benz(a)anthracene	56-55-3	--	--	--	--	--
Benzene	71-43-2	1.6E-03	--	2.98E-03	1.58E-03	7.45E-04
Benzo(a)pyrene	50-32-8	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--
Benzo(k)fluoranthene	205-82-3	--	--	--	--	--
Biphenyl	92-52-4	--	--	--	--	--
1,3-Butadiene	106-99-0	6.6E-04	--	1.25E-03	6.63E-04	3.13E-04
Carbon tetrachloride	56-23-5	1.8E-05	--	3.34E-05	1.77E-05	8.35E-06
Chlorobenzene	108-90-7	1.3E-05	--	2.43E-05	1.29E-05	6.09E-06
Chloroethane	75-00-3	--	--	--	--	--
Chloroform	67-66-3	1.4E-05	--	2.58E-05	1.37E-05	6.46E-06
Chrysene	218-01-9	--	--	--	--	--
1,2-Dibromethane	106-93-4	2.13E-05	--	4.02E-05	2.13E-05	1.00E-05
1,1-Dichloroethane	75-34-3	1.13E-05	--	2.13E-05	1.13E-05	5.33E-06
1,2-Dichloroethane	107-06-2	1.13E-05	--	2.13E-05	1.13E-05	5.33E-06

Potential Emissions From Bldg A Natural Gas-Fired Emergency Generator (Exempt Source) [1]

Dichloromethane	75-09-2	4.12E-05	--	7.77E-05	4.12E-05	1.94E-05
1,2-Dichloropropane	78-87-5	1.30E-05	--	2.45E-05	1.30E-05	6.13E-06
1,3-Dichloropropene	542-75-6	1.27E-05	--	2.40E-05	1.27E-05	5.99E-06
Ethylbenzene	100-41-4	2.48E-05	--	4.68E-05	2.48E-05	1.17E-05
Fluoranthene	206-44-0	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--
Formaldehyde	50-00-0	2.1E-02	--	3.87E-02	2.05E-02	9.67E-03
Hexane	110-54-3	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--
Methanol	67-56-1	3.1E-03	--	5.77E-03	3.06E-03	1.44E-03
Naphthalene	91-20-3	9.7E-05	--	1.83E-04	9.71E-05	4.58E-05
Phenanathrene	85-01-8	--	--	--	--	--
Phenol	108-95-2	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--
Styrene	100-42-5	1.2E-05	--	2.25E-05	1.19E-05	5.61E-06
1,1,2,2,-Tetrachloroethane	79-34-5	2.5E-05	--	4.77E-05	2.53E-05	1.19E-05
Toluene	108-88-3	5.6E-04	--	1.05E-03	5.58E-04	2.63E-04
1,1,2-Trichloroethane	79-00-5	1.5E-05	--	2.89E-05	1.53E-05	7.22E-06
2,2,4-Trimethylpentane	540-84-1	--	--	--	--	--
Vinyl chloride	75-01-4	7.2E-06	--	1.35E-05	7.18E-06	3.39E-06
Xylenes	1330-20-7	2.0E-04	--	3.68E-04	1.95E-04	9.20E-05

Notes:

(1) Exempt from air permitting, pursuant to 6 NYCRR 201-3.2(c)(6).

(2) AP-42 factors from Tables 1.4.2 & Table 1.4-3, unless otherwise noted.

(3) Generac Model SG/MG130 technical data sheet.

(4) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. $CO_2 = 1$; $CH_4 = 21$; $N_2O = 310$.

Potential Emissions From Bldg C Natural Gas-Fired Emergency Generator (Exempt Source) [1]

Generator Make/Model:	Generac, SG200	
Engine Maximum Power Output:	304	HP
Genset Maximum Electrical Output:	200	kW
Fuel Type:	Natural Gas	
HHV Natural Gas:	1,050	Btu/scf
Maximum Hourly Fuel Consumption:	2,460	scf @ 100% load standby
Maximum Heat Input:	2,583,000	Btu/hr
	2.58	MMBtu/hr
Hourly Fuel Consumption:	2,460	scf/hr
Limit on Annual Operation:	500	hrs/yr
Annual Fuel Cap:	1.23	MMscf/yr

Pollutant Name	Pollutant CAS No.	Emission Factors (lb/MMBtu) [2]	Engine Manufacturer Emissions Data (g/bhp-hr) [3]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	N/A	0.12	8.04E-02	3.11E-02	2.01E-02
CO	630-08-0	N/A	0.21	0.141	5.45E-02	3.52E-02
PM_{10}	NY075-00-5	9.50E-03	--	2.45E-02	9.50E-03	6.13E-03
$PM_{2.5}$	NY750-02-5	9.50E-03	--	2.45E-02	9.50E-03	6.13E-03
SO_2	7446-09-5	5.88E-04	--	1.52E-03	5.88E-04	3.80E-04
VOC	NY998-00-0	2.96E-02	--	7.65E-02	2.96E-02	1.91E-02
Pb	7439-92-1	--	--	--	--	--
CO_2	124-38-9	117	--	302	117	75.6
N_2O	10024-97-2	2.21E-04	--	5.70E-04	2.21E-04	1.42E-04
CH_4	74-82-8	2.21E-03	--	5.70E-03	2.21E-03	1.42E-03
CO_2e [4]	NY750-00-0	117	--	302.5	117	75.6
Total HAPs	NY100-00-0	3.23E-02	--	8.35E-02	3.23E-02	2.09E-02
Acenaphthene	83-32-9	--	--	--	--	--
Acenaphthylene	203-96-8	--	--	--	--	--
Acetaldehyde	75-07-0	2.8E-03	--	7.21E-03	2.79E-03	1.80E-03
Acrolein	107-02-8	2.6E-03	--	6.79E-03	2.63E-03	1.70E-03
Anthracene	120-12-7	--	--	--	--	--
Benz(a)anthracene	56-55-3	--	--	--	--	--
Benzene	71-43-2	1.6E-03	--	4.08E-03	1.58E-03	1.02E-03
Benzo(a)pyrene	50-32-8	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--
Benzo(k)fluoranthene	205-82-3	--	--	--	--	--
Biphenyl	92-52-4	--	--	--	--	--
1,3-Butadiene	106-99-0	6.6E-04	--	1.71E-03	6.63E-04	4.28E-04
Carbon tetrachloride	56-23-5	1.8E-05	--	4.57E-05	1.77E-05	1.14E-05
Chlorobenzene	108-90-7	1.3E-05	--	3.33E-05	1.29E-05	8.33E-06
Chloroethane	75-00-3	--	--	--	--	--
Chloroform	67-66-3	1.4E-05	--	3.54E-05	1.37E-05	8.85E-06
Chrysene	218-01-9	--	--	--	--	--
1,2-Dibromethane	106-93-4	2.13E-05	--	5.50E-05	2.13E-05	1.38E-05
1,1-Dichloroethane	75-34-3	1.13E-05	--	2.92E-05	1.13E-05	7.30E-06
1,2-Dichloroethane	107-06-2	1.13E-05	--	2.92E-05	1.13E-05	7.30E-06

Potential Emissions From Bldg C Natural Gas-Fired Emergency Generator (Exempt Source) (1)

Dichloromethane	75-09-2	4.12E-05	--	1.06E-04	4.12E-05	2.66E-05
1,2-Dichloropropane	78-87-5	1.30E-05	--	3.36E-05	1.30E-05	8.39E-06
1,3-Dichloropropene	542-75-6	1.27E-05	--	3.28E-05	1.27E-05	8.20E-06
Ethylbenzene	100-41-4	2.48E-05	--	6.41E-05	2.48E-05	1.60E-05
Fluoranthene	206-44-0	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--
Formaldehyde	50-00-0	2.1E-02	--	5.30E-02	2.05E-02	1.32E-02
Hexane	110-54-3	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--
Methanol	67-56-1	3.1E-03	--	7.90E-03	3.06E-03	1.98E-03
Naphthalene	91-20-3	9.7E-05	--	2.51E-04	9.71E-05	6.27E-05
Phenanathrene	85-01-8	--	--	--	--	--
Phenol	108-95-2	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--
Styrene	100-42-5	1.2E-05	--	3.07E-05	1.19E-05	7.68E-06
1,1,2,2,-Tetrachloroethane	79-34-5	2.5E-05	--	6.53E-05	2.53E-05	1.63E-05
Toluene	108-88-3	5.6E-04	--	1.44E-03	5.58E-04	3.60E-04
1,1,2-Trichloroethane	79-00-5	1.5E-05	--	3.95E-05	1.53E-05	9.88E-06
2,2,4-Trimethylpentane	540-84-1	--	--	--	--	--
Vinyl chloride	75-01-4	7.2E-06	--	1.85E-05	7.18E-06	4.64E-06
Xylenes	1330-20-7	2.0E-04	--	5.04E-04	1.95E-04	1.26E-04

Notes:

(1) Exempt from air permitting, pursuant to 6 NYCRR 201-3.2(c)(6).

(2) AP-42 factors from Tables 1.4.2 & Table 1.4-3, unless otherwise noted.

(3) Generac Model SG050NA technical data sheet.

(4) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

Potential Emissions From Bldg E Natural Gas-Fired Emergency Generator (Exempt Source) [1]

Generator Make/Model:	Generac, SG150	
Engine Maximum Power Output:	229	HP
Genset Maximum Electrical Output:	150	kW
Fuel Type:	Natural Gas	
HHV Natural Gas:	1,050	Btu/scf
Maximum Hourly Fuel Consumption:	2,042	scf @ 100% load standby
Maximum Heat Input:	2,144,100	Btu/hr
	2.14	MMBtu/hr
Hourly Fuel Consumption:	2,042	scf/hr
Limit on Annual Operation:	500	hrs/yr
Annual Fuel Cap:	1.02	MMscf/yr

Pollutant Name	Pollutant CAS No.	Emission Factors (lb/MMBtu) [2]	Engine Manufacturer Emissions Data (g/bhp-hr) [3]	Emission Rate (lb/hr)	Emission Rate (lb/MMBtu)	Annual Emissions (tpy)
NO_X	NY210-00-0	N/A	0.10	5.05E-02	2.35E-02	1.26E-02
CO	630-08-0	N/A	0.74	0.374	0.174	9.34E-02
PM_{10}	NY075-00-5	9.50E-03	--	2.04E-02	9.50E-03	5.09E-03
$PM_{2.5}$	NY750-02-5	9.50E-03	--	2.04E-02	9.50E-03	5.09E-03
SO_2	7446-09-5	5.88E-04	--	1.26E-03	5.88E-04	3.15E-04
VOC	NY998-00-0	2.96E-02	--	6.35E-02	2.96E-02	1.59E-02
Pb	7439-92-1	--	--	--	--	--
CO_2	124-38-9	117	--	251	117	62.7
N_2O	10024-97-2	2.21E-04	--	4.73E-04	2.21E-04	1.18E-04
CH_4	74-82-8	2.21E-03	--	4.73E-03	2.21E-03	1.18E-03
CO_2e [4]	NY750-00-0	117	--	251	117	62.8
Total HAPs	NY100-00-0	3.23E-02	--	6.93E-02	3.23E-02	1.73E-02
Acenaphthene	83-32-9	--	--	--	--	--
Acenaphthylene	203-96-8	--	--	--	--	--
Acetaldehyde	75-07-0	2.8E-03	--	5.98E-03	2.79E-03	1.50E-03
Acrolein	107-02-8	2.6E-03	--	5.64E-03	2.63E-03	1.41E-03
Anthracene	120-12-7	--	--	--	--	--
Benz(a)anthracene	56-55-3	--	--	--	--	--
Benzene	71-43-2	1.6E-03	--	3.39E-03	1.58E-03	8.47E-04
Benzo(a)pyrene	50-32-8	--	--	--	--	--
Benzo(b)fluoranthene	205-99-2	--	--	--	--	--
Benzo(g,h,i)perylene	191-24-2	--	--	--	--	--
Benzo(k)fluoranthene	205-82-3	--	--	--	--	--
Biphenyl	92-52-4	--	--	--	--	--
1,3-Butadiene	106-99-0	6.6E-04	--	1.42E-03	6.63E-04	3.55E-04
Carbon tetrachloride	56-23-5	1.8E-05	--	3.80E-05	1.77E-05	9.49E-06
Chlorobenzene	108-90-7	1.3E-05	--	2.77E-05	1.29E-05	6.91E-06
Chloroethane	75-00-3	--	--	--	--	--
Chloroform	67-66-3	1.4E-05	--	2.94E-05	1.37E-05	7.34E-06
Chrysene	218-01-9	--	--	--	--	--
1,2-Dibromethane	106-93-4	2.13E-05	--	4.57E-05	2.13E-05	1.14E-05
1,1-Dichloroethane	75-34-3	1.13E-05	--	2.42E-05	1.13E-05	6.06E-06
1,2-Dichloroethane	107-06-2	1.13E-05	--	2.42E-05	1.13E-05	6.06E-06

Potential Emissions From Bldg E Natural Gas-Fired Emergency Generator (Exempt Source) [1]

Dichloromethane	75-09-2	4.12E-05	--	8.83E-05	4.12E-05	2.21E-05
1,2-Dichloropropane	78-87-5	1.30E-05	--	2.79E-05	1.30E-05	6.97E-06
1,3-Dichloropropene	542-75-6	1.27E-05	--	2.72E-05	1.27E-05	6.81E-06
Ethylbenzene	100-41-4	2.48E-05	--	5.32E-05	2.48E-05	1.33E-05
Fluoranthene	206-44-0	--	--	--	--	--
Fluorene	86-73-7	--	--	--	--	--
Formaldehyde	50-00-0	2.1E-02	--	4.40E-02	2.05E-02	1.10E-02
Hexane	110-54-3	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	193-39-5	--	--	--	--	--
Methanol	67-56-1	3.1E-03	--	6.56E-03	3.06E-03	1.64E-03
Naphthalene	91-20-3	9.7E-05	--	2.08E-04	9.71E-05	5.20E-05
Phenanathrene	85-01-8	--	--	--	--	--
Phenol	108-95-2	--	--	--	--	--
Pyrene	129-00-0	--	--	--	--	--
Styrene	100-42-5	1.2E-05	--	2.55E-05	1.19E-05	6.38E-06
1,1,2,2,-Tetrachloroethane	79-34-5	2.5E-05	--	5.42E-05	2.53E-05	1.36E-05
Toluene	108-88-3	5.6E-04	--	1.20E-03	5.58E-04	2.99E-04
1,1,2-Trichloroethane	79-00-5	1.5E-05	--	3.28E-05	1.53E-05	8.20E-06
2,2,4-Trimethylpentane	540-84-1	--	--	--	--	--
Vinyl chloride	75-01-4	7.2E-06	--	1.54E-05	7.18E-06	3.85E-06
Xylenes	1330-20-7	2.0E-04	--	4.18E-04	1.95E-04	1.05E-04

Notes:

(1) Exempt from air permitting, pursuant to 6 NYCRR 201-3.2(c)(6).

(2) AP-42 factors from Tables 1.4.2 & Table 1.4-3, unless otherwise noted.

(3) Generac Model SG/MG130 technical data sheet.

(4) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

Potential Emissions Two (2) Diesel-Fired Emergency Fire Pumps (Exempt Sources)

Fire Pump Make/Model:	Clarke C18H0, Model UFAD18	
Engine Maximum Power Output:	460	HP
Fuel Type:	Ultra Low Sulfur Diesel (ULSD)	
Diesel Heating Value:	137,030	Btu/gal [1]
Max Hourly Fuel Consumption:	30	gal/hr/unit @ 100% load
	60	gal/hr @ 100% load (combined)
Engine Maximum Heat Input:	4.11	MMBtu/hr/unit
	8.22	MMBtu/hr (combined)
Annual Operation (Potential):	500	hr/yr
Equivalent Annual Fuel Cap:	15,000	gal/yr/unit
	30,000	gal/yr (combined)

Pollutant Name	Pollutant CAS No.	Emission Factor (lb/MMBtu) [2]	Engine Manufacturer Emissions Data (g/bhp-hr) [3]	Combined Hourly Emission Rate (lb/hr)	Combined Annual Emissions (tpy)
NO_X	NY210-00-0	N/A	2.30	4.66	1.17
CO	630-08-0	N/A	0.37	0.750	0.188
SO_2 [4]	7446-09-5	1.55E-03	--	1.27E-02	3.19E-03
VOC	NY998-00-0	0.155	--	1.27	0.319
PM_{10}	NY075-00-5	N/A	0.078	0.158	3.96E-02
$PM_{2.5}$	NY750-02-5	N/A	0.078	0.158	3.96E-02
CO_2	124-38-9	164	--	1,348	337
N_2O [5]	10024-97-2	1.32E-03	--	1.09E-02	2.72E-03
Methane [5]	74-82-8	6.61E-03	--	5.44E-02	1.36E-02
CO_2e [6]	NY750-00-0	165	--	1,353	338
Total HAPs	NY100-00-0	1.75E-03	--	1.43E-02	3.59E-03
Acenaphthene	83-32-9	6.40E-07	--	5.26E-06	1.32E-06
Acenaphthylene	203-96-8	2.28E-06	--	1.87E-05	4.69E-06
Acetaldehyde	75-07-0	3.46E-04	--	2.84E-03	7.11E-04
Acrolein	107-02-8	4.17E-05	--	3.43E-04	8.57E-05
Anthracene	120-12-7	8.43E-07	--	6.93E-06	1.73E-06
Ben(a)anthracene	56-55-3	7.57E-07	--	6.22E-06	1.56E-06
Benzene	71-43-2	4.20E-04	--	3.45E-03	8.63E-04
Benzo(a)pyrene	50-32-8	8.47E-08	--	6.96E-07	1.74E-07
Benzo(b)fluoranthene	205-99-2	4.47E-08	--	3.68E-07	9.19E-08
Benzo(g,h,i)perylene	191-24-2	2.20E-07	--	1.81E-06	4.52E-07
Benzo(k)fluoranthene	205-82-3	6.98E-08	--	5.74E-07	1.43E-07
1,3-Butadiene	106-99-0	1.76E-05	--	1.45E-04	3.62E-05
Chrysene	218-01-9	1.59E-07	--	1.31E-06	3.27E-07
Dibenz(a,h)anthracene	53-70-3	2.63E-07	--	2.16E-06	5.41E-07
Fluoranthene	206-44-0	3.43E-06	--	2.82E-05	7.05E-06
Fluorene	86-73-7	1.32E-05	--	1.09E-04	2.71E-05
Formaldehyde	50-00-0	5.32E-04	--	4.37E-03	1.09E-03
Indeno(1,2,3-c,d)pyrene	193-39-5	1.69E-07	--	1.39E-06	3.47E-07
Naphthalene	91-20-3	3.82E-05	--	3.14E-04	7.85E-05

Potential Emissions Two (2) Diesel-Fired Emergency Fire Pumps (Exempt Sources)

Phenanthrene	85-01-8	1.32E-05	--	1.09E-04	2.71E-05
Pyrene	129-00-0	2.15E-06	--	1.77E-05	4.42E-06
Toluene	108-88-3	1.84E-04	--	1.51E-03	3.78E-04
Xylenes	1330-20-07	1.28E-04	--	1.05E-03	2.63E-04

Notes:

(1) AP-42 Chapter 3, Section 3.4, Table 3.4-1, Reference a.

(2) AP-42 Emission Factors from Chapter 3, Section 3.3, Tables 3.3-1, 3.3-2, for Diesel Industrial Engines

(3) Clarke C18H0, Model UFAD18 technical data sheet.

(4) SO_2 emission factor calculated using the following equation: S X 0.02 X D X (1/HV), where S = weight percent sulfur content of the fuel, 0.02 = conversion factor converting the weight percent to a weight fraction multiplied by the ratio of the moecular weight of SO_2 to the molecular weight of sulfur, D = the density of the fuel, and HV = the heating value of the fuel. For this calculation, the values used were S - 0.0015% (corresponnding to 15 ppm Ultra Low Sulfur), D - 7.14 lb/gal, and HV - 0.138 MMBtu/gal.

(5) Table 1 from "Emission Factors for Greenhouse Gas Inventories", EPA Center for Corporate Climate Leadership, updated April 1, 2021. https://www.epa.gov/sites/default/files/2021-04/documents/emission-factors_apr2021.pdf

(6) 6 NYCRR 231-13.9 Table 9 Global warming potential values for calculating CO_2 equivalents. CO_2 = 1; CH_4 = 21; N_2O = 310.

U-PBLST Emission Rate Calculation Methodology and Example Calculations

U-PBLST proposed allowable hourly emission rate calculation methodology using mass balance. Chromium, manganese, nickel and copper emissions from U-PBLST are included since these elements are shown to be potentially present in the abrasive materials being handled (1.2 percent by weight Mn, 0.1 percent by weight Cr, Ni and Cu) per the steel shot/grit safety data sheet (SDS).

U-PBLST nozzle rating is 30,000 lbs abrasive/hr. The 30,000 lbs/hr is the amount of abrasive thrown by the blast wheel onto the stainless steel plate, but all of this abrasive is returned to the blast wheel by the unit's recovery system. The abrasive circulates in a closed loop in the machine. There is actually less than 30,000 lbs of abrasive in circulation within the machine at any given time.

Based on data from other Marmen facilities, 600 lbs of abrasive per week (after 20 hours of operation, based on a 4 hour/day duty cycle, 5 days per week) is added to the machine to keep the amount of abrasive constant. The 600 lbs of lost material is conservatively assumed to be discharged to atmosphere.

U-PBLST allowable hourly emission rate calculation methodology:

$$E\ (Pol)\ = \frac{MLoss}{Ops}\ \times \left[1 - \left(\frac{CE}{100}\right)\right]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/hr)
$MLoss$	= Weekly abrasive material losses (lbs/wk)
Ops	= Unit operating hours (hrs/wk)
CE	= Control device efficiency. Use 0 if none present (%). 99% removal of particulates is assumed for U-PBLST fabric filters.

U-PBLST allowable hourly emission rate calculation example calculation for total PM, PM_{10}, $PM_{2.5}$:

$$E\ (PM10)\ = \left(\frac{600\ lbs\ abrasive\ losses}{wk}\right) \times \left(\frac{day}{4\ hrs}\right) \times \left(\frac{wk}{5\ days}\right) \times \left[1 - \left(\frac{99\%}{100}\right)\right]$$

$$E\ (PM10)\ = 0.300\ \text{lbs/hr}$$

U-TBLST Emission Rate Calculation Methodology and Example Calculations

U-TBLST proposed allowable hourly emission rate calculation methodology. Chromium, manganese, nickel and copper emissions from U-TBLST are included since these elements are shown to be potentially present in the abrasive materials being handled (1.2 percent by weight Mn, 0.1 percent by weight Cr, Ni and Cu) per the steel shot/grit safety data sheet (SDS).

U-TBLST allowable hourly emission rate calculation methodology:

$$E\ (Pol)\ =\ Q\ \times\ EF(Pol)\ \times\frac{1}{2{,}000}\times\left[1-\left(\frac{CE}{100}\right)\right]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/hr)
Q	= Hourly blast media used (lbs/hr)
$EF(Pol)$	= Emission factor (lbs/ton of blast media used)
$2{,}000$	= Factor for converting from tons to lbs.
CE	= Control device efficiency. Use 0 if none present (%). 99% removal of particulates is assumed for U-TBLST fabric filters.

U-TBLST allowable hourly emission rate calculation example calculation for total PM, PM_{10} [1]:

$$E\ (PM10)\ =\ \left(\frac{3{,}500\ lbs\ abrasive}{hr}\right)\times\left(\frac{10\ lbs\ PM10}{ton\ abrasive\ used}\right)\times\left(\frac{1\ ton}{2{,}000\ lbs}\right)\times\left[1-\left(\frac{99\%}{100}\right)\right]$$

$$\boxed{E\ (PM10)\ =0.175\ \text{lbs/hr}}$$

[1] Total PM, PM_{10} Emission Factor from Air Pollution Control District County of San Diego. "Abrasive Blasting." 1999. County of San Diego.

U-TBLST allowable hourly emission rate calculation example calculation for speciated particulate (nickel):

$$E\ (Ni)\ = \left(\frac{3{,}500\ lbs\ abrasive}{hr}\right) \times \left(\frac{10\ lbs\ total\ PM}{ton\ abrasive\ used}\right) \times \left(\frac{1\ ton}{2{,}000\ lbs}\right) \times \left(\frac{0.1\%\ by\ wt\ Ni}{100}\right) \times \left[1 - \left(\frac{99\%}{100}\right)\right]$$

$E\ (Ni)\ =$ 1.75E-04 lbs/hr

U-BOOTH VOC and Organic HAP Emission Rate Calculation Methodology and Example Calculations

U-BOOTH proposed allowable hourly emission rate calculation methodology. VOC and organic HAP emissions from U-BOOTH result from evaporative emissions from spray painting (after recuperative thermal oxidizer [RTO] control), in addition to VOC/HAP emissions from RTO operation (due to combustion of natural gas).

U-BOOTH allowable hourly VOC/organic HAP emission rate calculation methodology:

$$E\ (Pol)\ =\ V\ \times \rho\ \times \left(\frac{WP(Pol)}{100}\right) \times \left[1-\left(\frac{CE}{100}\right)\right] \times (2\ Booths)\ +\ [RTO\ Emissions]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/hr)
V	= Volume of coating applied (gal/hr).
ρ	= Density of coating (lbs/gal).
$WP(Pol)$	= Weight percent of pollutant in the coating. This may refer to total VOC in the coating or for an individual pollutant for speciation purposes. (%)
CE	= Efficiency of control device, if any. Use 0 if none present (%). 95% removal of VOC/organic HAP by paint booth RTO is assumed for U-BOOTH.
$RTO\ Emissions$	= Natural gas combustion-related VOC/organic HAP emissions from RTO (lbs/hr), based on AP-42 Emission Factors.

U-BOOTH allowable hourly VOC emission rate calculation example calculation:

$$E\ (VOC)\ =\ \left(\frac{26.0\ gal}{hr}\right) \times \left(\frac{22.21\ lbs}{gal}\right) \times \left(\frac{16.2\%\ VOC}{100}\right) \times \left[1-\left(\frac{95\%}{100}\right)\right] \times (2\ Booths)\ +\ \left[\left(\frac{5.5\ lbs\ VOC}{MMscf\ NG}\right) \times \left(\frac{0.007\ MMscf\ NG}{hr}\right)\right]$$

$E\ (VOC)\ =$ 9.42 lbs/hr + 3.85E-02 lbs/hr

$E\ (VOC)\ =$ 9.46 lbs/hr

U-BOOTH allowable annual VOC/organic HAP emission rate calculation methodology:

$$E\ (Pol)\ = \sum_{Individual\ Coating\ Product}^{All\ Coating\ Products} \{V\ \times \rho\ \times \left(\frac{WP(Pol)}{100}\right) \times \left[1 - \left(\frac{CE}{100}\right)\right]\} + [RTO\ Emissions]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/yr)
V	= Volume of coating applied (gal/yr).
ρ	= Density of coating (lbs/gal).
$WP(Pol)$	= Weight percent of pollutant in the coating. This may refer to total VOC in the coating or for an individual pollutant for speciation purposes. (%)
CE	= Efficiency of control device, if any. Use 0 if none present (%). 95% removal of VOC/organic HAP by paint booth RTO is assumed for U-BOOTH.
$RTO\ Emissions$	= Natural gas combustion-related VOC/organic HAP emissions from RTO (lbs/yr), based on AP-42 Emission Factors.

U-BOOTH Particulate/Inorganic HAP Emission Rate Calculation Methodology and Example Calculations

U-BOOTH proposed allowable hourly emission rate calculation methodology. Particulate (PM_{10}/$PM_{2.5}$) and inorganic HAP emissions from U-BOOTH result from spray paint overspray in addition to particulate/inorganic HAP emissions from recuperative thermal oxidizer (RTO) operation (due to combustion of natural gas).

U-BOOTH allowable hourly PM_{10}/$PM_{2.5}$/inorganic HAP emission rate calculation methodology:

$$E\ (Pol)\ =\ Q\ \times \rho\ \times \left(\frac{WP(Pol)}{100}\right) \times \left[1-\left(\frac{TE}{100}\right)\right] \times \left[1-\left(\frac{CE}{100}\right)\right] \times C(Pol) \times (2\ Booths)\ +\ [RTO\ Emissions]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/hr)
Q	= Quantity of coating applied (gal/hr).
ρ	= Density of coating (lbs/gal).
$WP(Pol)$	= Weight percent of pollutant in the coating. This may refer to total solids in the coating or for an individual pollutant for speciation purposes. (%)
$C(Pol)$	= Fractional percentage of PM_{10} or $PM_{2.5}$ to total PM. For solvent-based surface coatings, this value is 0.960 for PM_{10} and 0.925 for $PM_{2.5}$. For water-based surface coatings, this value is 0.680 for PM_{10} and 0.620 for $PM_{2.5}$. Use 1 for calculating inorganic HAP.
TE	= Transfer efficiency (%). U-BOOTH spray gun transfer efficiency = 75%.
CE	= Efficiency of control device, if any. Use 0 if none present (%). 99% removal of particulates by paint booth fabric filters is assumed for U-BOOTH.
$RTO\ Emissions$	= Natural gas combustion-related particulate/inorganic HAP emissions from RTO (lbs/hr), based on AP-42 Emission Factors.

U-BOOTH PM_{10} allowable hourly emission rate calculation example calculation:

$$E\ (PM10)\ = \left(\frac{43.0\ gal}{hr}\right) \times \left(\frac{12.61\ lbs}{gal}\right) \times \left(\frac{85.4\%\ solids}{100}\right) \times \left[1 - \left(\frac{75\%}{100}\right)\right] \times \left[1 - \left(\frac{99\%}{100}\right)\right] \times (2\ Booths) + \left[\left(\frac{7.6\ lbs\ PM10}{MMscf\ NG}\right) \times \left(\frac{0.007\ MMscf\ NG}{hr}\right)\right]$$

$E\ (PM10)\ =$ 2.22 lbs/hr + 5.32E-02 lbs/hr

$E\ (PM10)\ =$ 2.28 lbs/hr

U-BOOTH allowable annual PM_{10}/$PM_{2.5}$/inorganic HAP emission rate calculation methodology:

$$E\ (Pol)\ = \sum_{Individual\ Coating\ Product}^{All\ Coating\ Products} \{Q \times \rho \times \left(\frac{WP(Pol)}{100}\right) \times \left[1 - \left(\frac{TE}{100}\right)\right] \times \left[1 - \left(\frac{CE}{100}\right)\right] \times C(Pol)\} + [RTO\ Emissions]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/yr)
Q	= Quantity of coating applied (gal/yr).
ρ	= Density of coating (lbs/gal).
$WP(Pol)$	= Weight percent of pollutant in the coating. This may refer to total solids in the coating or for an individual pollutant for speciation purposes. (%)
$C(Pol)$	= Fractional percentage of PM_{10} or $PM_{2.5}$ to total PM. For solvent-based surface coatings, this value is 0.960 for PM_{10} and 0.925 for $PM_{2.5}$. For water-based surface coatings, this value is 0.680 for PM_{10} and 0.620 for $PM_{2.5}$. Use 1 for calculating inorganic HAP.
TE	= Transfer efficiency (%). U-BOOTH spray gun transfer efficiency = 75%.
CE	= Efficiency of control device, if any. Use 0 if none present (%). 99% removal of particulates by paint booth fabric filters is assumed for U-BOOTH.
$RTO\ Emissions$	= Natural gas combustion-related particulate/inorganic HAP emissions from RTO (lbs/yr), based on AP-42 Emission Factors.

U-BOOTH Inorganic HAP Emission Rate Calculation Methodology and Example Calculations

U-BOOTH proposed allowable hourly emission rate calculation methodology. Lead emissions from U-BOOTH result from lead contained in the coating in addition to lead emissions from the recuperative thermal oxidizer (RTO) (due to combustion of natural gas).

U-BOOTH allowable hourly emission rate calculation methodology:

$$E\ (Pol)\ =\ V\ \times \rho\ \times \left(\frac{WP(Pol)}{100}\right) \times \left[1-\left(\frac{TE}{100}\right)\right] \times \left[1-\left(\frac{CE}{100}\right)\right]\ \times (2\ Booths)\ +[RTO\ Emissions]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/hr).
V	= Volume of coating applied (gal/hr). [coating containing trace amounts of lead = Hempathane 55610]
ρ	= Density of coating (lbs/gal). [coating containing trace amounts of lead = Hempathane 55610]
$WP(Pol)$	= Weight percent of pollutant in material (%).
TE	= Transfer efficiency (%). U-BOOTH spray gun transfer efficiency = 75%.
CE	= Efficiency of control device, if any. Use 0 if none present (%). 0% removal of lead by paint booth fabric filters is assumed for U-BOOTH (lead is conservatively assumed to be released in vapor phase).
$RTO\ Emissions$	= Natural gas combustion-related lead emissions from RTO (lbs/hr), based on AP-42 Emission Factors.

U-BOOTH allowable hourly emission rate calculation example calculation:

$$E\ (Pb)\ =\ \left(\frac{19.0\ gal}{hr}\right) \times \left(\frac{12.02\ lbs}{gal}\right) \times \left(\frac{0.0003142\%\ Pb}{100}\right) \times \left[1-\left(\frac{75\%}{100}\right)\right] \times \left[1-\left(\frac{0\%}{100}\right)\right]\ \times (2\ Booths)\ +\left[\left(\frac{0.0005\ lbs\ Pb}{MMscf\ NG}\right) \times \left(\frac{0.007\ MMscf\ NG}{hr}\right)\right]$$

$E\ (Pb)\ =$ 3.59E-04 lbs/hr + 3.50E-06 lbs/hr

$E\ (Pb)\ =$ 3.62E-04 lbs/hr

U-BOOTH allowable annual emission rate calculation methodology:

$$E\ (Pol)\ = \left[V\ \times \rho\ \times \left(\frac{WP(Pol)}{100}\right) \times \left[1 - \left(\frac{TE}{100}\right)\right] \times \left[1 - \left(\frac{CE}{100}\right)\right] + [RTO\ Emissions]\right]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/yr).
V	= Volume of coating applied (gal/yr). [coating containing trace amounts of lead = Hempathane 55610]
ρ	= Density of coating (lbs/gal). [coating containing trace amounts of lead = Hempathane 55610]
$WP(Pol)$	= Weight percent of pollutant in material (%).
TE	= Transfer efficiency (%). U-BOOTH spray gun transfer efficiency = 75%.
CE	= Efficiency of control device, if any. Use 0 if none present (%). 0% removal of lead by paint booth fabric filters is assumed for U-BOOTH (lead is conservatively assumed to be released in vapor phase).
$RTO\ Emissions$	= Natural gas combustion-related lead emissions from RTO (lbs/yr), based on AP-42 Emission Factors.

U-BOOTH modeled annual emission rate calculation example calculation:

$$E\ (Pb)\ = \left[\left(\frac{14100\ gal}{yr}\right) \times \left(\frac{12.02\ lbs}{gal}\right) \times \left(\frac{0.0003142\%\ Pb}{100}\right) \times \left[1 - \left(\frac{75\%}{100}\right)\right] \times \left[1 - \left(\frac{0\%}{100}\right)\right] + \left[\left(\frac{0.0005\ lbs\ Pb}{MMscf\ NG}\right) \times \left(\frac{61.3\ MMscf\ NG}{yr}\right)\right]\right]$$

$E\ (Pb)\ =$ 0.133 lbs/yr + 3.07E-02 lbs/yr

$E\ (Pb)\ =$ 0.164 lbs/yr

U-METAL Emission Rate Calculation Methodology and Example Calculations

U-METAL proposed allowable hourly emission rate calculation methodology:

$$E\ (Pol)\ =\ Q\ \times \left(\frac{WP(Pol)}{100}\right) \times \left[1-\left(\frac{TE}{100}\right)\right] \times \left[1-\left(\frac{CE}{100}\right)\right]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/hr)
Q	= Quantity of material (lbs/hr)
$WP(Pol)$	= Weight percent of pollutant in material (%)
TE	= Transfer efficiency (%). U-METAL spray gun transfer efficiency = 58%.
CE	= Efficiency of control device, if any. Use 0 if none present (%). Hot work associated with metallization (thermal spraying) activities is not expected to volatilize lead. 99% removal of solid phase metals (i.e., lead) by the portable dust collector filter is assumed for U-METAL. An additional 99% removal of remaining solid phase metals by Building C ventilation system fabric filter on VNT4C is assumed, prior to discharging to atmosphere.

U-METAL allowable hourly emission rate calculation example calculation:

$$E\ (Pb)\ =\ \left(\frac{400\ lbs\ zinc\ wire}{hr}\right) \times \left(\frac{0.0014\%\ Pb}{100}\right) \times \left[1-\left(\frac{58\%}{100}\right)\right] \times \left[1-\left(\frac{99\%}{100}\right)\right] \times \left[1-\left(\frac{99\%}{100}\right)\right]$$

$E\ (Pb)\ =$ 2.35E-07 lbs/hr

U-METAL allowable annual emission rate calculation methodology:

$$E\ (Pol)\ =\ Q\ \times \left(\frac{WP(Pol)}{100}\right) \times \left[1-\left(\frac{TE}{100}\right)\right] \times \left[1-\left(\frac{CE}{100}\right)\right]$$

Where,

$E\ (Pol)$	= Pollutant emissions (lbs/yr)
Q	= Quantity of material (lbs/yr)
$WP(Pol)$	= Weight percent of pollutant in material (%)
TE	= Transfer efficiency (%). U-METAL spray gun transfer efficiency = 58%.
CE	= Efficiency of control device, if any. Use 0 if none present (%). Hot work associated with metallization (thermal spraying) activities is not expected to volatilize lead. 99% removal of solid phase metals (i.e., lead) by the filter is assumed for U-METAL. An additional 99% removal of remaining solid phase metals by Building C ventilation system fabric filter on VNT4C is assumed, prior to discharging to atmosphere.

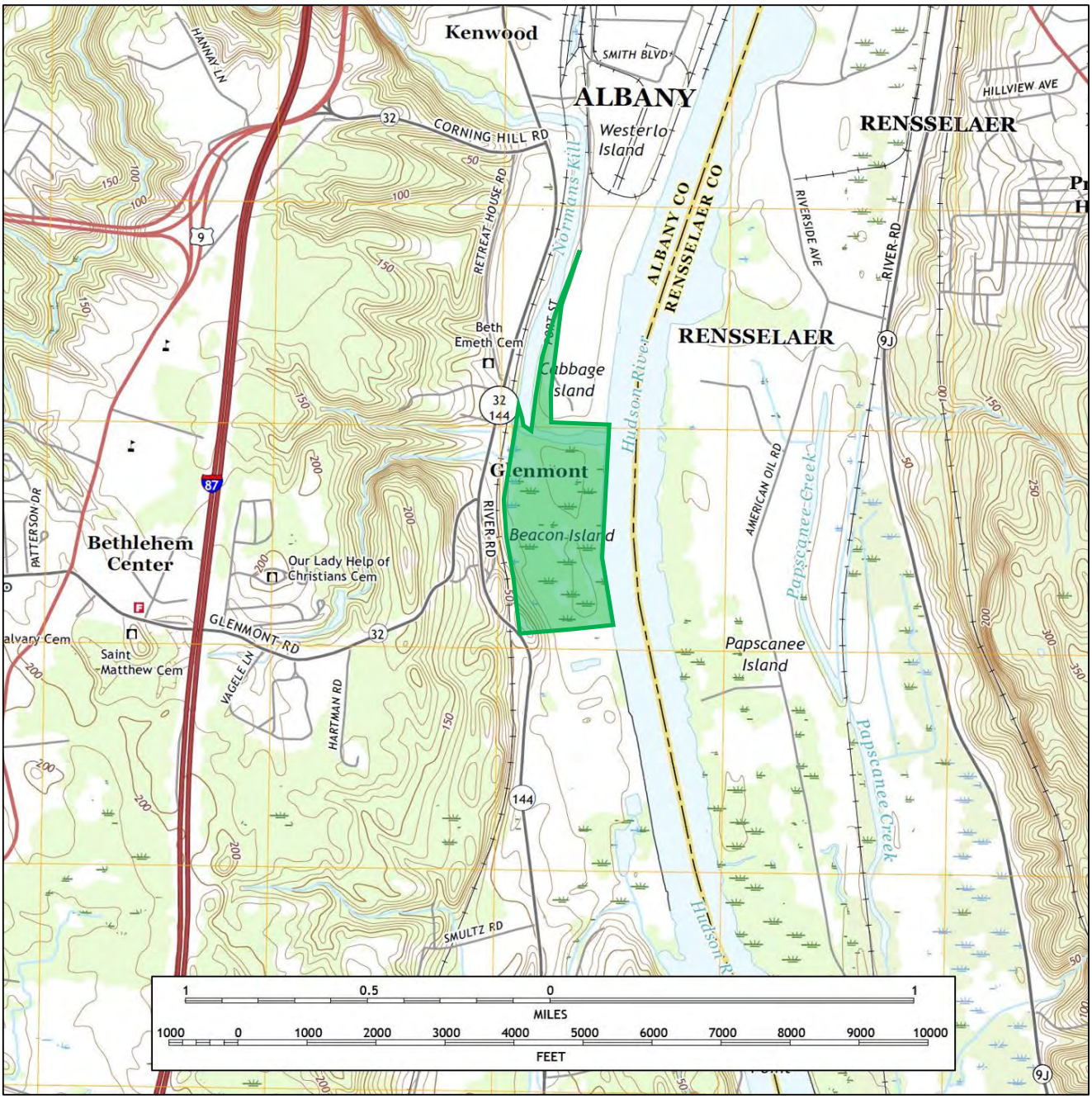
U-METAL allowable annual emission rate calculation example calculation:

$$E\ (Pb)\ =\ \left(\frac{3504000\ lbs\ zinc\ wire}{yr}\right) \times \left(\frac{0.0014\%\ Pb}{100}\right) \times \left[1-\left(\frac{58\%}{100}\right)\right] \times \left[1-\left(\frac{99\%}{100}\right)\right] \times \left[1-\left(\frac{99\%}{100}\right)\right]$$

$E\ (Pb)\ =$ 2.06E-03 lbs/yr

ATTACHMENT C

Figures 1-2



QUADRANGLE LOCATION

SOURCE:
USGS; 2019, Delmar, East Greenbush, NY
7.5 Minute Topographic Quadrangle

TITLE:

SITE LOCATION MAP

PREPARED FOR:

Marmen, Inc.

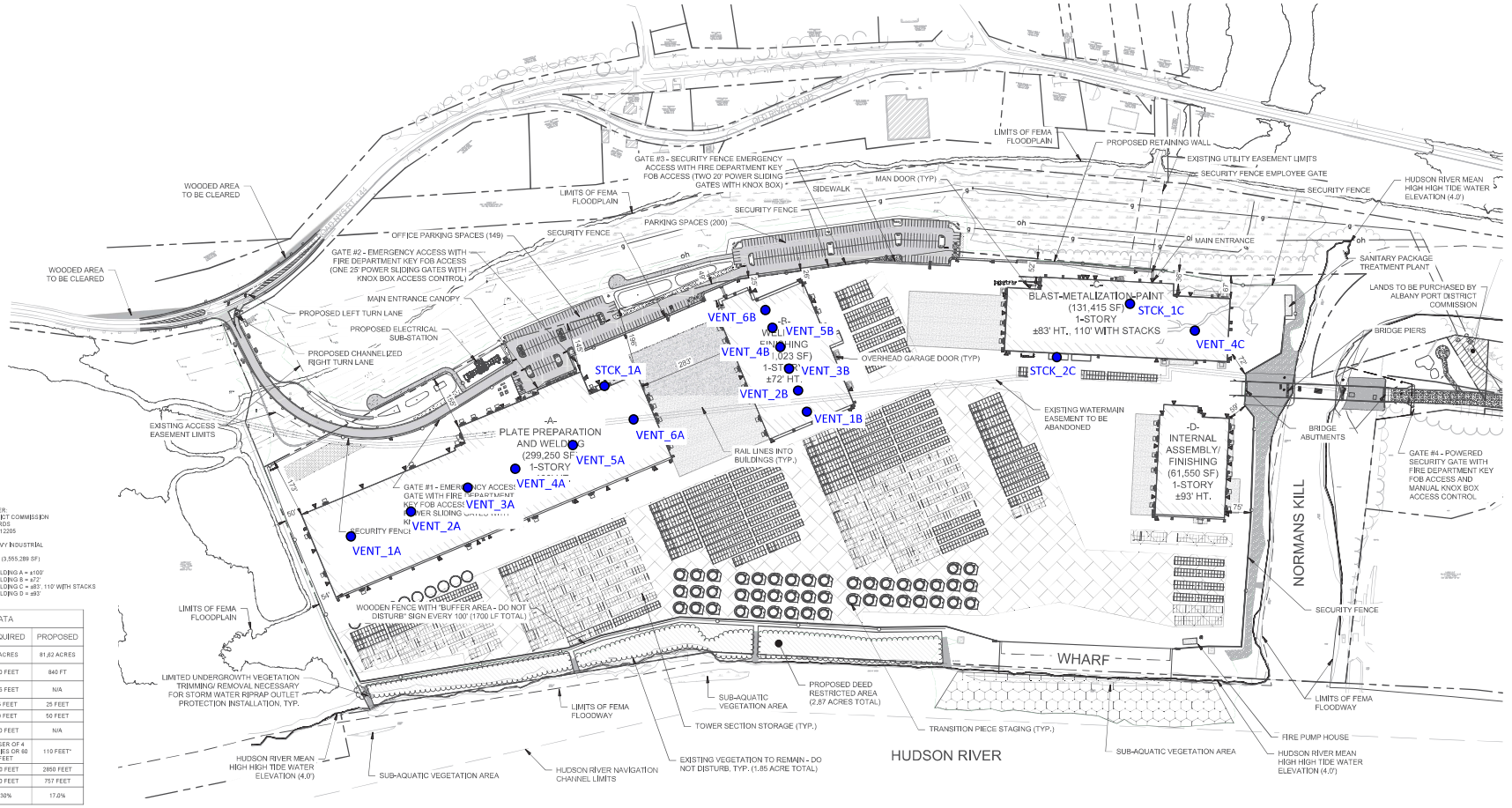
Port of Albany Wind Tower Manufacturing Facility

PROACTIVE Environmental Solutions

PROJECT NO.:	MARMEN, INC.
PREPARED BY:	C.G.
DATE:	2021-12-28

FIGURE

1



PROJECT DATA

1. APPLICANT / LAND OWNER:
   ALBANY PORT DISTRICT COMMISSION
   106 SMITH BOULEVARDS
   ALBANY, NEW YORK 12205
2. EXISTING ZONING: HEAVY INDUSTRIAL
3. LOT AREA: 81.62 ACRES (3,555,289 SF)
4. BUILDING HEIGHT: - BUILDING A = ±100'
   - BUILDING B = ±72'
   - BUILDING C = ±83', 110' WITH STACKS
   - BUILDING D = ±93'

SITE DATA

FEATURE	REQUIRED	PROPOSED
MINIMUM LOT SIZE, NONRESIDENTIAL	5 ACRES	81.62 ACRES
MINIMUM FRONT YARD, FROM RIGHT-OF-WAY	100 FEET	840 FT
MINIMUM FRONT YARD, FROM CENTER LINE	125 FEET	N/A
MINIMUM SIDE YARD	25 FEET	25 FEET
MINIMUM REAR YARD	50 FEET	50 FEET
MINIMUM HIGHWAY FRONTAGE	150 FEET	N/A
MAXIMUM HEIGHT	LESSER OF 4 STORIES OR 60 FEET	110 FEET*
MINIMUM LOT DEPTH	200 FEET	2650 FEET
MINIMUM LOT WIDTH	150 FEET	757 FEET
MAXIMUM LOT COVERAGE	30%	17.0%

* WILL REQUEST A VARIANCE

ZONING:

EXISTING: ±81.62 ACRES HEAVY INDUSTRIAL

PROPOSED: ±81.62 ACRES HEAVY INDUSTRIAL

TAX ACCOUNT NUMBERS: 98.00-2-10.23
98.01-2-1

* ENTIRE SITE IS WITHIN 100-YR FLOODPLAIN

PARKING:

1 SPACE FOR EACH 2 EMPLOYEES ON MAXIMUM WORKING SHIFT.

TOTAL EMPLOYEES = 550

REQUIRED:
275 TOTAL SPACES REQUIRED

PROVIDED:
THE LARGEST SHIFT INCLUDES 180 EMPLOYEES WITH THE LARGEST SHIFT CHANGE INVOLVING 320 EMPLOYEES. INDIVIDUAL BUILDING PARKING DEMANDS FROM MARMEN WELCON HAVE BEEN PROVIDED BELOW:

BUILDING A = 168 SPACES
BUILDING B = 87 SPACES
BUILDING C & D = 100 SPACES TOTAL
TOTAL OPERATOR REQUESTED SPACES = 355

349 TOTAL SPACES PROVIDED

ADA SPACES REQUIRED:
PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

REQUIRED (349 SPACE LOT): 8 SPACES (6 STANDARD & 2 VAN)
FOR TOTAL PARKING 301-400 SPACES

PROVIDED (349 SPACE LOT): 9 SPACES (7 STANDARD & 2 VAN)

LEGEND

- PROPERTY LINE
- EASEMENT LIMITS
- DITCH CENTERLINE
- ROADSIDE SWALE
- BUILDING SETBACK
- OVERHEAD DOORS
- MAN DOORS
- EXISTING BUILDING
- Point Source/Emission Point (Approximate Location)
- PROPOSED BUILDING FOOTPRINT
- MATERIAL STORAGE AREAS
- WETLAND AREA
- WHARF DREDGING AREA
- PAVEMENT AREA
- CONCRETE AREA
- RIP-RAP WATER EMBANKMENT STABILIZATION
- PROPOSED DEED RESTRICTED AREA

0 150 300 450 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
FINAL DESIGN PLANS

NO.	DATE	DESCRIPTION
2	05/06/22	TOWN COMMENTS
3	08/17/22	TOWN COMMENTS

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION SITE

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	AS SHOWN
DATE	05/10/2022
PROJECT	18641.00

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
SITE PLAN OVERALL

DRAWING NUMBER
FIGURE 2

ATTACHMENT D

Part 212 Compliance Modeling Report

March 13, 2023

Part 212 Review and Impact Assessment and Supplemental Part 200 Site-Wide NO_2 and $PM_{2.5}$ NAAQS Compliance Demonstrations Air Dispersion Modeling Report Revision 7

Prepared for

Marmen-Welcon Tower Manufacturing Plant

309 River Road, Bethlehem, NY 12077

PROACTIVE ENVIRONMENTAL SOLUTIONS
WWW.PRO-ENVIRO.COM

Table of Contents

Figures

Appendices

C. Site-Wide NO_2 and $PM_{2.5}$ NAAQS Compliance Demonstration Emission Rates and Results Summaries

Contour Plot – AERMOD Predicted 1-Hour NO_2 Impacts (w/ Background)

Contour Plot – AERMOD Predicted Annual NO_2 Impacts (w/ Background)

Contour Plot – AERMOD Predicted 24-Hour $PM_{2.5}$ Impacts

Contour Plot – AERMOD Predicted Annual $PM_{2.5}$ Impacts

1. Introduction

1.1. Project Identification Information

Applicant:	Marmen Energy Co., Inc.
Facility:	Marmen-Welcon Tower Manufacturing Plant
NYSDEC Facility ID:	4012200322
NYSDEC App No.:	4-0122-00322
Nearest City:	Albany, NY
County:	Albany County
Applicant's Modeler:	Proactive Environmental Solutions

1.2. Project Overview

This latest revised air dispersion modeling protocol and report (Modeling Report R7) has been developed in support of the Air State Facility Permit Application for Marmen Energy Co., Inc. (Marmen) for the above referenced facility. The new facility will be designed to produce 150 Towers per year, or a combination of 100 Towers and 100 Transition Pieces. The facility will utilize various equipment subject to 6 NYCRR Part 212 Process Operations (Part 212). For emission sources identified as process emission sources as defined in 212-1.2(b)(19), the facility must submit all material required by 6 NYCRR Parts 201, 212, 621, and all other applicable regulations. Part 212 requires the facility to precisely identify all air contaminants emitted from each applicable process emission source. Part 212 review involves evaluating the emissions of criteria and non-criteria air contaminants from process operations in New York State and determining the level of air pollution control required and/or whether potential off-property air quality impacts from these contaminants are acceptable using an US EPA preferred air dispersion model (i.e., AERMOD). Modeling Report R7 has been prepared since a Toxic Impact Assessment is required and since AERMOD has been selected as the air dispersion model used to demonstrate compliance with Part 212.

Process emission sources subject to Part 212 Review include the following activities, which are also detailed in Table 1-1:

- Machining (i.e., oxyfuel-cutting, pre-heating torches, rolling);
- Welding;
- Grinding (belt sanding);
- Abrasive blasting and related air pollution controls;
- Paint spray booths, integral curing modes and related air pollution controls; and,
- Metallization (thermal spraying) and related air pollution controls.

Table 1-1: Process Emission Sources Subject to Part 212 Review

Emission Unit ID	Emission Source/ Control ID	Source Description	Overall Control Efficiency (%)		Emission Point ID
			PM	VOC	
U-MFR_A	MACHINING_A, WELD_A, GRIND_A	Various Machining, Grinding, and Welding Activities in Building A. Potential Emissions Discharge Outdoors Via Building Ventilation System(s) Equipped with Fabric Filters for Control of Particulates.	99%	0%	VNT1A
					VNT2A
					VNT3A
					VNT4A
					VNT5A
					VNT6A
U-MFR_B	MACHINING_B, WELD_B, GRIND_B	Various Machining, Grinding, and Welding Activities in Building B. Potential Emissions Discharge Outdoors Via Building Ventilation System(s) Equipped with Fabric Filters for Control of Particulates.	99%	0%	VNT1B
					VNT2B
					VNT3B
					VNT4B
					VNT5B
					VNT6B
U-PBLST	PBLAST, PBLSTFLTR	Plate Blast (Building A Plate Blast Room with Dust Collector Discharge Outdoors)	99%	0%	0001A
U-TBLST	TBLAST, TBLSTFLTR	Tower Blast (Building C Tower Blast Booth with Dust Collector Discharge Outdoors)	99%	0%	0001C
U-BOOTH	MANUAL_P1-2, AUTO_P1-2, OVEN_A-D PBTHFLTR_A-D, RTO_1	One (1) Large and One (1) Small Paint Spray Booth (Manual and Automated Airless Spray Guns), with Integral Curing Modes in Building C with Fabric Filter and Recuperative Thermal Oxidizer Control	99%	95%	0002C

U-METAL	METALLIZING, METALFLTR	Thermal Spraying (Manual and Automated Spraying) in Building C with Fabric Filter Control	99.99%	0%	VNT4C

Figure 1 presents the facility on a United States Geological Survey 7.5-minute topographic map of the surrounding area. Figures 2 presents a plot plan of the site with designated emission point locations.

Hazardous Air Pollutants emitted from a process emission source regulated by a federal NESHAP are to be considered in compliance with Part 212 for the respective air contaminant controlled by the National Emission Standards for Hazardous Air Pollutants (NESHAP) except for those NESHAPs regulating air contaminants on the High Toxicity Air Contaminant (HTAC) list (Part 212-2, Table 2). In this instance, where HTACs are regulated under the NESHAP, the applicant needs to perform a Toxic Impact Assessment (TIA) for the HTAC and demonstrate that the emissions of the HTAC will not cause off-site concentrations that exceed its SGC/AGC and are below its Persistent and Bioaccumulative Trigger (when applicable), as defined under 212-1.2(b)(17). Part 212 allows applicants to demonstrate compliance with paragraph 212-1.5(e)(2) by showing that the actual annual emissions are less than the mass emission limits in 212-2 Table 2.

Since AERMOD was used to demonstrate compliance with Part 212 and since various process operations are also subject to 40 CFR Part 63, Subpart XXXXXX and have the potential to release HTAC(s) above mass emission limit(s) in 212-2 Table 2, a TIA demonstrating that the maximum offsite ambient air concentration is less than respective short-term and annual guideline concentrations (SGC/AGC) for each containment is required.

This air dispersion modeling report (Modeling Report R7) supports the inhalation risk assessment TIA required pursuant to 212-1.5(e)(2), and describes the procedures used to predict maximum offsite ambient air concentrations. Modeling analyses were conducted in accordance with the applicant's modeling protocol dated January 5, 2022 which was later conditionally approved by NYSDEC on January 24, 2022. Where required, modeling was completed for all air contaminants and criteria pollutants released outdoors from equipment subject to Part 212.

Modeling Report R7 has been updated to reflect project final process equipment design and configurations which are subject to Part 212, consistent with the current Air State Facility Permit Application (Application_R4).

Modeled pollutant emission rates and results supporting Marmen's Part 212 Review are provided in Appendices A and B. Per NYSDEC request, additional site-wide modeling analyses for NO_2 and $PM_{2.5}$ have been prepared and are included in Appendix C (see Section 2.6 below for more information). Electronic modeling files will be provided separately, via NYSDEC's secure file transfer (FTP) website.

2. Model Selection and Setup

2.1. Model Selection

Marmen conducted refined air quality dispersion modeling of the facility using the US EPA preferred model, AERMOD (version 22112). Modeling was conducted utilizing the AERMOD graphical user interface (GUI) developed by Lakes Environmental (AERMOD View Version 11.2). AERMOD is a steady-state plume model that provides conservative downwind impacts in the near-field (within 10 kilometers). AERMOD consists of one main program (AERMOD) and two pre-processors (AERMET and AERMAP). AERMET serves to calculate boundary layer parameters for use by AERMOD. AERMAP serves to calculate terrain heights and receptor grids for AERMOD. AERMOD uses terrain, boundary layer and source data to model pollutant transport and dispersion for calculating temporally averaged air pollution concentrations. Among many options, the model estimates maximum and statistically ranked 1-hour, 3-hour, 24-hour, monthly and annual pollutant concentrations across a defined modeling domain and receptor grid.

Source characteristics (e.g., point, area, volume) and exhaust parameter data (maximum emission rates, exhaust diameters, release heights, exhaust exit temperature, exhaust volumetric flow rates, etc.) were incorporated into the analysis, where applicable. Table 2-1 provides a summary of data inputs selected for each process emission source modeled as part of this analysis. Each source included in this analysis was modeled as a "point" source.

Table 2-1: Modeling Data Inputs for Process Emission Sources Subject to Part 212 Review [(1)]

Emission Unit ID	Emission Source/ Control ID	Modeled Source ID	UTM Easting (m)	UTM Northing (m)	Stack Height Above Grade (ft)	Stack Base Elev. (ft)	Stack Exit Dia. (ft)	Exhaust Exit Temp (°F)	Exhaust Exit Velocity (fps)
U-MFR_A		VENT_1A	601335	4717115	92	8	3.03	70	47.3

	MACHINING_A, WELD_A, GRIND_A	VENT_2A	601313	4717165	92	9	3.03	70	47.3
		VENT_3A	601292	4717216	92	9	3.03	70	47.3
		VENT_4A	601273	4717259	73	9	2.37	70	23.6
		VENT_5A	601252	4717308	73	9	2.37	70	23.6
		VENT_6A	601229	4717364	73	9	2.37	70	23.6
U-MFR_B	MACHINING_B, WELD_B, GRIND_B	VENT_1B	601222	4717517	75	9	6.02 *	70	10.4
		VENT_2B	601204	4717509	72	9	6.02 *	70	10.4
		VENT_3B	601186	4717501	69	9	6.02 *	70	10.4
		VENT_4B	601169	4717494	66	9	6.02 *	70	10.4
		VENT_5B	601153	4717487	64	9	6.02 *	70	10.4
		VENT_6B	601134	4717479	61	9	6.02 *	70	10.4
U-PBLST	PBLAST, PBLSTFLTR	STCK_1A	601199	4717337	30	9	4.51 *	75	9.8
U-TBLST	TBLAST, TBLSTFLTR	STCK_1C	601124	4717803	85	8	2.96	75	59.9
U-BOOTH	MANUAL_P1-2, AUTO_P1-2, OVEN_A-D PBTHFLTR_A-D, RTO_1	STCK_2C	601172	4717737	90	9	6.17	115	49.8
U-METAL	METALLIZING, METALFLTR	VENT_4C	601148	4717858	69	8	3.39 *	70	10.2

Table 2-1 Notes:

(1) Modeling data inputs based upon final project design information.

* Rectangular stack (equivalent diameter calculated) where $D_{eq} = 2*\sqrt{(L*W/\pi)}$

2.2. Meteorological Data

A recent five (5) consecutive year period (2016–2020) of pre-processed hourly upper air and surface meteorological data from Albany International Airport (KALB) were utilized for all modeling analyses. Figure 3 shows the KALB meteorological station located approximately 10 miles to the northwest of the proposed Marmen facility.

AERMET processed surface and upper air data from KALB were obtained from NYSDEC and used to account for plume effects due to ambient air temperatures, wind speed and direction, site-specific surface characteristics such as albedo ratio (reflectivity), Bowen ratio (atmospheric stability), and surface roughness (effects of surface friction on atmospheric dispersion). A wind rose of the data collected from January 1, 2016 through December 31, 2020 is presented in Figure

4 showing wind directions predominately out of the south, southeast, and west northwest. Wind speeds varied slightly and tended to be strongest from the west northwest and south.

2.3. Land Use / Land Cover and Terrain

Dispersion coefficients are calculated in AERMOD based on albedo, bowen ratio, and surface roughness length. AERMOD's complex terrain algorithms and AERMAP terrain processor account for effects on dispersion from the actual terrain in the vicinity of the source on a direction-specific basis. AERMOD provides the selection of urban or rural land cover. The rural dispersion option was utilized based on the land use surrounding the facility. National Elevation Dataset (NED) GeoTIFF files provided by United States Geological Survey (USGS) were downloaded from the USGS website to process source, building and receptor elevations using the AERMAP pre-processor. 1 arc-second (approximately 30 meter) resolution terrain data were used for AERMAP processing. A map illustrating AERMAP calculated terrain heights is presented in Figure 5 and shows the facility location situated in a low-lying valley on the western bank of the Hudson River, with elevated terrain to the west and east of the Hudson River.

2.4. Building Downwash

The model incorporates the PRIME downwash algorithms that are part of the AERMOD refined model and utilizes the PRIME plume rise model enhancements to the Building Profile Input Program (BPIPRIM) to provide a detailed analysis of downwash influences on a direction-specific basis. Effects from building downwash were included in the modeling analysis using BPIPRIM.

2.5. Receptor Grid

The receptor grid was established in accordance with NYSDEC DAR-10 guidance. The goal of designing a receptor network is to effectively capture the maximum air quality impacts over a defined area. The horizontal extent of receptor coverage surrounding a facility is usually determined on a case-by-case basis since the area's dispersion characteristics, topography, and meteorological conditions differ from facility to facility. The latest evaluation includes a facility fence line precluding public access, such that onsite receptors are disabled (within the bounds of the fence line). Furthermore, and to ensure that maximum predicted impacts at and beyond the fence line are fully accounted for, the updated analysis includes several areas of "nested receptors" (with receptor spacing of 25 meters) for calculating impacts at and beyond the facility

fence line that are shown to be in cavity regions of structures/buildings and within property boundaries (in areas where public access is not precluded).

Marmen developed a receptor grid which was extended outward 5 kilometers (km) from the center of the facility, with the following receptor spacing:

- 70 meter (m) receptor spacing out to a distance of 1 km,
- 100 m spacing from 1 km to 2 km, and
- 250 m spacing from 2 km to 5 km.

Receptor spacing of 25 m along the facility fence line and were employed to calculate maximum impacts. As noted above, nested receptors with 25 m spacing were also employed within areas outside the fence line that are shown to be in cavity regions of structures/buildings.

Additional discrete receptors were defined at sensitive locations, such as a nearby Environmental Justice community (i.e., Ezra Prentice). Our analysis did not identify any nearby schools or hospitals.

2.6. Special Considerations for the Evaluation of NO_2 and $PM_{2.5}$ Impacts

Per the directive contained in an email dated December 30, 2022 from James E. Hogan (NYSDEC), pursuant to 6 NYCRR 200.6 and in accordance with DAR-10 Guidelines, NYSDEC had requested that potential NO_2 and $PM_{2.5}$ impacts from exempt sources be evaluated as part of a site-wide modeling analysis for direct comparison to the NAAQS. Exempt sources in these site-wide evaluations include sources otherwise excepted from, and/or not subject to, Part 212 Review (i.e., process emission sources with respect to emissions of NO_X produced by thermal oxidizers used as air pollution control equipment [6 NYCRR 212-1.4(r)], combustion installations [6 NYCRR 212-1.2(18)]). Furthermore, NYSDEC requested that the site-wide modeling evaluations include sources exempt from air permitting (i.e., natural gas-fired boilers and water heaters with maximum rated heat input capacities less than 10 million Btu/hr each [6 NYCRR 201-3.2(c)(1)(i)], emergency generators and fire pumps [6 NYCRR 201-3.2(c)(6)]).

NYSDEC agreed to allow Marmen to exclude "intermittent" sources (i.e., emergency generators and fire pumps) from the modeling analyses supporting the short-term (i.e., 1-hour NO_2 and 24-hour $PM_{2.5}$ NAAQS) compliance demonstrations. However, these sources (emergency generators

and fire pumps) were included in the modeling analyses supporting the annual NO_2 and annual $PM_{2.5}$ NAAQS compliance demonstrations.

For NO_2, a two-tiered approach was used to compare NO_2 concentrations to the NAAQS. The Tier 1 regulatory default option, which conservatively assumes full conversion of the NO_X species to NO_2 (i.e., in-stack ratio of 1:1 NO_2 to NO_X), was employed for the Part 212 compliance demonstration. However, Tier 2 modeling using the Ambient Ratio Method 2 (ARM2) was employed for the project's site-wide NO_2 modeling.

Tier 2 modeling using ARM2 assumes ambient equilibrium between NO and NO_2. AERMOD multiplies Tier 1 impacts with default ambient ratios, or source-specific NO_2/NO_X in-stack ratio (ISR) data. The national default minimum and maximum ambient ratios (0.5 and 0.9) was used for the facility.

For comparison to the 1-hour and annual NO_2 National Ambient Air Quality Standards (NAAQS), seasonal background NO_2 values were entered into AERMOD and incorporated into model predicted 1-hour and annual NO_2 impacts.

2.7. Special Considerations for the Evaluation of Lead Impacts

For Lead, AERMOD was set up to calculate monthly average Lead concentrations at each receptor and along the property line. However, the NAAQS for Lead is 0.15 micrograms per cubic meter ($\mu g/m^3$) based on the rolling 3-month average lead concentration.

At this time, AERMOD does not calculate design values for the lead NAAQS (rolling 3-month averages). US EPA developed the post-processing tool, "LEADPOST", to calculate design values from monthly AERMOD output. This tool calculates and outputs the rolling cumulative (all sources) 3-month average concentration at each modeled receptor with source group contributions and the maximum cumulative (all sources) rolling 3-month average concentration by receptor. LEADPOST is supported in the Lakes Environmental software and was used to calculate the maximum 3-month average rolling Lead concentration for this analysis.

3. 212-2.3 Table 3 Compliance Demonstration (Criteria Air Contaminants)

Criteria air contaminants emitted from a process emission source must meet air cleaning requirements of 212-2.3 Table 3, except for those sources subject to New Source Performance

Standards (NSPS). Process emission sources regulated by a federal NSPS are considered to be in compliance with Part 212 for the respective air contaminant being regulated. Since none of the process emission sources at the facility are subject to NSPS, the applicant must demonstrate compliance according to requirements of 212-2.3 Table 3 and in accordance with procedures set forth in NYSDEC's DAR-1 guidance.

Modeled emission rates for each criteria air contaminant were calculated based on each source's Potential-To-Emit (PTE), consistent with information presented in the applicant's Air State Facility Permit Application (Application_R4). Appendix A provides a detailed breakdown of individual source parameters, including modeled emission rates, which were used for the evaluation of criteria air contaminants for each process emission source included under the Part 212 Review.

In evaluating impacts from each criteria air contaminant, maximum ambient impacts of the air contaminant were compared to the NAAQS, where the model predicted impact was combined with background concentrations based on available data from air quality monitoring stations. Table 3-1 provides the background monitoring stations that were used to demonstrate compliance with the NAAQS.

Table 3-1: Background Monitoring Stations

Pollutant	Selected Metric for Short-Term Averaging Time	Monitoring Station	County	State	Station ID	Distance from Facility
NO_2	1-hr 98th Percentile	Westover AFB/Chicopee (1)	Hampden	MA	25-013-0008	68 Miles
PM_{10}	H2H 24-hr Average	Mohawk Mt-Cornwall (2)	Litchfield	CT	09-005-0005	59 Miles
$PM_{2.5}$	24-hr 98th Percentile	Albany Co. HD (FEM)	Albany	NY	36-001-0005	2.7 Miles
Pb	H1H Rolling 3-month Average	Palmerton (3)	Lehigh	PA	42-025-0217	156 Miles

Table 3-1 Notes:

(1) Per Mr. John Kent (NYSDEC), there are no NO_2 monitoring stations in the Albany, NY area. The nearest NO_2 monitoring station is Chicopee, MA, which is reasonably representative of background air quality near the Marmen facility. Mr. John Kent had also indicated the Chicopee, MA monitoring station has been referenced for other modeling projects in the Albany, NY area.

(2) Background data for PM_{10} not available for the Albany, NY area. The nearest available background monitoring data for PM_{10} is from Cornwall, CT, a rural location. Data from Cornwall, CT is reasonably representative of background air quality near the Marmen facility and was used for this modeling analysis.

(3) Background data for Pb not available for the Albany, NY area or anywhere in New York State. The nearest available background monitoring data for Pb is from Palmerton, PA, a rural location. Data from Palmerton, PA is reasonably representative of background air quality near the Marmen facility and was used for this modeling analysis.

Table 3-2 presents criteria air contaminants, applicable NAAQS, averaging period, and design value form which were evaluated under the Part 212 Review:

Table 3-2: NAAQS

Criteria Pollutant	Averaging Period	NAAQS ($\mu g/m^3$)	Design Value Form
NO_2	1-hour	188	H8H of the 98th percentile of the annual distribution of maximum daily 1-hour concentrations averaged across five years
	Annual	100	H1H annual average concentration, each year analyzed separately
PM_{10}	24-hour	150	H1H concentration for the five years modeled
$PM_{2.5}$	24-hour	35	H8H of the 98th percentile of the annual distribution of 24-hour concentrations averaged over 5 years
	Annual	12	Annual mean concentration averaged over five years
Pb	Rolling 3-Month	0.15	H1H rolling 3-month average concentration over five years

Modeling results from the facility were added to background concentrations to complete the NAAQS analysis. Modeling results for criteria air contaminant impacts are summarized in Appendix A, which show compliance with each respective NAAQS. Supporting modeling files have been provided separately, via NYSDEC's secure file transfer (FTP) website.

4. 212-2.3 Table 4 Compliance Demonstration (Non-Criteria Air Contaminants)

A health effects analysis was completed for non-criteria air contaminants, including speciated volatile organic compounds (VOC) and speciated condensable and filterable particulate matter. Non-criteria air contaminants emitted from a process emission source must meet air cleaning requirements of 212-2.3 Table 4, except where sources subject to a federal NESHAP with actual facility-wide yearly emissions for any HTAC are less than applicable mass emission limits of 212-2 Table 2.

An evaluation of non-criteria air contaminant impacts from each process source, as well as combined facility-wide impacts (from all Part 212 process sources from which the non-criteria air contaminant is released) was performed using Lakes Environmental's "Multi-Chemical" utility software (Multi-Chem). Per the Lakes Environmental technical support team, a brief explanation as to how Multi-Chem generally works is provided below:

> "*Multi-Chem works by utilizing AERMOD's native summation concept with a unit emission scheme that is inherent to Gaussian plume models. In Multi-Chem, every source is executed in its own unique model run using a unitized emission rate (1 gram per second). Each run produces a 1-hour average POSTFILE meaning that results at every receptor from every time-step are included in this file. These hourly results are scaled by the user-defined emission rate for each chemical. The summation concept is then applied wherein the impacts from each source are combined in time and space (i.e., at each receptor for each hour). Multi-Chem then produces contour plot files detailing the concentrations. Calculation of longer period averages is done according to the same code that AERMOD uses.*
>
> *There are limitations to use of Multi-Chem, and these are enumerated in the 'Information' tab of the Multi-Chem utility dialog. For example, variable emissions can be used but not in combination with hourly emission files, some receptor types are not allowed, and the process does not produce traditional AERMOD input (ADI) and output (ADO) files that show all combined sources. Instead, you have what is described above which is source-specific, unitized emission rate ADI & ADO files. These are included in the aforementioned .MC sub-folder along with the 1-hour average POSTFILEs.*"

Contingent with its approval for the use of, and in effort to independently validate results of Multi-Chem, NYSDEC had requested Marmen to individually model the following select group of ten (10) non-criteria air contaminants:

- Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidylester and bisphenol A-(epichlorhydrin) epoxy resin (CAS No.: CBI)
- 2,4,6-tris(Dimethylaminomethyl)phenol (CAS No.: 90-72-2)
- Nepheline syenite (CAS No.: 37244-96-5)
- Fatty acids, c18-unsatd., dimers, polymers with triethylenetetramine, reaction products with poly (bisphenol a diglycidyl ether) (CAS No.: 68424-41-9)
- Methylstyrenated phenol (CAS No.: 68512-30-1)
- Polymer of: triethylenetetramine, polyaminoamide and bisphenol A-(epichlorhydrin) epoxy resin (CAS No.: CBI)
- bis[(Dimethylamino)methyl]phenol (CAS No.: 71074-89-0)
- Nickel (CAS No.: 7440-02-0)
- Manganese (CAS No.: 7439-96-5)
- Cadmium (CAS No.: 7440-43-9)

Modeled emission rates for each non-criteria air contaminant were calculated based on each source's PTE, consistent with information presented in the applicant's Air State Facility Permit Application (Application_R4). Appendix B provides a detailed breakdown of individual source parameters, including modeled emission rates, which were used for the evaluation of non-criteria air contaminants for each process emission source included under the Part 212 Review.

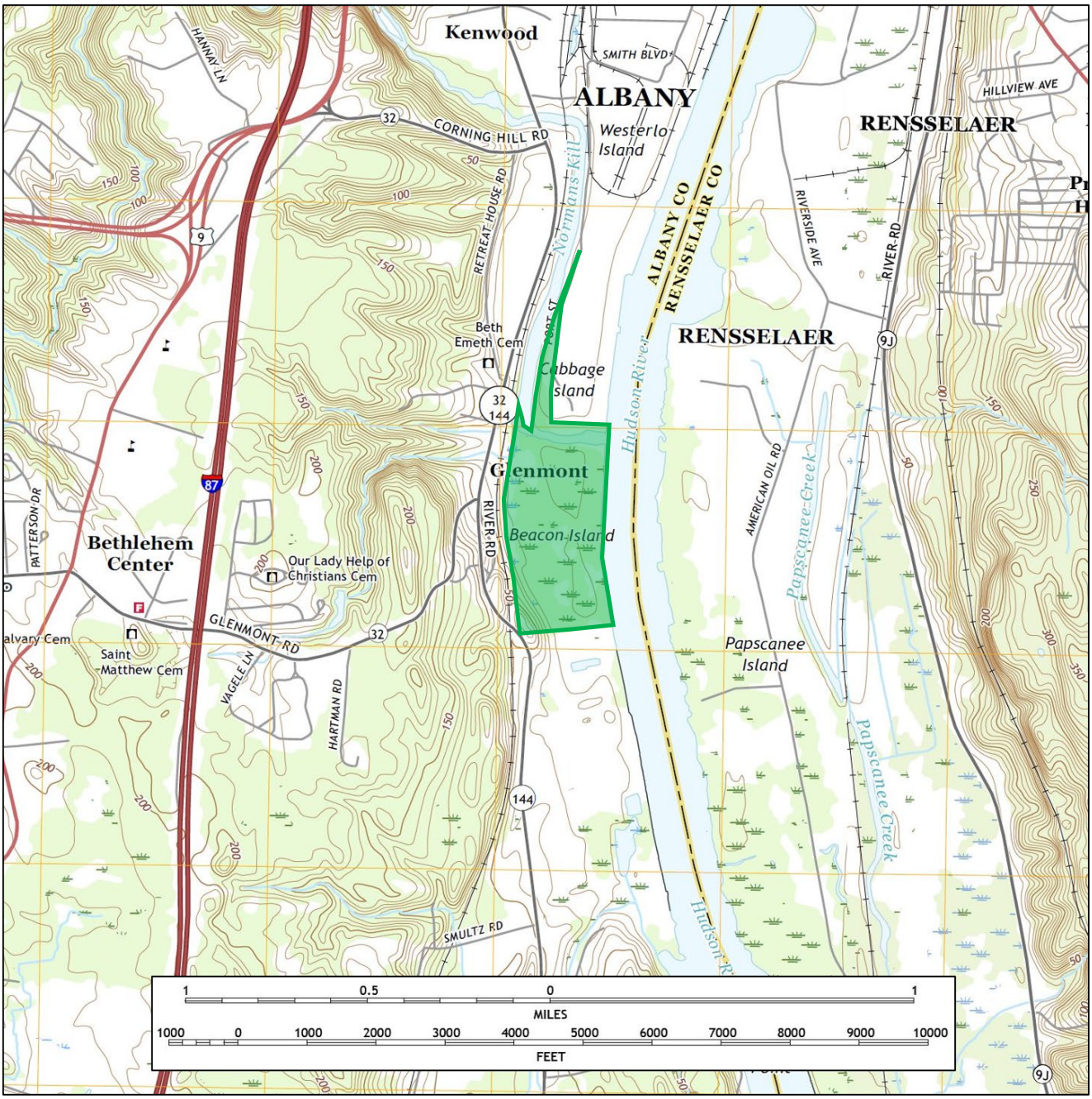
Model predicted maximum ground level concentrations for each non-criteria air contaminant were directly compared to NYSDEC SGC/AGC. Modeling results for non-criteria air contaminant impacts are summarized in Appendix B. Non-criteria air contaminant modeling results show compliance with all applicable DAR-1 requirements. Pertinent supporting modeling files have been provided separately, via NYSDEC's secure file transfer (FTP) website.

5. 200.6 Site-Wide NO_2 and $PM_{2.5}$ NAAQS Compliance Demonstrations

In addition to the Part 212 analyses, site-wide NO_2 and $PM_{2.5}$ NAAQS compliance demonstrations were performed for the project. Modeling Report R7 Appendix C provides tables listing emission parameters for all emission points (point sources) included in the site-wide modeling. This includes the location, stack height above grade, stack base elevation, exit diameter, exit velocity

and exit temperature. Emissions data (potential emission rates as well as modeled emission rates) for all applicable averaging times are provided. Any restrictions or claimed air cleaning/control efficiencies for which modeled emission rates are based are presented in the tables. Modeling Report R7 Appendix C provides a detailed breakdown of individual source parameters, modeled emission rates and results.

Modeling Report R7 – Figures



QUADRANGLE LOCATION

SOURCE:
USGS; 2019, Delmar, East Greenbush, NY
7.5 Minute Topographic Quadrangle

TITLE:

SITE LOCATION MAP

PREPARED FOR:

Marmen, Inc.

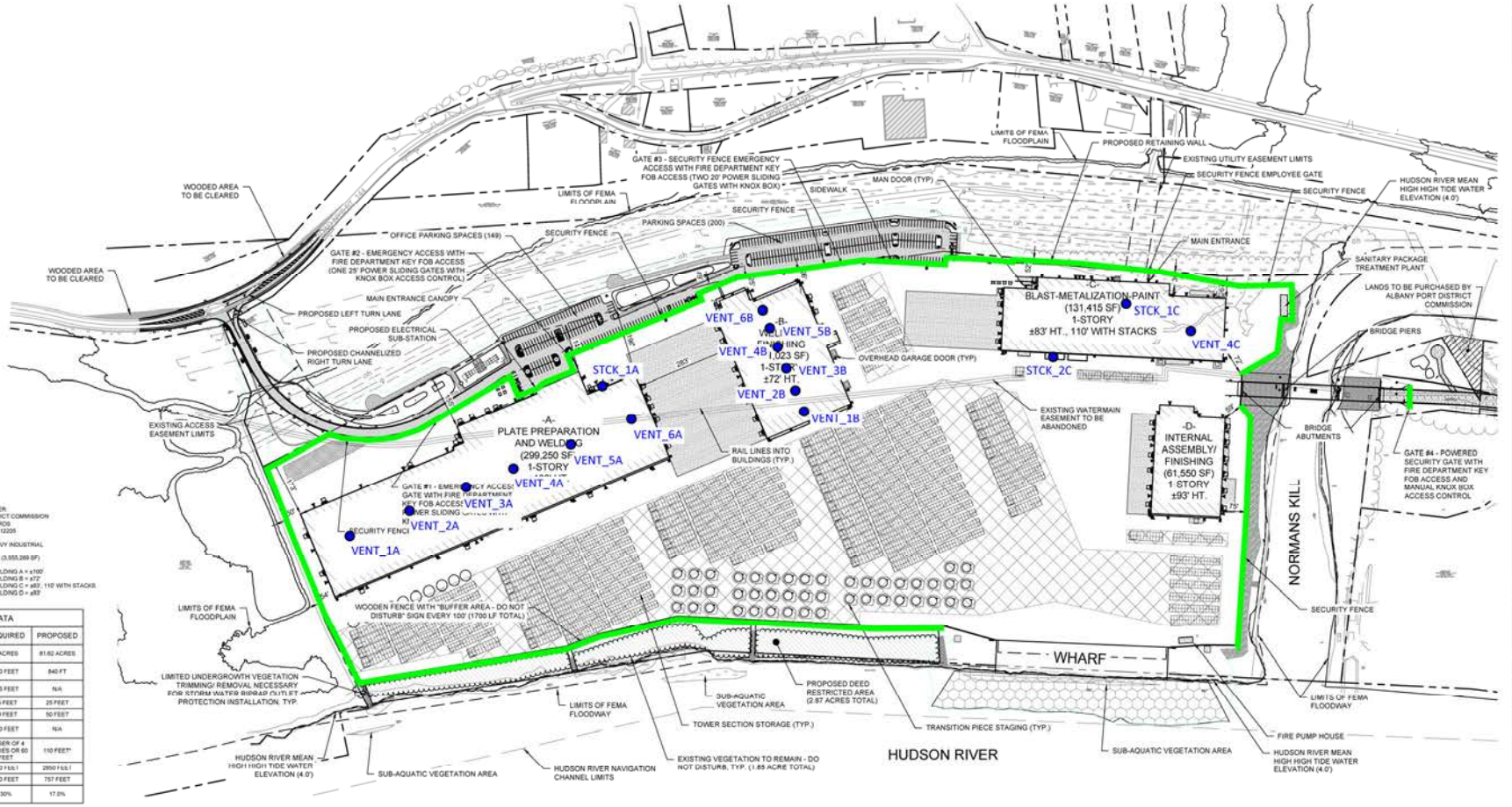
Port of Albany Wind Tower Manufacturing Facility

PROACTIVE Environmental Solutions

PROJECT NO.:	MARMEN, INC.
PREPARED BY:	C.G.
DATE:	2021-12-28

FIGURE

1



PROJECT DATA

1. APPLICANT / LAND OWNER
   ALBANY PORT DISTRICT COMMISSION
   106 SMITH BOULEVARDS
   ALBANY, NEW YORK 12205
2. EXISTING ZONING: HEAVY INDUSTRIAL
3. LOT AREA: 81.62 ACRES (3,555,289 SF)
4. BUILDING HEIGHT: - BUILDING A = ±100'
   - BUILDING B = ±72'
   - BUILDING C = ±83', 110' WITH STACKS
   - BUILDING D = ±93'

SITE DATA		
FEATURE	REQUIRED	PROPOSED
MINIMUM LOT SIZE, NONRESIDENTIAL	5 ACRES	81.62 ACRES
MINIMUM FRONT YARD, FROM RIGHT-OF-WAY	100 FEET	840 FT
MINIMUM FRONT YARD, FROM CENTER LINE	125 FEET	N/A
MINIMUM SIDE YARD	25 FEET	25 FEET
MINIMUM REAR YARD	50 FEET	50 FEET
MINIMUM HIGHWAY FRONTAGE	150 FEET	N/A
MAXIMUM HEIGHT	LESSER OF 4 STORIES OR 60 FEET	110 FEET*
MINIMUM LOT DEPTH	200 FEET	2650 FEET
MINIMUM LOT WIDTH	150 FEET	757 FEET
MAXIMUM LOT COVERAGE	30%	17.0%

* WILL REQUEST A VARIANCE

ZONING:

EXISTING: ±81.62 ACRES HEAVY INDUSTRIAL

PROPOSED: ±81.62 ACRES HEAVY INDUSTRIAL

TAX ACCOUNT NUMBERS: 98.00-2-10.23
98.01-2-1

* ENTIRE SITE IS WITHIN 100-YR FLOODPLAIN

PARKING:

1 SPACE FOR EACH 2 EMPLOYEES ON MAXIMUM WORKING SHIFT.

TOTAL EMPLOYEES = 550

REQUIRED:
275 TOTAL SPACES REQUIRED

PROVIDED:
THE LARGEST SHIFT INCLUDES 180 EMPLOYEES WITH THE LARGEST SHIFT CHANGE INVOLVING 320 EMPLOYEES. INDIVIDUAL BUILDING PARKING DEMANDS FROM MARMEN WELDCON HAVE BEEN PROVIDED BELOW:

BUILDING A = 168 SPACES
BUILDING B = 87 SPACES
BUILDING C & D = 100 SPACES TOTAL
TOTAL OPERATOR REQUESTED SPACES = 355

349 TOTAL SPACES PROVIDED

ADA SPACES REQUIRED:
PER 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

REQUIRED (349 SPACE LOT): 8 SPACES (6 STANDARD & 2 VAN)
FOR TOTAL PARKING 301-400 SPACES

PROVIDED (349 SPACE LOT): 9 SPACES (7 STANDARD & 2 VAN)

LEGEND

- PROPERTY LINE
- EASEMENT LIMITS
- DITCH CENTERLINE
- ROADSIDE SWALE
- BUILDING SETBACK
- OVERHEAD DOORS
- MAN DOORS
- EXISTING BUILDING
- Point Source/Emission Point (Approximate Location)
- Site Security Fencing (~ 8 feet tall)
- PROPOSED BUILDING FOOTPRINT
- MATERIAL STORAGE AREAS
- WETLAND AREA
- WHARF DREDGING AREA
- PAVEMENT AREA
- CONCRETE AREA
- RIP-RAP WATER EMBANKMENT STABILIZATION
- PROPOSED DEED RESTRICTED AREA

0 150 300 450 FT
SCALE

McFarland Johnson
60 RAILROAD PLACE
SUITE 402
SARATOGA SPRINGS, NEW YORK 12866
P:518-580-9380 F:518-580-9383
SaratogaROM@mjinc.com

PROJECT MILESTONE
FINAL DESIGN PLANS

NO.	DATE	DESCRIPTION
2	06/08/22	TOWN COMMENTS
3	06/17/22	TOWN COMMENTS

CLIENT: ALBANY PORT DISTRICT COMMISSION
ALBANY, NEW YORK
PROJECT: PORT OF ALBANY EXPANSION SITE

DRAWN	JES
DESIGNED	NSO
CHECKED	AJF
SCALE	AS SHOWN
DATE	05/10/2022
PROJECT	18641.00

STATE OF NEW YORK
ADAM J. FROST
098870
LICENSED PROFESSIONAL ENGINEER

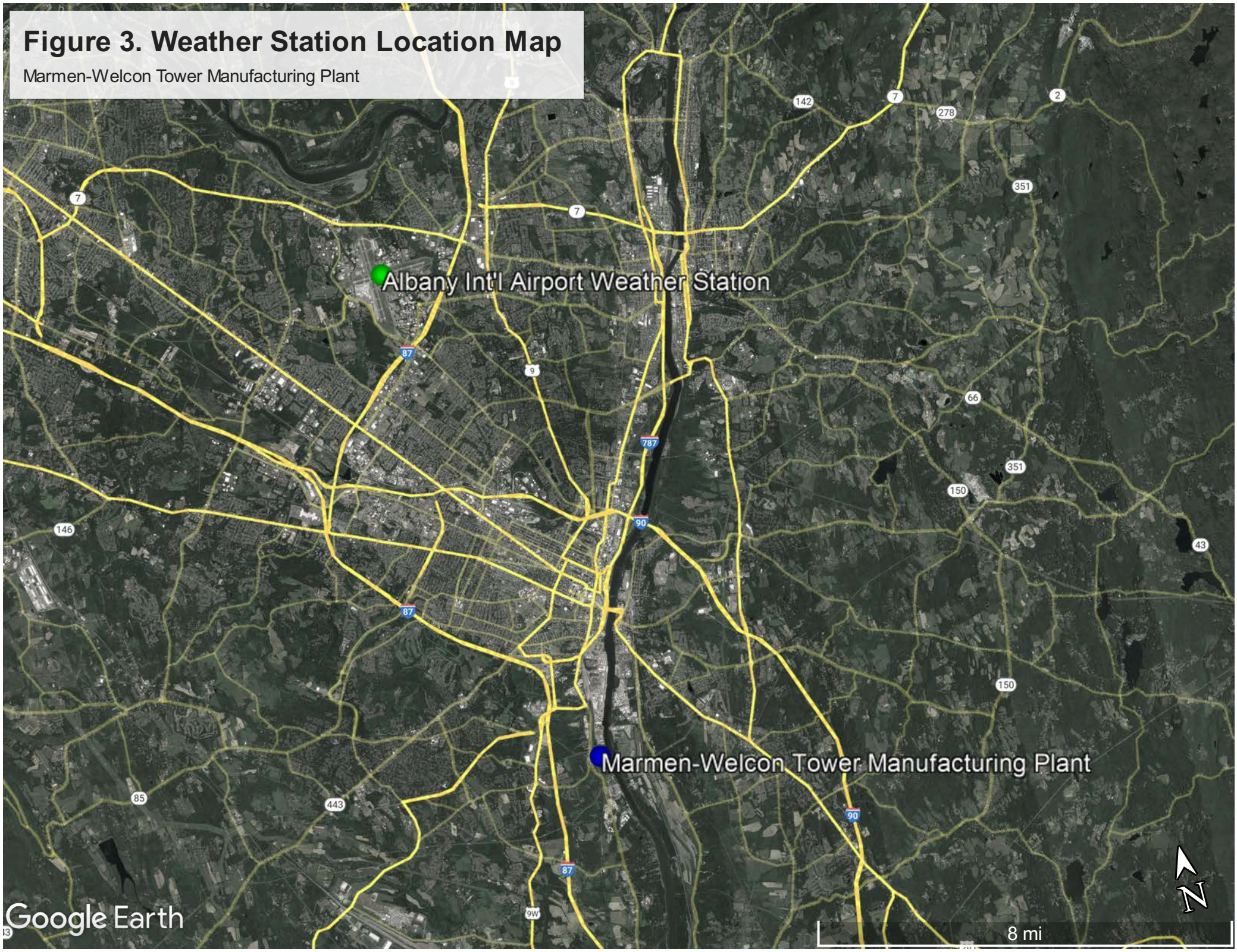
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECT DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

DRAWING TITLE
SITE PLAN OVERALL

DRAWING NUMBER
FIGURE 2

Figure 3. Weather Station Location Map

Marmen-Welcon Tower Manufacturing Plant

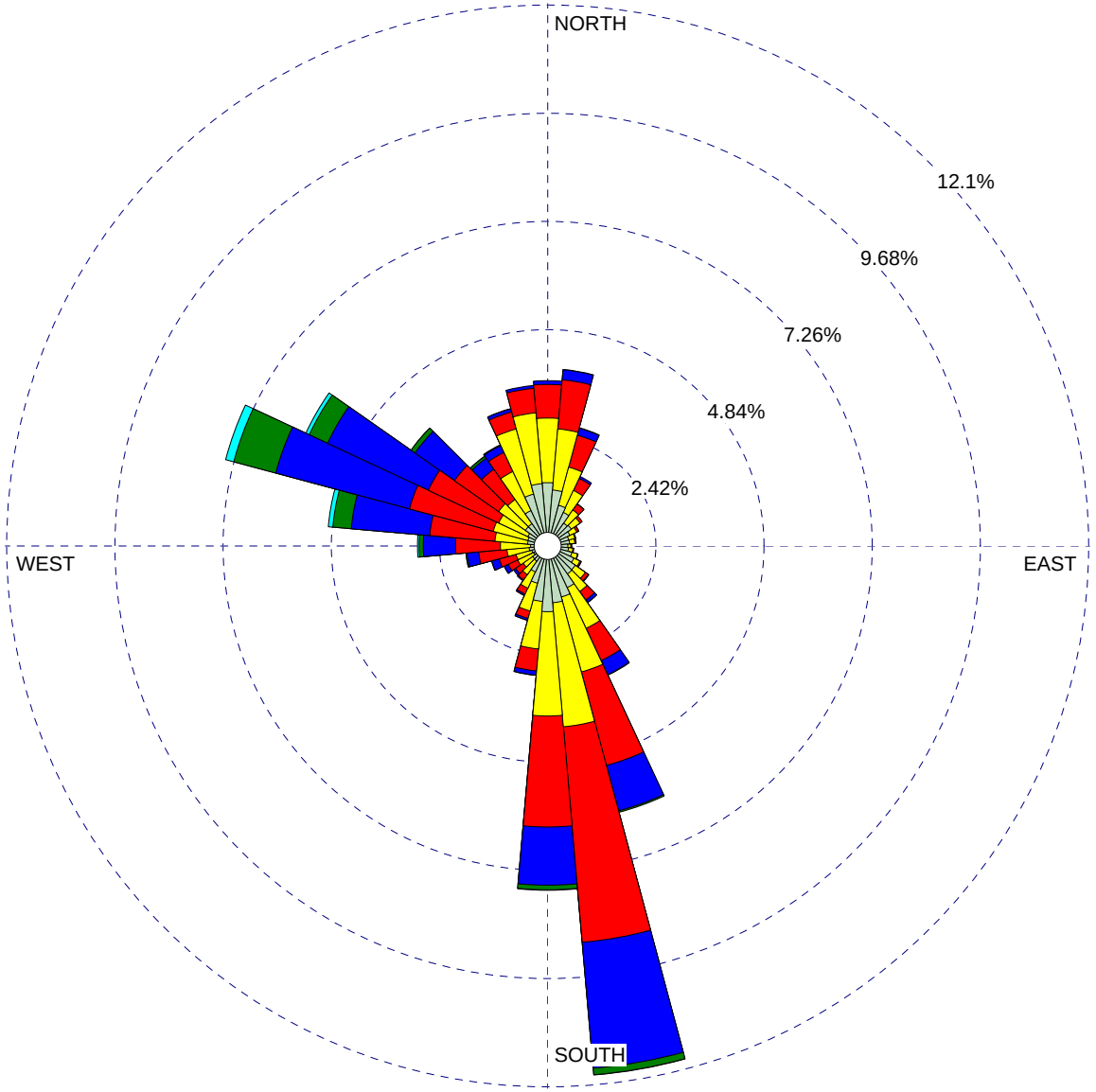


WIND ROSE PLOT:

Figure 4. Wind Rose - Albany International Airport (2016-2020)
Marmen-Welcon Tower Manufacturing Plant

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:

Met data from Albany Int'l Airport was obtained from NYSDEC. Per John Kent (NYSDEC) email dated October 8, 2021, meteorological data was processed before the latest version of AERMET was released. However, NYSDEC staff determined that the changes to AERMET would not have any effect on the data sets, so this data set is acceptable for use.

DATA PERIOD:

Start Date: 1/1/2016 - 00:00
End Date: 12/31/2020 - 23:59

TOTAL COUNT:	CALM WINDS:
43788 hrs.	**0.80%**

AVG. WIND SPEED:

7.30 Knots

COMPANY NAME:

Proactive Environmental Solutions, LLC

MODELER:

Chris Geraghty, CCM

DATE:

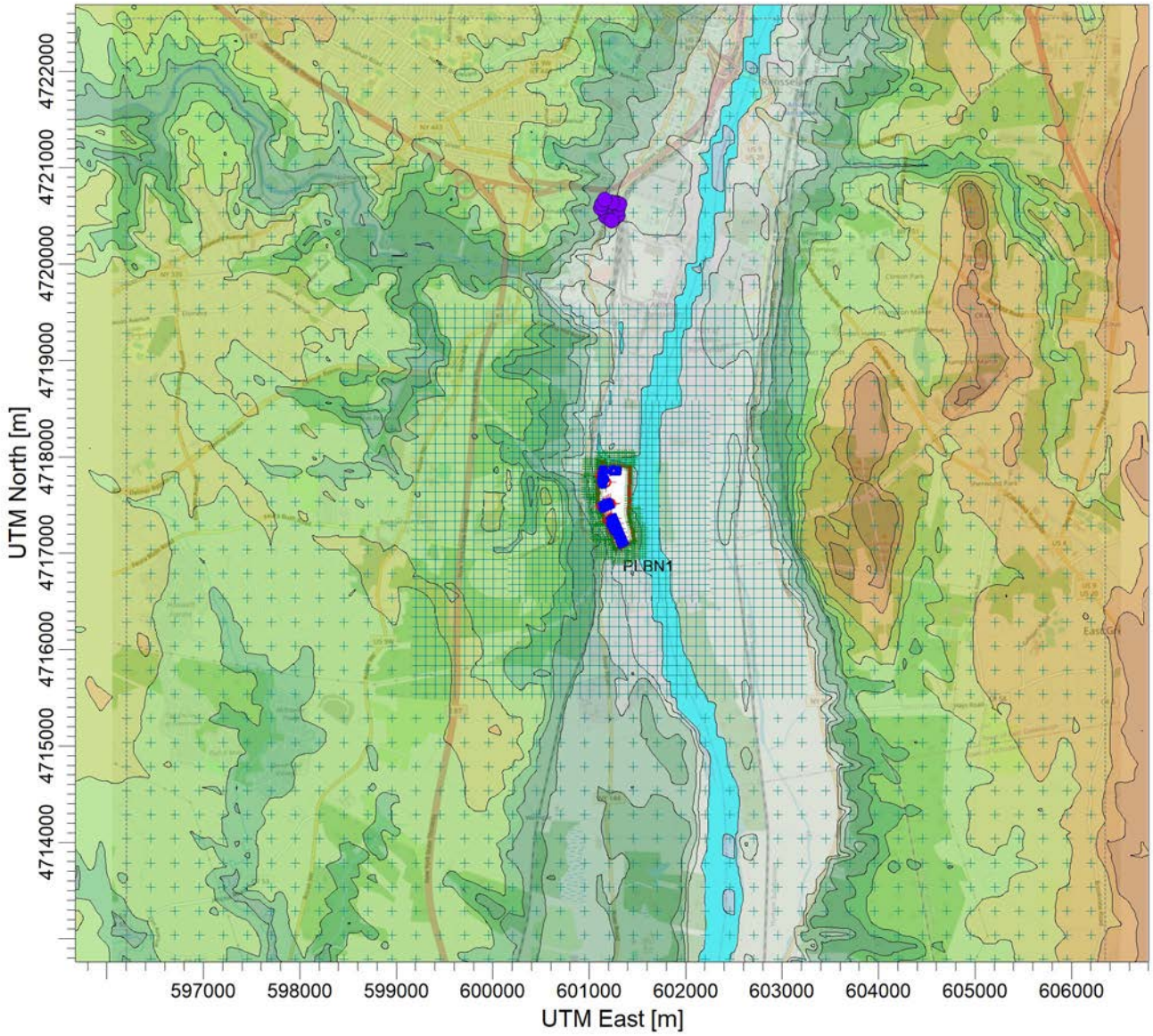
2/20/2022

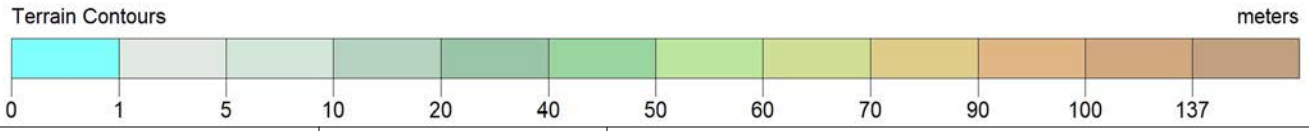
PROJECT NO.:

Marmen-Welcon

PROJECT TITLE:

Figure 5. Terrain Contour Plot
Marmen-Welcon Tower Manufacturing Plant - Modeling Report R7





COMMENTS:	SOURCES: **16**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	
		SCALE: 1:70,000 0 2 km	
		DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

Modeling Report R7 – Appendix A

Part 212 Review – Point Source Modeled Criteria Air Contaminant Emission Rates and Results Summaries

PROACTIVE ENVIRONMENTAL SOLUTIONS
WWW.PRO-ENVIRO.COM

Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 212 Process Operations
Part 212 Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Point Source Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	Assigned Env. Rating (ER)	Emission Rate Potential (ERP) (lb/hr)	Air Cleaning Requirements of Table 3 of 212-2.3	Required Minimum Control Efficiency (%) [Table 3 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr) (1)	Modeled Hourly Emission Rate (lb/hr) (1)	Proposed Allowable Annual Emissions (lbs/yr) (1)	Modeled Annual Emission Rate (lb/hr) (1)
U-MFR_A	See Note 2	VNT1A - VNT6A	VENT_1A - VENT_6A	6	NO_X	NY210-00-0	B	4.89	Comply w/ NESHAP, NAAQS	0%	4.89	0.816	42871	0.816 (annual avg)
U-MFR_A	See Note 2	VNT1A - VNT6A	VENT_1A - VENT_6A	6	CO	630-08-0	Process emission sources with CO emissions produced attributable solely to incomplete combustion of any fuel are excepted per 212-1.4(m)							
U-MFR_A	See Note 2	VNT1A - VNT6A	VENT_1A - VENT_6A	6	SO_2	7446-09-5	Process emission sources with emissions of SO_X, only with respect to oxides of sulfur emissions attributable solely to sulfur in fuel are excepted per 212-1.4(i)							
U-MFR_A	See Note 2	VNT1A - VNT6A	VENT_1A - VENT_6A	6	PM_{10}	NY075-00-5	A	1.65	Comply w/ NESHAP, NAAQS	99%	1.65E-02	2.75E-03 (24-hr avg)	145	--
U-MFR_A	See Note 2	VNT1A - VNT6A	VENT_1A - VENT_6A	6	$PM_{2.5}$	NY750-02-5	A	1.65	Comply w/ NESHAP, NAAQS	99%	1.65E-02	2.75E-03 (24-hr avg)	145	2.75E-03 (annual avg)
U-MFR_A	See Note 2	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Pb	7439-92-1	A	2.45E-05	Comply w/ NESHAP	0	2.45E-05	4.08E-06	0.214	--
U-MFR_B	See Note 3	VNT1B - VNT6B	VENT_1B - VENT_6B	6	NO_X	NY210-00-0	B	1.49	Comply w/ NESHAP, NAAQS	0%	1.49	0.248	13028	0.248 (annual avg)
U-MFR_B	See Note 3	VNT1B - VNT6B	VENT_1B - VENT_6B	6	CO	630-08-0	Process emission sources with CO emissions produced attributable solely to incomplete combustion of any fuel are excepted per 212-1.4(m)							
U-MFR_B	See Note 3	VNT1B - VNT6B	VENT_1B - VENT_6B	6	SO_2	7446-09-5	Process emission sources with emissions of SO_X, only with respect to oxides of sulfur emissions attributable solely to sulfur in fuel are excepted per 212-1.4(i)							
U-MFR_B	See Note 3	VNT1B - VNT6B	VENT_1B - VENT_6B	6	PM_{10}	NY075-00-5	A	1.39	Comply w/ NESHAP, NAAQS	99%	1.39E-02	2.32E-03 (24-hr avg)	122	--
U-MFR_B	See Note 3	VNT1B - VNT6B	VENT_1B - VENT_6B	6	$PM_{2.5}$	NY750-02-5	A	1.39	Comply w/ NESHAP, NAAQS	99%	1.39E-02	2.32E-03 (24-hr avg)	122	2.32E-03 (annual avg)
U-MFR_B	See Note 3	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Pb	7439-92-1	A	7.44E-06	Comply w/ NESHAP	0	7.44E-06	1.24E-06	6.51E-02	--
U-PBLST	PBLAST	0001A	STCK_1A	1	PM_{10}	NY075-00-5	A	30.0	99%	99%	0.300	0.300 (24-hr avg)	2628	--
U-PBLST	PBLAST	0001A	STCK_1A	1	$PM_{2.5}$	NY750-02-5	A	30.0	99%	99%	0.300	0.300 (24-hr avg)	2628	0.300 (annual avg)
U-TBLST	TBLAST	0001C	STCK_1C	1	PM_{10}	NY075-00-5	A	17.5	99%	99%	0.175	0.175 (24-hr avg)	1533	--
U-TBLST	TBLAST	0001C	STCK_1C	1	$PM_{2.5}$	NY750-02-5	A	4.55	99%	99%	4.55E-02	4.55E-02 (24-hr avg)	399	4.55E-02 (annual avg)
U-BOOTH	RTO_1	0002C	STCK_2C	1	NO_X	NY210-00-0	NO_X emissions from thermal oxidizer used as control equipment excepted per 212-1.4(r)							

Point Source Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	Assigned Env. Rating (ER)	Emission Rate Potential (ERP) (lb/hr)	Air Cleaning Requirements of Table 3 of 212-2.3	Required Minimum Control Efficiency (%) [Table 3 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr) (1)	Modeled Hourly Emission Rate (lb/hr) (1)	Proposed Allowable Annual Emissions (lbs/yr) (1)	Modeled Annual Emission Rate (lb/hr) (1)
U-BOOTH	RTO_1	0002C	STCK_2C	1	CO	630-08-0	Process emission sources with CO emissions produced attributable solely to incomplete combustion of any fuel are excepted per 212-1.4(m)							
U-BOOTH	RTO_1	0002C	STCK_2C	1	SO_2	7446-09-5	Process emission sources with emissions of SO_x, only with respect to oxides of sulfur emissions attributable solely to sulfur in fuel are excepted per 212-1.4(i)							
U-BOOTH	See Note 4	0002C	STCK_2C	1	PM_{10} (6)	NY075-00-5	A	222	99%	99%	2.28	2.28 (24-hr avg *)	3975	--
U-BOOTH	See Note 4	0002C	STCK_2C	1	$PM_{2.5}$ (6)	NY750-02-5	A	214	99%	99%	2.19	2.19 (24-hr avg *)	3847	0.439 (annual avg)
U-BOOTH	See Note 4	0002C	STCK_2C	1	Pb (6)	7439-92-1	A	1.44E-03	Meet NAAQS	0%	1.44E-03	1.44E-03	0.563	--
U-METAL	See Note 5	VNT4C	VNT4C	1	PM_{10}	NY075-00-5	A	161	99%	99%	1.61E-02	1.61E-02 (24-hr avg)	141	--
U-METAL	See Note 5	VNT4C	VNT4C	1	$PM_{2.5}$	NY750-02-5	A	155	99%	99%	1.55E-02	1.55E-02 (24-hr avg)	136	1.55E-02 (annual avg)
U-METAL	See Note 5	VNT4C	VNT4C	1	Pb	7439-92-1	A	2.35E-03	Meet NAAQS	0%	2.35E-07	2.35E-07	2.06E-03	--

Notes:

(1) Modeled Emission Rate represents the potential emission rate per emission point/stack. For example, for a process emission source with three (3) emission points, the potential emissions from the process are divided by 3 for purposes of air dispersion modeling.

(2) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: MACHINING_A, WELD_A, GRIND_A. U-MFR_A (Building A ventilation system) fabric filter control efficiency = 99%.

(3) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: MACHINING_B, WELD_B, GRIND_B. U-MFR_B (Building B ventilation system) fabric filter control efficiency = 99%.

(4) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: MANUAL_P1-2, AUTO_P1-2, PBTHFLTR_A-D, OVEN_A-D, RTO_1. U-BOOTH VOC control efficiency = 95%. U-BOOTH fabric filter control efficiency = 99%.

(5) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: METALLIZING, METALFLTR. U-METAL dust collector fabric filter control efficiency = 99%. In addition, Building C ventilation system's VENT 4C (VNT4C) will be equipped with a fabric filter achieving 99% of particulates from metallization activities. Thus, the overall control efficiency of the staged filtration system will be 99.99%.

(6) Air contaminant proposed allowable and modeled emission rates include contributions from the process emission source (surface coating) as well as the combustion-related emissions from the control device (recuperative thermal oxidizer) due to the combustion of natural gas.

* U-BOOTH 24-Hour average emission rate based on a maximum 24 hours operation per day at maximum allowable hourly emission rates (24-hour concurrent operations from Large and Small Paint Booths).

Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 212 Process Operations
Part 212 Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Summary of Maximum Predicted Criteria Air Contaminant Impacts at/or Beyond Fence Line

Air Pollutant	Averaging Period	Background ($\mu g/m^3$)	Model Results ($\mu g/m^3$)	Total ($\mu g/m^3$)	Pollutant NAAQS ($\mu g/m^3$)	Percent of Standard
NO_2 (1)	1-hr	Seasonal (2)	129.0	129.0	188.0	68.64%
NO_2	Annual	Seasonal (2)	38.0	38.0	100.0	38.04%
PM_{10}	24-hr	61.4 (3)	16.7	78.1	150.0	52.07%
$PM_{2.5}$ (1)	24-hr	21.0 (4)	6.3	27.3	35.0	77.89%
$PM_{2.5}$	Annual	8.00 (4)	1.25	9.25	12.0	77.07%
Pb	Rolling 3-month	0.071 (5)	1.83E-03	7.28E-02	0.15	48.55%

Table Notes:

(1) H8H value averaged over 5-years of meteorological data.

(2) Seasonal background NO_2 concentrations (seasonal hour of day NO_2 background data) from Chicopee, MA (Station ID 25-013-0008) were incorporated into the modeling results. NO_2 data from December 2017 to November 2020, and processed them to the type of "seasonal hour of day" data. For each season, three consecutive months of data were used. This data was obtained from NYSDEC.

(3) Background 24-hour PM_{10} concentration based upon maximum 24-hour values recorded at Mohawk Mt-Cornwall, CT (Station ID 09-005-0005) in 2020.

(4) Background 24-hour $PM_{2.5}$ concentration based upon the 2018-2020 average of the 98th percentile 24-hour $PM_{2.5}$ values recorded at Albany Co. HD, NY (Station ID 36-001-0005). Background annual mean $PM_{2.5}$ concentration based upon the 2018-2020 annual mean $PM_{2.5}$ values.

(5) Background Lead concentration based upon H1H Rolling 3-month average concentration recorded at Palmerton, PA (Station ID 42-025-0217) in 2020.

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Part 212 Compliance Demonstration
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Summary of Maximum Predicted Criteria Air Contaminant Impacts at Ezra Prentice (EJ Community)

Air Pollutant	Averaging Period	Background ($\mu g/m^3$)	Model Results ($\mu g/m^3$)	Total ($\mu g/m^3$)	Pollutant NAAQS ($\mu g/m^3$)	Percent of Standard
NO_2 (1)	1-hr	Seasonal (2)	66.4	66.4	188.0	35.33%
NO_2	Annual	Seasonal (2)	32.7	32.7	100.0	32.70%
PM_{10}	24-hr	61.4 (3)	0.46	61.9	150.0	41.24%
$PM_{2.5}$ (1)	24-hr	21.0 (4)	0.24	21.2	35.0	60.68%
$PM_{2.5}$	Annual	8.00 (4)	0.03	8.04	12.0	66.97%
Pb	Rolling 3-month	0.071 (5)	3.00E-05	7.10E-02	0.15	47.35%

Table Notes:

(1) H8H value averaged over 5-years of meteorological data.

(2) Seasonal background NO_2 concentrations (seasonal hour of day NO_2 background data) from Chicopee, MA (Station ID 25-013-0008) were incorporated into the modeling results. NO_2 data from December 2017 to November 2020, and processed them to the type of "seasonal hour of day" data. For each season, three consecutive months of data were used. This data was obtained from NYSDEC.

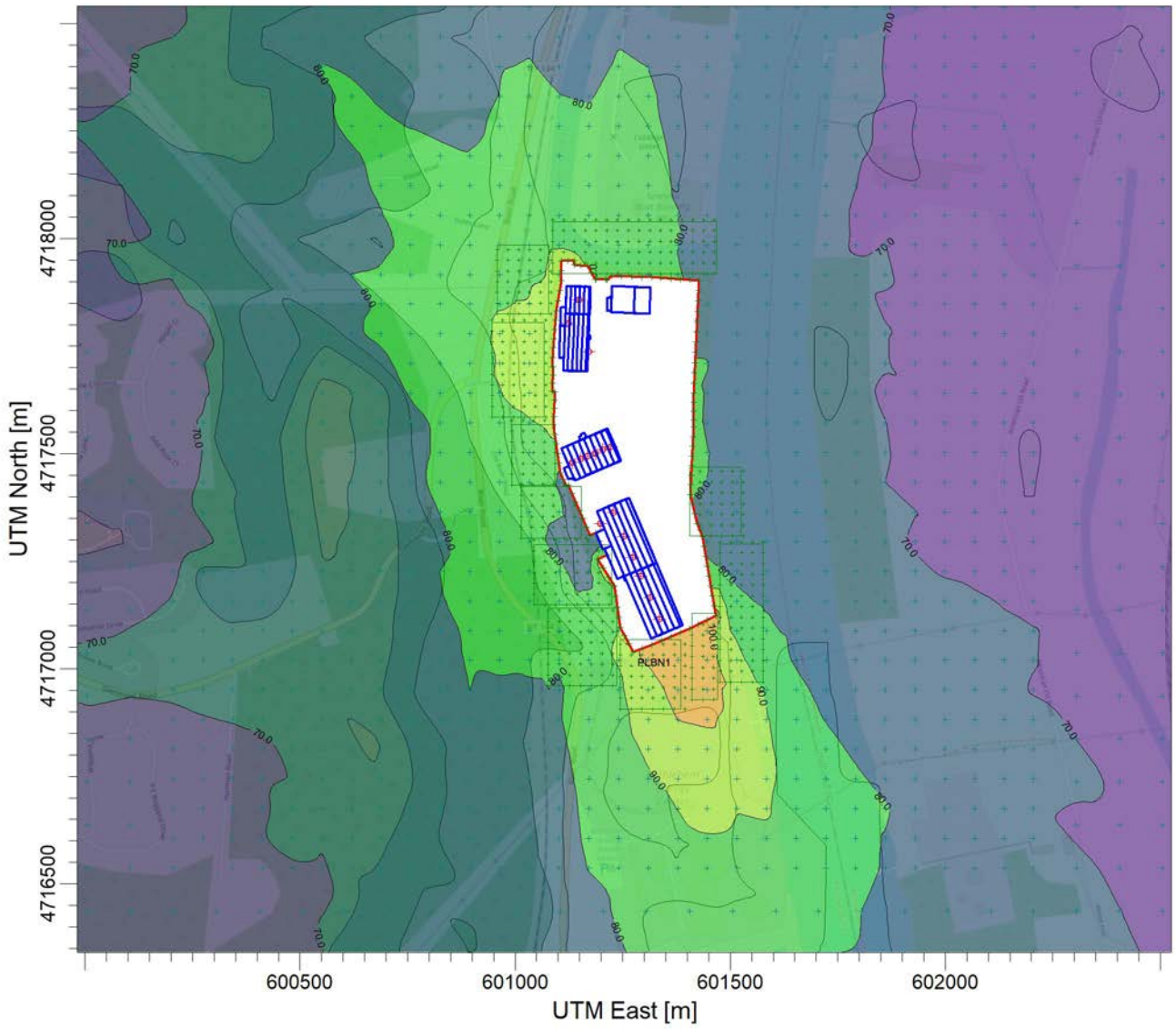
(3) Background 24-hour PM_{10} concentration based upon maximum 24-hour values recorded at Mohawk Mt-Cornwall, CT (Station ID 09-005-0005) in 2020.

(4) Background 24-hour $PM_{2.5}$ concentration based upon the 2018-2020 average of the 98th percentile 24-hour $PM_{2.5}$ values recorded at Albany Co. HD, NY (Station ID 36-001-0005). Background annual mean $PM_{2.5}$ concentration based upon the 2018-2020 annual mean $PM_{2.5}$ values.

(5) Background Lead concentration based upon H1H Rolling 3-month average concentration recorded at Palmerton, PA (Station ID 42-025-0217) in 2020.

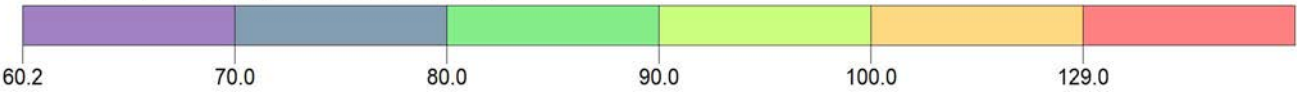
PROJECT TITLE:

E:\Marmen Inc Part 212 Review\Rev_6\NO2_1-Hr_Annual\NO2_1-Hr_Annual
Marmen-Welcon Tower Manufacturing Plant - 1-Hr and Annual NO2 NAAQS



PLOT FILE OF 8TH-HIGHEST MAX DAILY 1-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

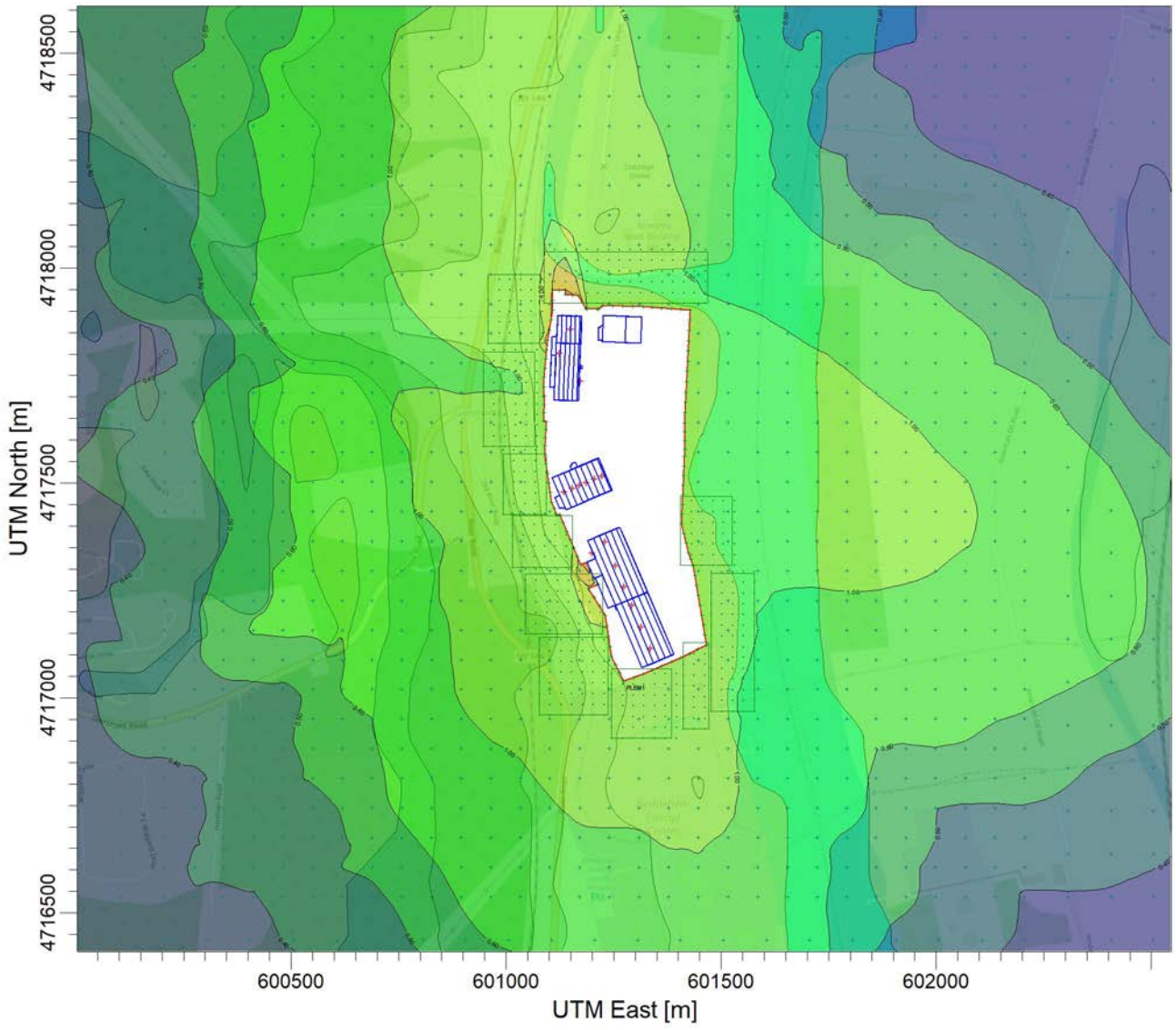
Max: 129.0 [ug/m^3] at (601411.30, 4717078.29)



COMMENTS:	SOURCES: **16**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 (0 — 0.5 km)	
	MAX: **129.0 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

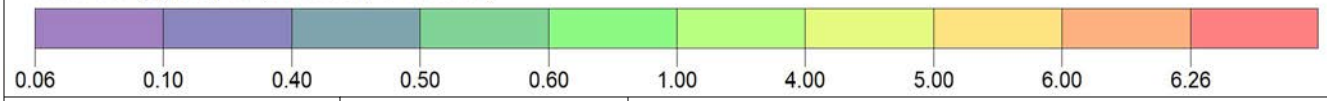
PROJECT TITLE:

E:\Marmen Inc Part 212 Review\Rev_6\PM25_24-Hr\PM25_24-Hr
Marmen-Welcon Tower Manufacturing Plant - 24-Hr PM25 NAAQS



PLOT FILE OF 8TH-HIGHEST MAX DAILY 24-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

Max: 6.26 [ug/m^3] at (601188.06, 4717316.37)



COMMENTS:	SOURCES: **16**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 — 0 — 0.5 km	
	MAX: **6.26 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

Modeling Report R7 – Appendix B

Part 212 Review – Point Source Modeled Non-Criteria Air Contaminant Emission Rates and Results Summaries

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6 NYCRR Part 212 Process Operations
Part 212 Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
1,2,3-Trimethylbenzene	526-73-8	U-BOOTH	Thinner 08450	215	N	Moderate	B	4.98E+00	100	0%	0%	2.49E-01	8760	1.32E+02	n/a
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
1,2,4-Trimethylbenzene	95-63-6	U-BOOTH	Thinner 08450	215	N	Moderate	B	1.45E+01	100	90%, Meet Applicable SGC/AGC	90%	7.25E-01	8760	3.83E+02	n/a
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
1,3-bis(12-Hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	3.53E+00	n/a	Meet Applicable SGC/AGC	0%	1.76E-01	8760	1.83E+02	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
1,6-Hexanediol diglycidylether	16096-31-4	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.49E+01	100	90%, Meet Applicable SGC/AGC	90%	1.49E-01	8760	7.15E+01	n/a
1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	4.52E-02	100	Meet Applicable SGC/AGC	0%	2.26E-03	8760	2.02E+00	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
1-Ethyl-2-methylbenzene	611-14-3	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.34E+00	100	Meet Applicable SGC/AGC	0%	6.68E-02	8760	3.50E+01	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	7.37E+01	100	90%, Meet Applicable SGC/AGC	90%	3.69E+00	8760	7.05E+02	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempaprime Multi 500	8000											
2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.20E+01	n/a	90%, Meet Applicable SGC/AGC	90%	6.01E-01	8760	6.36E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
2,6-Dimethylheptan-4-one (Diisobutyl Ketone)	108-83-8	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	6.24E-01	100	Meet Applicable SGC/AGC	0%	3.12E-02	8760	1.50E+01	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
2-Methoxy-1-methylethyl acetate (Methoxypropylacetate)	108-65-6	U-BOOTH	Hempaprime Multi 500	8000	N	Moderate	B	1.18E+00	100	Meet Applicable SGC/AGC	0%	5.90E-02	8760	9.07E+00	n/a
2-Methoxypropanol	1589-47-5	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.22E-01	100	Meet Applicable SGC/AGC	0%	1.11E-02	8760	2.12E+00	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempaprime Multi 500	8000											
2-Methoxypropyl acetate	70657-70-4	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	3.55E-03	100	Meet Applicable SGC/AGC	0%	1.77E-04	8760	2.73E-02	n/a
2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.74E-01	100	Meet Applicable SGC/AGC	0%	8.68E-03	8760	3.46E+00	n/a
			Galvosil 15700	2000											
2-Methylstyrene	611-15-4	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	6.30E-04	100	Meet Applicable SGC/AGC	0%	3.15E-05	8760	4.85E-03	n/a
2-Phenylpropene (Methyl Styrene)	98-83-9	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	1.51E-01	100	Meet Applicable SGC/AGC	0%	7.57E-03	8760	1.16E+00	n/a
3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	4.32E+00	100	Meet Applicable SGC/AGC	0%	2.16E-01	8760	3.08E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	2.38E+00	100	Meet Applicable SGC/AGC	0%	1.19E-01	8760	1.06E+02	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
4,4'-Isopropylidenediphenol	80-05-7	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	5.16E-02	100	Meet Applicable SGC/AGC	0%	5.16E-04	8760	5.16E-01	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
4,6-Dimethyl-2-heptanone	19549-80-5	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	2.34E-01	100	Meet Applicable SGC/AGC	0%	1.17E-02	8760	5.62E+00	n/a
Acrylic resin	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	2.80E+01	100	90%, Meet Applicable SGC/AGC	90%	2.80E-01	8760	1.04E+02	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Alkyd resin	CBI	U-BOOTH	Hempadur 4774D	52000	N	(Moderate)	B	3.93E-01	n/a	Meet Applicable SGC/AGC	0%	3.93E-03	8760	2.83E+00	n/a
			Hempaprime Multi 500	8000											
Allyl glycidyl ether	106-92-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	4.30E-03	100	Meet Applicable SGC/AGC	0%	2.15E-04	8760	3.06E-01	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Aluminium hydroxide	21645-51-2	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	8.97E-01	100	t Applicable SGC/	0%	8.97E-03	8760	9.22E+00	n/a
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Aluminum oxide	1344-28-1	U-MFR_A	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	8.15E-01	100	Meet Applicable SGC/AGC	0%	8.15E-03	8760	6.92E+00	n/a
		U-MFR_B											8760		
		U-BOOTH	Hempathane 55610	14100									8760		
Amorphous silica	68611-44-9	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	6.51E-01	100	Meet Applicable SGC/AGC	0%	6.51E-03	8760	2.50E-01	n/a
Barium sulfate	7727-43-7	U-BOOTH	Hempathane 55610	14100	N	Moderate	B	1.20E+01	100	Meet Applicable SGC/AGC	0%	1.20E-01	8760	4.45E+01	n/a
Benzaldehyde	100-52-7	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	High	A	6.60E-02	n/a	Meet Applicable SGC/AGC	0%	3.30E-03	8760	1.59E+00	n/a
Benzene	71-43-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	Y	High	A	6.74E-02	100	Meet Applicable SGC/AGC	0%	3.38E-03	8760	5.38E+00	N
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Natural Gas	61.3 MMscf/yr											
Benzyl alcohol	100-51-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	Moderate	B	3.46E+01	100	90%, Meet Applicable SGC/AGC	90%	1.73E+00	8760	8.32E+02	n/a
Benzyl chloride	100-44-7	U-BOOTH	Hempadur Multi-Strength 35842	25000	Y	High	A	3.43E-03	25	Meet Applicable SGC/AGC	0%	1.72E-04	8760	8.25E-02	N
bis (1,2,2,6,6-Pentamethyl-4-piperidyl) sebacate	41556-26-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.28E+00	100	Meet Applicable SGC/AGC	0%	6.39E-02	8760	2.37E+01	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
bis[(Dimethylamino)methyl]phenol	71074-89-0	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.12E+00	n/a	Meet Applicable SGC/AGC	0%	1.06E-01	8760	1.12E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Bisphenol A-(epichlorhydrin) epoxy resin	25068-38-6	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	5.21E+01	100	90%, Meet Applicable SGC/AGC	90%	5.21E-01	8760	6.89E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Block copolymer	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	2.40E-01	n/a	Meet Applicable SGC/AGC	0%	2.40E-03	8760	8.90E-01	n/a
C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)	64742-48-9	U-BOOTH	Hempadur 4774D	52000	N	Moderate	B	5.91E-01	100	Meet Applicable SGC/AGC	0%	2.96E-02	8760	2.13E+01	n/a
			Hempaprime Multi 500	8000											
C12-14 Alcohols	80206-82-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.36E+00	100	Meet Applicable SGC/AGC	0%	6.82E-02	8760	5.05E+01	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Cadmium	7440-43-9	U-MFR_A	Natural Gas	428.7 MMscf/yr	Y	High	A	2.38E-04	1	Meet Applicable SGC/AGC	0%	7.79E-05	8760	6.82E-01	N
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		
		U-METAL	Zinc Wire	3504000 lbs/yr									8760		
Calcium carbonate	16389-88-1	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	7.22E-03	n/a	Meet Applicable SGC/AGC	0%	7.22E-05	8760	6.33E-01	n/a
Carbon black	1333-86-4	U-BOOTH	Hempaprime Multi 500	8000	N	Moderate	B	3.29E-02	100	Meet Applicable SGC/AGC	0%	3.29E-04	8760	5.05E-02	n/a
Chromium	7440-47-3	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		Y	High	A	1.31E-01	250	Comply w/ NESHAP and/or Meet Applicable SGC/AGC	0%	1.31E-01	8760	1.23E+01	N
			NS-115 ER70S-6	62,700 lbs weld wire/yr											
			Bohler HL 51 L-MC	209,250 lbs weld wire/yr											
			E71T-12M-JH4	116,400 lbs weld wire/yr											
		U-MFR_A	Natural Gas	428.7 MMscf/yr									8760		
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-PBLST	Steel Shot	30000 lbs steel shot/hr									8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Copper	7440-50-8	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	Moderate	B	7.38E-02	100	Meet Applicable SGC/AGC	0%	7.38E-04	8760	6.47E+00	n/a
		U-PBLST	Steel Shot	30000 lbs steel shot/hr									8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr									8760		
Cryolite	13775-53-6	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	1.24E-02	n/a	Meet Applicable SGC/AGC	0%	1.24E-04	8760	1.08E+00	n/a
Cumene	98-82-8	U-BOOTH	Thinner 08450	215	N	(Moderate)	B	6.79E-01	100	Meet Applicable SGC/AGC	0%	3.40E-02	8760	1.79E+01	n/a
			Hempathane 55610	14100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
Cured phenolic resin	9003-35-4	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	High	A	1.55E-02	n/a	Meet Applicable SGC/AGC	0%	1.55E-04	8760	1.36E+00	n/a
Decamethylcyclopentasiloxane (D5)	541-02-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	Low	C	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	8760	2.07E-02	n/a
Dibenzyl ether	103-50-4	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.43E-02	100	Meet Applicable SGC/AGC	0%	1.72E-03	8760	8.26E-01	n/a
Dibutyltin dilaurate	77-58-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	2.45E-02	100	Meet Applicable SGC/AGC	0%	2.45E-04	8760	9.08E-02	n/a
Dipotassium oxide	12136-45-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.28E-01	100	Meet Applicable SGC/AGC	0%	1.28E-03	8760	4.75E-01	n/a
Dodecamethylcyclohexasiloxane (D6)	540-97-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	8760	2.07E-02	n/a
Ethanol + Ethanol (formed by reaction)	64-17-5	U-BOOTH	Galvosil 15700	2000	N	Low	C	6.26E+01	100	75%, Meet Applicable SGC/AGC	75%	3.13E+00	8760	1.20E+02	n/a
Ethylbenzene	100-41-4	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	2.06E+01	100	90%, Meet Applicable SGC/AGC	90%	1.03E+00	8760	1.14E+03	n/a
			Thinner 08450	215											
			Hempathane 55610	14100											
			Thinner 08080	100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Ethylpolysilicate	11099-06-2	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	4.84E+01	100	90%, Meet Applicable SGC/AGC	90%	2.42E+00	8760	9.32E+01	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Fatty acids, c18-unsatd., dimers, polymers with triethylenetetramine, reaction products with poly (bisphenol a diglycidyl ether)	68424-41-9	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	4.65E+01	n/a	90%, Meet Applicable SGC/AGC	90%	2.33E+00	8760	3.58E+02	n/a
Feldspar-group minerals	68476-25-5	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	3.42E-01	100	Meet Applicable SGC/AGC	0%	3.42E-03	8760	1.31E-01	n/a
Fluoro polysiloxane	CBI	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.84E-03	100	Meet Applicable SGC/AGC	0%	1.84E-05	8760	8.87E-03	n/a
Glass beads	65997-17-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.41E+01	100	90%, Meet Applicable SGC/AGC	90%	1.41E-01	8760	8.45E+01	n/a
			Hempadur Multi-Strength 35842	25000											
Heptan-2-one (Methyl Amyl Ketone)	110-43-0	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	7.38E+00	100	Meet Applicable SGC/AGC	0%	3.69E-01	8760	5.68E+01	n/a
Hexamethylene-1,6-diisocyanate homopolymer (HDI Homopolymer)	28182-81-2	U-BOOTH	Hempathane 55610	14100	Y	High	A	1.00E+01	100	99%, Meet Applicable SGC/AGC	99%	1.00E-01	8760	3.72E+01	N
Hexamethylene-di-isocyanate (HDI)	822-06-0	U-BOOTH	Hempathane 55610	14100	Y	High	A	1.34E-01	100	Meet Applicable SGC/AGC	0%	6.71E-03	8760	2.49E+00	N
Hydrogen chloride	7647-01-0	U-BOOTH	Galvosil 15700	2000	N	Moderate	B	8.77E-02	100	Meet Applicable SGC/AGC	0%	8.77E-02	8760	3.37E+00	n/a
Hydrogenated castor oil	8001-78-3	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	8.14E+00	n/a	Meet Applicable SGC/AGC	0%	8.14E-02	8760	3.91E+01	n/a
Iron hydroxide oxide	20344-49-4	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	7.53E-02	100	Meet Applicable SGC/AGC	0%	7.53E-04	8760	1.16E-01	n/a
Kaolin (Clay)	1332-58-7	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	2.07E+01	100	90%, Meet Applicable SGC/AGC	90%	2.07E-01	8760	7.97E+00	n/a
Lead	7439-92-1	U-MFR_A	Natural Gas	428.7 MMscf/yr	Y	High	A	3.82E-03	5	Comply w/ NESHAP, HTAC Mass Emission Limit	0%	1.47E-03	8760	8.45E-01	N
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		
		U-METAL	Zinc Wire	3504000 lbs/yr									8760		

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Lead compounds (Lead Tetraoxide)	1314-41-6	U-BOOTH	Hempathane 55610	14100	Y	High	A	1.19E-03	5	Meet Applicable SGC/AGC	0%	1.19E-05	8760	4.41E-03	N
Lecithin	8002-43-5	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.60E-01	n/a	Meet Applicable SGC/AGC	0%	1.60E-03	8760	5.92E-01	n/a
Limestone	1317-65-3	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	5.00E+01	100	90%, Meet Applicable SGC/AGC	90%	5.00E-01	8760	3.33E+02	n/a
			Hempadur 4774D	52000											
Manganese	7439-96-5	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		Y	High	A	6.56E-01	10	Comply w/ NESHAP, conduct TIA	0%	6.58E-03	8760	5.77E+01	Y
			ESAB Spoolarc 81 (SA81) WIRE SUBARC EM12K	2,792,700 lbs weld wire/yr											
			ESAB OK Flux 10.72 for SAW, EM12K	3,490,950 lbs weld wire/yr											
			NS-115 ER70S-6	62,700 lbs weld wire/yr											
			Bohler HL 51 L-MC	209,250 lbs weld wire/yr											
			E71T-12M-JH4	116,400 lbs weld wire/yr											
		U-MFR_A	Natural Gas	428.7 MMscf/yr									8760		
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-PBLST	Steel Shot	30000 lbs steel shot/hr						99%, Comply w/ NESHAP, conduct TIA			8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr						90%, Comply w/ NESHAP, conduct TIA			8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr						Meet Applicable SGC/AGC, conduct TIA			8760		
Methanol + Methanol (formed by reaction)	67-56-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	1.79E+00	100	Meet Applicable SGC/AGC	0%	8.96E-02	8760	1.28E+02	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Methyl Ethyl Ketone	78-93-3	U-BOOTH	Methyl Ethyl Ketone (MEK, butanone)	6000	N	Moderate	B	1.38E+01	100	90%, Meet Applicable SGC/AGC	90%	6.90E-01	8760	2.01E+03	n/a
Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	82919-37-7	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	3.20E-01	100	Meet Applicable SGC/AGC	0%	3.20E-01	8760	1.19E+02	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Methylstyrenated phenol	68512-30-1	U-BOOTH	Hempaprime Multi 500	8000	N	(Moderate)	B	3.00E+01	n/a	90%, Meet Applicable SGC/AGC	90%	1.50E+00	8760	2.31E+02	n/a
Mica	12001-26-2	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	4.56E-01	100	Meet Applicable SGC/AGC	0%	4.56E-03	8760	1.75E-01	n/a
m-Xylylene-diamine (Xylene Diamine, Meta-)	1477-55-0	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.84E+00	n/a	Meet Applicable SGC/AGC	0%	9.21E-02	8760	4.43E+01	n/a
Naphthalene	91-20-3	U-BOOTH	Natural Gas	61.3 MMscf/yr	N	Moderate	B	4.47E-02	100	Meet Applicable SGC/AGC	0%	2.25E-03	8760	9.73E-01	n/a
n-Butanol (N-Butyl Alcohol)	71-36-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Low	C	4.23E+01	100	75%, Meet Applicable SGC/AGC	75%	2.12E+00	8760	2.10E+03	n/a
			Thinner 08450	215											
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
n-Butyl acetate	123-86-4	U-BOOTH	Hempathane 55610	14100	N	Low	C	4.49E+01	100	75%, Meet Applicable SGC/AGC	75%	2.24E+00	8760	8.72E+02	n/a
			Hempaprime Multi 500	8000											
Nepheline syenite	37244-96-5	U-BOOTH	Hempadur 4774D	52000	N	(Moderate)	B	5.16E+01	n/a	90%, Meet Applicable SGC/AGC	90%	5.16E-01	8760	3.82E+02	n/a
			Hempaprime Multi 500	8000											
Nickel	7440-02-0	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		Y	High	A	1.03E-01	10	Comply w/ NESHAP, conduct TIA and/or Meet Applicable SGC/AGC	0%	1.18E-03	8760	1.03E+01	Y
			NS-115 ER70S-6	62,700 lbs weld wire/yr											
			Bohler HL 51 L-MC	209,250 lbs weld wire/yr											
			E71T-12M-JH4	116,400 lbs weld wire/yr											
		U-MFR_A	Natural Gas	428.7 MMscf/yr									8760		
		U-MFR_B	Natural Gas	130.3 MMscf/yr									8760		
		U-PBLST	Steel Shot	30000 lbs steel shot/hr									8760		
		U-TBLST	Steel Shot	3500 lbs steel shot/hr									8760		
		U-BOOTH	Natural Gas	61.3 MMscf/yr									8760		
Nonane	111-84-2	U-BOOTH	Hempadur 4774D	52000	N	Low	C	6.90E-02	100	Meet Applicable SGC/AGC	0%	3.45E-03	8760	2.49E+00	n/a
			Hempaprime Multi 500	8000											
Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	100545-48-0	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	6.78E-01	n/a	Meet Applicable SGC/AGC	0%	6.78E-03	8760	3.26E+00	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Octamethylcyclotetrasiloxane (D4)	556-67-2	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	Moderate	B	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	8760	2.07E-02	n/a
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	6.67E+01	100	90%, Meet Applicable SGC/AGC	90%	3.34E+00	8760	2.47E+03	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Phenol	108-95-2	U-BOOTH	Hempadur 4774D	52000	N	Moderate	B	1.51E-01	100	Meet Applicable SGC/AGC	0%	7.57E-03	8760	1.25E+00	n/a
			Hempaprime Multi 500	8000											
Phosphorus pentoxide	1314-56-3	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.01E+00	100	Meet Applicable SGC/AGC	0%	5.07E-02	8760	1.88E+01	n/a
Pigment black 10, 77265 (Graphite)	7782-42-5	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.93E+00	100	Meet Applicable SGC/AGC	0%	1.93E-02	8760	1.15E+01	n/a
Polyamineamide salt	CBI	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	4.34E-01	n/a	Meet Applicable SGC/AGC	0%	4.34E-03	8760	1.73E+00	n/a
			Galvosil 15700	2000											
Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidylester and bisphenol A-(epichlorhydrin) epoxy resin	CBI	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	1.33E+01	100	90%, Meet Applicable SGC/AGC	90%	1.33E-01	8760	6.41E+01	n/a
Polymer of: triethylenetetramine, polyaminoamide and bisphenol A-(epichlorhydrin) epoxy resin	CBI	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	1.73E+01	n/a	90%, Meet Applicable SGC/AGC	90%	1.73E-01	8760	1.33E+02	n/a
			Hempadur 4774D	52000											
Polyolefins	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	6.52E-02	100	Meet Applicable SGC/AGC	0%	6.52E-04	8760	1.60E-01	n/a
			Hempaprime Multi 500	8000											
Polyoxypropylenediamine	9046-10-0	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.94E+01	100	90%, Meet Applicable SGC/AGC	90%	1.97E+00	8760	9.47E+02	n/a
Potassium floroborate	14075-53-7	U-MFR_A, U-MFR_B	150 Towers or 100 Towers and 100 Transition Pieces		N	(Moderate)	B	1.24E-02	n/a	Meet Applicable SGC/AGC	0%	1.24E-04	8760	1.08E+00	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Precipitated silica	112926-00-8	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	8.64E-02	100	Meet Applicable SGC/AGC	0%	4.32E-03	8760	2.57E+00	n/a
Propan-2-ol (Isopropyl Alcohol)	67-63-0	U-BOOTH	Galvosil 15700	2000	N	Moderate	B	2.41E+01	100	90%, Meet Applicable SGC/AGC	90%	1.21E+00	8760	4.64E+01	n/a
Propyleneglycol (Propanediol, 1,2-)	57-55-6	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	1.74E-01	100	Meet Applicable SGC/AGC	0%	8.68E-03	8760	3.46E+00	n/a
			Galvosil 15700	2000											
Quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with bentonite and bis(hydrogenated tallow alkyl)dimethylammonium chlorides	71011-25-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.17E+00	n/a	Meet Applicable SGC/AGC	0%	2.17E-02	8760	1.29E+01	n/a
Quaternary ammonium modified bentonite	121888-68-4	U-BOOTH	Galvosil 15700	2000	N	(Moderate)	B	8.42E-01	n/a	Meet Applicable SGC/AGC	0%	8.42E-03	8760	3.24E-01	n/a
Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl)amino] hexyl]	CBI	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.51E+00	n/a	Meet Applicable SGC/AGC	0%	1.51E-02	8760	1.57E+01	n/a
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Respirable quartz	14808-60-7	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.13E+00	100	Meet Applicable SGC/AGC	0%	2.13E-02	8760	1.79E+01	n/a
			Hempadur Multi-Strength 35842	25000											
			Hempathane 55610	14100											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Salicylic acid	69-72-7	U-BOOTH	Hempadur 4774D	52000	N	(Moderate)	B	3.36E-01	n/a	Meet Applicable SGC/AGC	0%	3.36E-03	8760	2.03E+00	n/a
Silicon dioxide	7631-86-9	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.59E-01	100	Meet Applicable SGC/AGC	0%	3.59E-03	8760	3.50E+00	n/a
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Solvent naphtha			Thinner 08450	215						90%, Meet					

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	U-BOOTH	Hempathane 55610	14100	N	Moderate	B	5.65E+01	100	90%, Meet Applicable SGC/AGC	90%	2.83E+00	8760	1.22E+03	n/a
			Thinner 08740	2000											
			Galvosil 15700	2000											
Stearic acid	57-11-4	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.06E+01	100	90%, Meet Applicable SGC/AGC	90%	5.32E-01	8760	3.54E+02	n/a
			Hempadur 4774D	52000											
Talc (non-asbestiform)	14807-96-6	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	2.36E+01	100	90%, Meet Applicable SGC/AGC	90%	2.36E-01	8760	1.08E+02	n/a
			Hempaprime Multi 500	8000											
Titanium dioxide	13463-67-7	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.43E+01	100	90%, Meet Applicable SGC/AGC	90%	3.43E-01	8760	3.28E+02	n/a
			Hempathane 55610	14100											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Toluene	108-88-3	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Low	C	8.81E-01	100	Meet Applicable SGC/AGC	0%	4.41E-02	8760	5.33E+01	n/a
			Thinner 08080	100											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Natural Gas	61.3 MMscf/yr											
Trimethylolpropane	77-99-6	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.01E+00	100	Meet Applicable SGC/AGC	0%	5.07E-02	8760	1.88E+01	n/a
Trizinc bis(orthophosphate)	7779-90-0	U-BOOTH	Hempathane 55610	14100	N	(Moderate)	B	1.16E+00	100	Meet Applicable SGC/AGC	0%	1.16E-02	8760	4.31E+00	n/a
White spirit (Naphtha Medium Aliphatic)	64742-88-7	U-BOOTH	Hempathane 55610	14100	N	Moderate	B	1.04E+00	100	Meet Applicable SGC/AGC	0%	5.21E-02	8760	1.28E+01	n/a
			Hempaprime Multi 500	8000											
Xylene	1330-20-7	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	9.30E+01	100	90%, Meet Applicable SGC/AGC	90%	4.65E+00	8760	5.17E+03	n/a
			Thinner 08450	215											
			Hempathane 55610	14100											
			Thinner 08080	100											
			Thinner 08740	2000											
			Galvosil 15700	2000											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											
Zeolites	1318-02-1	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	(Moderate)	B	2.63E-01	n/a	Meet Applicable SGC/AGC	0%	2.63E-03	8760	1.56E+00	n/a

Site-Wide Process Emission Source Non-Criteria Air Contaminant Emissions Summary

Contaminant Name	CAS No.	Contributing Emission Unit(s)	Contributing Coating(s)/Material(s)/Fuel	Annual Material Throughput Restrictions (gal/yr)	HTAC?	NYSDEC DAR-1 Toxicity Level	Assigned Env. Rating (ER)	Site-Wide Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Site-Wide Hourly Emission Rate (lb/hr)	Annual Operating Hours (hrs/yr)	Site-Wide Annual Emissions (lbs/yr)	HTAC TIA Required?
Zinc chloride	7646-85-7	U-BOOTH	Galvosil 15700	2000	N	Moderate	B	3.42E-01	100	Meet Applicable SGC/AGC	0%	3.42E-03	8760	1.31E-01	n/a
Zinc oxide	1314-13-2	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Moderate	B	1.19E+01	100	90%, Meet Applicable SGC/AGC	90%	1.19E-01	8760	5.33E+01	n/a
			Hempathane 55610	14100											
			Galvosil 15700	2000											
Zinc powder - zinc dust (stabilized)	7440-66-6	U-BOOTH	Hempadur Zinc 1736/G (Avantguard 750)	25000	N	Low	C	3.54E+02	100	75%, Meet Applicable SGC/AGC	75%	1.88E+00	8760	9.81E+02	n/a
			Galvosil 15700	2000											
		U-METAL	Zinc Wire	3504000 lbs/yr									8760		
Zirconium dioxide	1314-23-4	U-BOOTH	Hempadur Multi-Strength 35842	25000	N	(Moderate)	B	3.59E-01	100	Meet Applicable SGC/AGC	0%	3.59E-03	8760	3.50E+00	n/a
			Hempathane 55610	14100											
			Hempadur 4774D	52000											
			Hempaprime Multi 500	8000											

Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 212 Process Operations
Part 212 Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level (1), (2)	Assigned Env. Rating (ER) (1)	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) (3)	Multi-Chem Modeled Hourly Emission Rate (g/s) (3)	Proposed Allowable Annual Emissions (lbs/yr) (3)	Modeled Annual Emission Rate (lb/hr) (3)	Multi-Chem Modeled Annual Emission Rate (g/s) (3)
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Manganese	7439-96-5	Manganese_7439-96-5	Y	High	A	4.29E-02	10	Comply w/ NESHAP, conduct TIA	0%	4.48E-04	7.46E-05	9.40E-06	3.92	7.46E-05	9.40E-06
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Chromium	7440-47-3	Chromium_7440-47-3	Y	High	A	4.15E-02	250	Comply w/ NESHAP	0%	4.83E-04	Not Modeled (9)	Not Modeled (9)	4.23	Not Modeled (9)	Not Modeled (9)
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Nickel	7440-02-0	Nickel_7440-02-0	Y	High	A	2.77E-02	10	Comply w/ NESHAP, conduct TIA	0%	3.79E-04	6.32E-05	7.96E-06	3.32	6.32E-05	7.96E-06
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Lead	7439-92-1	Lead_7439-92-1	Y	High	A	2.45E-05	5	Comply w/ NESHAP, HTAC Mass Emission Limit	0%	2.45E-05	Not Modeled (9)	Not Modeled (9)	0.214	Not Modeled (9)	Not Modeled (9)
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Cadmium	7440-43-9	Cadmium_7440-43-9	Y	High	A	5.38E-05	1	Meet Applicable SGC/AGC	0%	5.38E-05	8.97E-06	1.13E-06	0.472	8.97E-06	1.13E-06
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Copper	7440-50-8	Copper_7440-50-8	N	Moderate	B	1.32E-02	100	Meet Applicable SGC/AGC	0%	1.32E-04	Not Modeled (9)	Not Modeled (9)	1.15	Not Modeled (9)	Not Modeled (9)
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Aluminum oxide	1344-28-1	Aluminum oxide_1344-28-1	N	(Moderate)	B	2.32E-02	100	Meet Applicable SGC/AGC	0%	2.32E-04	3.87E-05	4.88E-06	2.03	3.87E-05	4.88E-06
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Cured phenolic resin	9003-35-4	Cured phenolic resin_9003-35-4	N	High	A	7.74E-03	n/a	Meet Applicable SGC/AGC	0%	7.74E-05	1.29E-05	1.63E-06	0.678	1.29E-05	1.63E-06
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Calcium carbonate	16389-88-1	Calcium carbonate_16389-88-1	N	(Moderate)	B	3.61E-03	n/a	Meet Applicable SGC/AGC	0%	3.61E-05	6.02E-06	7.58E-07	0.316	6.02E-06	7.58E-07
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Cryolite	13775-53-6	Cryolite_13775-53-6	N	(Moderate)	B	6.19E-03	n/a	Meet Applicable SGC/AGC	0%	6.19E-05	1.03E-05	1.30E-06	0.542	1.03E-05	1.30E-06
U-MFR_A	See Note 4	VNT1A - VNT6A	VENT_1A - VENT_6A	6	Potassium floroborate	14075-53-7	Potassium floroborate_14075-53-7	N	(Moderate)	B	6.19E-03	n/a	Meet Applicable SGC/AGC	0%	6.19E-05	1.03E-05	1.30E-06	0.542	1.03E-05	1.30E-06
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Manganese	7439-96-5	Manganese_7439-96-5	Y	High	A	4.29E-02	10	Comply w/ NESHAP, conduct TIA	0%	4.35E-04	7.24E-05	9.13E-06	3.81	7.24E-05	9.13E-06
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Chromium	7440-47-3	Chromium_7440-47-3	Y	High	A	4.15E-02	250	Comply w/ NESHAP	0%	4.36E-04	Not Modeled (9)	Not Modeled (9)	3.82	Not Modeled (9)	Not Modeled (9)
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Nickel	7440-02-0	Nickel_7440-02-0	Y	High	A	2.77E-02	10	Comply w/ NESHAP, conduct TIA	0%	3.08E-04	5.13E-05	6.46E-06	2.69	5.13E-05	6.46E-06
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Lead	7439-92-1	Lead_7439-92-1	Y	High	A	7.44E-06	5	Comply w/ NESHAP, HTAC Mass Emission Limit	0%	7.44E-06	Not Modeled (9)	Not Modeled (9)	6.51E-02	Not Modeled (9)	Not Modeled (9)
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Cadmium	7440-43-9	Cadmium_7440-43-9	Y	High	A	1.64E-05	1	Meet Applicable SGC/AGC	0%	1.64E-05	2.73E-06	3.44E-07	0.143	2.73E-06	3.44E-07

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [1], [2]	Assigned Env. Rating (ER) [1]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [3]	Multi-Chem Modeled Hourly Emission Rate (g/s) [3]	Proposed Allowable Annual Emissions (lbs/yr) [3]	Modeled Annual Emission Rate (lb/hr) [3]	Multi-Chem Modeled Annual Emission Rate (g/s) [3]
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Copper	7440-50-8	Copper_7440-50-8	N	Moderate	B	1.32E-02	100	Meet Applicable SGC/AGC	0%	1.32E-04	Not Modeled [9]	Not Modeled [9]	1.15	Not Modeled [9]	Not Modeled [9]
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Aluminum oxide	1344-28-1	Aluminum oxide_1344-28-1	N	(Moderate)	B	2.32E-02	100	Meet Applicable SGC/AGC	0%	2.32E-04	3.87E-05	4.88E-06	2.03	3.87E-05	4.88E-06
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Cured phenolic resin	9003-35-4	Cured phenolic resin_9003-35-4	N	High	A	7.74E-03	n/a	Meet Applicable SGC/AGC	0%	7.74E-05	1.29E-05	1.63E-06	0.678	1.29E-05	1.63E-06
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Calcium carbonate	16389-88-1	Calcium carbonate_16389-88-1	N	(Moderate)	B	3.61E-03	n/a	Meet Applicable SGC/AGC	0%	3.61E-05	6.02E-06	7.58E-07	0.316	6.02E-06	7.58E-07
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Cryolite	13775-53-6	Cryolite_13775-53-6	N	(Moderate)	B	6.19E-03	n/a	Meet Applicable SGC/AGC	0%	6.19E-05	1.03E-05	1.30E-06	0.542	1.03E-05	1.30E-06
U-MFR_B	See Note 5	VNT1B - VNT6B	VENT_1B - VENT_6B	6	Potassium floroborate	14075-53-7	Potassium floroborate_14075-53-7	N	(Moderate)	B	6.19E-03	n/a	Meet Applicable SGC/AGC	0%	6.19E-05	1.03E-05	1.30E-06	0.542	1.03E-05	1.30E-06
U-PBLST	PBLAST	0001A	STCK_1A	1	Manganese	7439-96-5	Manganese_7439-96-5	Y	High	A	0.360	10	99%, Comply w/ NESHAP, conduct TIA	99%	3.60E-03	3.60E-03	4.54E-04	31.5	3.60E-03	4.54E-04
U-PBLST	PBLAST	0001A	STCK_1A	1	Chromium	7440-47-3	Chromium_7440-47-3	Y	High	A	0.030	250	Comply w/ NESHAP	0%	3.00E-04	Not Modeled [9]	Not Modeled [9]	2.63	Not Modeled [9]	Not Modeled [9]
U-PBLST	PBLAST	0001A	STCK_1A	1	Nickel	7440-02-0	Nickel_7440-02-0	Y	High	A	0.030	10	90%, Comply w/ NESHAP, conduct TIA	90%	3.00E-04	3.00E-04	3.78E-05	2.63	3.00E-04	3.78E-05
U-PBLST	PBLAST	0001A	STCK_1A	1	Copper	7440-50-8	Copper_7440-50-8	N	Moderate	B	0.030	100	Meet Applicable SGC/AGC	0%	3.00E-04	Not Modeled [9]	Not Modeled [9]	2.63	Not Modeled [9]	Not Modeled [9]
U-TBLST	TBLAST	0001C	STCK_1C	1	Manganese	7439-96-5	Manganese_7439-96-5	Y	High	A	0.210	10	90%, Comply w/ NESHAP, conduct TIA	90%	2.10E-03	2.10E-03	2.65E-04	18.4	2.10E-03	2.65E-04
U-TBLST	TBLAST	0001C	STCK_1C	1	Chromium	7440-47-3	Chromium_7440-47-3	Y	High	A	1.75E-02	250	Comply w/ NESHAP	0%	1.75E-04	Not Modeled [9]	Not Modeled [9]	1.53	Not Modeled [9]	Not Modeled [9]
U-TBLST	TBLAST	0001C	STCK_1C	1	Nickel	7440-02-0	Nickel_7440-02-0	Y	High	A	1.75E-02	10	Comply w/ NESHAP, conduct TIA	0%	1.75E-04	1.75E-04	2.20E-05	1.53	1.75E-04	2.20E-05
U-TBLST	TBLAST	0001C	STCK_1C	1	Copper	7440-50-8	Copper_7440-50-8	N	Moderate	B	1.75E-02	100	Meet Applicable SGC/AGC	0%	1.75E-04	Not Modeled [9]	Not Modeled [9]	1.53	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Ethylbenzene	100-41-4	Ethylbenzene_100-41-4	N	Moderate	B	20.6	100	90%, Meet Applicable SGC/AGC	90%	1.03	1.03	0.130	1142	0.130	1.64E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Benzyl chloride	100-44-7	Benzyl chloride_100-44-7	Y	High	A	3.43E-03	25	Meet Applicable SGC/AGC	0%	1.72E-04	Not Modeled [9]	Not Modeled [9]	8.25E-02	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Benzyl alcohol	100-51-6	Benzyl alcohol_100-51-6	N	Moderate	B	34.6	100	90%, Meet Applicable SGC/AGC	90%	1.73	1.73	0.218	832	9.49E-02	1.20E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Benzaldehyde	100-52-7	Benzaldehyde_100-52-7	N	High	A	6.60E-02	n/a	Meet Applicable SGC/AGC	0%	3.30E-03	3.30E-03	4.16E-04	1.59	1.81E-04	2.28E-05

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [(1), (2)]	Assigned Env. Rating (ER) [(1)]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Hourly Emission Rate (g/s) [(3)]	Proposed Allowable Annual Emissions (lbs/yr) [(3)]	Modeled Annual Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Annual Emission Rate (g/s) [(3)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine	100545-48-0	Octadecanoic acid, 12-hydroxy-, reaction products with ethylenediamine_100545-48-0	N	(Moderate)	B	0.678	n/a	Meet Applicable SGC/AGC	0%	6.78E-03	6.78E-03	8.55E-04	3.26	3.72E-04	4.69E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	Dibenzyl ether	103-50-4	Dibenzyl ether_103-50-4	N	(Moderate)	B	3.43E-02	100	Meet Applicable SGC/AGC	0%	1.72E-03	Not Modeled [(9)]	Not Modeled [(9)]	0.826	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	1-Chloro-2,3-epoxypropane (Epichlorohydrin)	106-89-8	1-Chloro-2,3-epoxypropane (Epichlorohydrin)_106-89-8	N	Moderate	B	4.52E-02	100	Meet Applicable SGC/AGC	0%	2.26E-03	Not Modeled [(9)]	Not Modeled [(9)]	2.02	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Allyl glycidyl ether	106-92-3	Allyl glycidyl ether_106-92-3	N	(Moderate)	B	4.30E-03	100	Meet Applicable SGC/AGC	0%	2.15E-04	2.15E-04	2.71E-05	0.306	3.50E-05	4.40E-06
U-BOOTH	See Note 6	0002C	STCK_2C	1	1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)	107-98-2	1-Methoxy-2-propanol (Propylene Glycol 1-Methyl Ether)_107-98-2	N	Moderate	B	73.7	100	90%, Meet Applicable SGC/AGC	90%	3.69	3.69	0.464	705	8.05E-02	1.01E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	2-Methoxy-1-methylethyl acetate (Methoxypropylacetate)	108-65-6	2-Methoxy-1-methylethyl acetate (Methoxypropylacetate)_108-65-6	N	Moderate	B	1.18	100	Meet Applicable SGC/AGC	0%	5.90E-02	Not Modeled [(9)]	Not Modeled [(9)]	9.07	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	2,6-Dimethylheptan-4-one (Diisobutyl Ketone)	108-83-8	2,6-Dimethylheptan-4-one (Diisobutyl Ketone)_108-83-8	N	(Moderate)	B	0.624	100	Meet Applicable SGC/AGC	0%	3.12E-02	3.12E-02	3.93E-03	15.0	1.71E-03	2.16E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Toluene [(8)]	108-88-3	Toluene (8)_108-88-3	N	Low	C	0.881	100	Meet Applicable SGC/AGC	0%	4.41E-02	Not Modeled [(9)]	Not Modeled [(9)]	53.3	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Phenol	108-95-2	Phenol_108-95-2	N	Moderate	B	0.151	100	Meet Applicable SGC/AGC	0%	7.57E-03	Not Modeled [(9)]	Not Modeled [(9)]	1.25	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Heptan-2-one (Methyl Amyl Ketone)	110-43-0	Heptan-2-one (Methyl Amyl Ketone)_110-43-0	N	(Moderate)	B	7.38	100	Meet Applicable SGC/AGC	0%	0.369	0.369	4.65E-02	56.8	6.48E-03	8.17E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Ethylpolysilicate	11099-06-2	Ethylpolysilicate_11099-06-2	N	(Moderate)	B	48.4	100	90%, Meet Applicable SGC/AGC	90%	2.42	Not Modeled [(9)]	Not Modeled [(9)]	93.2	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Nonane	111-84-2	Nonane_111-84-2	N	Low	C	6.90E-02	100	Meet Applicable SGC/AGC	0%	3.45E-03	Not Modeled [(9)]	Not Modeled [(9)]	2.49	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	3,6-Diazaoctanethylenediamin (Triethylenetetramine)_112-24-3	N	Moderate	B	2.38	100	Meet Applicable SGC/AGC	0%	0.119	0.119	1.50E-02	106	1.21E-02	1.53E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Precipitated silica	112926-00-8	Precipitated silica_112926-00-8	N	(Moderate)	B	8.64E-02	100	Meet Applicable SGC/AGC	0%	4.32E-03	Not Modeled [(9)]	Not Modeled [(9)]	2.57	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Mica	12001-26-2	Mica_12001-26-2	N	(Moderate)	B	0.456	100	Meet Applicable SGC/AGC	0%	4.56E-03	4.56E-03	5.74E-04	0.175	2.00E-05	2.52E-06
U-BOOTH	See Note 6	0002C	STCK_2C	1	Dipotassium oxide	12136-45-7	Dipotassium oxide_12136-45-7	N	(Moderate)	B	0.128	100	Meet Applicable SGC/AGC	0%	1.28E-03	Not Modeled [(9)]	Not Modeled [(9)]	0.475	Not Modeled [(9)]	Not Modeled [(9)]

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [(1), (2)]	Assigned Env. Rating (ER) [(1)]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Hourly Emission Rate (g/s) [(3)]	Proposed Allowable Annual Emissions (lbs/yr) [(3)]	Modeled Annual Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Annual Emission Rate (g/s) [(3)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Quaternary ammonium modified bentonite	121888-68-4	Quaternary ammonium modified bentonite_121888-68-4	N	(Moderate)	B	0.842	n/a	Meet Applicable SGC/AGC	0%	8.42E-03	8.42E-03	1.06E-03	0.324	3.70E-05	4.66E-06
U-BOOTH	See Note 6	0002C	STCK_2C	1	n-Butyl acetate	123-86-4	n-Butyl acetate_123-86-4	N	Low	C	44.9	100	75%, Meet Applicable SGC/AGC	75%	2.24	2.24	0.283	872	9.95E-02	1.25E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Zinc oxide	1314-13-2	Zinc oxide_1314-13-2	N	Moderate	B	11.9	100	90%, Meet Applicable SGC/AGC	90%	0.119	Not Modeled [(9)]	Not Modeled [(9)]	53.3	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Zirconium dioxide	1314-23-4	Zirconium dioxide_1314-23-4	N	(Moderate)	B	0.359	100	Meet Applicable SGC/AGC	0%	3.59E-03	Not Modeled [(9)]	Not Modeled [(9)]	3.50	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Lead compounds (Lead Tetraoxide)	1314-41-6	Lead compounds (Lead Tetraoxide)_1314-41-6	Y	High	A	1.19E-03	5	Meet Applicable SGC/AGC	0%	1.19E-05	Not Modeled [(9)]	Not Modeled [(9)]	4.41E-03	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Phosphorus pentoxide	1314-56-3	Phosphorus pentoxide_1314-56-3	N	(Moderate)	B	1.01	100	Meet Applicable SGC/AGC	0%	5.07E-02	Not Modeled [(9)]	Not Modeled [(9)]	18.8	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Limestone	1317-65-3	Limestone_1317-65-3	N	(Moderate)	B	50.0	100	90%, Meet Applicable SGC/AGC	90%	0.500	0.500	6.30E-02	333	3.80E-02	4.79E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Zeolites	1318-02-1	Zeolites_1318-02-1	N	(Moderate)	B	0.263	n/a	Meet Applicable SGC/AGC	0%	2.63E-03	2.63E-03	3.31E-04	1.56	1.79E-04	2.25E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	Xylene	1330-20-7	Xylene_1330-20-7	N	Moderate	B	93.0	100	90%, Meet Applicable SGC/AGC	90%	4.65	4.65	0.586	5168	0.590	7.43E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Kaolin (Clay)	1332-58-7	Kaolin (Clay)_1332-58-7	N	(Moderate)	B	20.7	100	90%, Meet Applicable SGC/AGC	90%	0.207	0.207	2.61E-02	7.97	9.10E-04	1.15E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Carbon black	1333-86-4	Carbon black_1333-86-4	N	Moderate	B	3.29E-02	100	Meet Applicable SGC/AGC	0%	3.29E-04	Not Modeled [(9)]	Not Modeled [(9)]	5.05E-02	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Aluminum oxide	1344-28-1	Aluminum oxide_1344-28-1	N	(Moderate)	B	0.768	100	Meet Applicable SGC/AGC	0%	7.68E-03	7.68E-03	9.68E-04	2.85	3.25E-04	4.10E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	Titanium dioxide	13463-67-7	Titanium dioxide_13463-67-7	N	(Moderate)	B	34.3	100	90%, Meet Applicable SGC/AGC	90%	0.343	0.343	4.32E-02	328	3.75E-02	4.72E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	m-Xylylene-diamine (Xylene Diamine, Meta-)	1477-55-0	m-Xylylene-diamine (Xylene Diamine, Meta-)_1477-55-0	N	(Moderate)	B	1.84	n/a	Meet Applicable SGC/AGC	0%	9.21E-02	9.21E-02	1.16E-02	44.3	5.05E-03	6.37E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Talc (non-asbestiform)	14807-96-6	Talc (non-asbestiform)_14807-96-6	N	(Moderate)	B	23.6	100	90%, Meet Applicable SGC/AGC	90%	0.236	0.236	2.98E-02	108	1.23E-02	1.56E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Respirable quartz	14808-60-7	Respirable quartz_14808-60-7	N	(Moderate)	B	2.13	100	Meet Applicable SGC/AGC	0%	2.13E-02	2.13E-02	2.68E-03	17.9	2.05E-03	2.58E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	2-Methoxypropanol	1589-47-5	2-Methoxypropanol_1589-47-5	N	(Moderate)	B	0.222	100	Meet Applicable SGC/AGC	0%	1.11E-02	Not Modeled [(9)]	Not Modeled [(9)]	2.12	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	1,6-Hexanediol diglycidylether	16096-31-4	1,6-Hexanediol diglycidylether_16096-31-4	N	(Moderate)	B	14.9	100	90%, Meet Applicable SGC/AGC	90%	0.149	Not Modeled [(9)]	Not Modeled [(9)]	71.5	Not Modeled [(9)]	Not Modeled [(9)]

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [1], [2]	Assigned Env. Rating (ER) [1]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [3]	Multi-Chem Modeled Hourly Emission Rate (g/s) [3]	Proposed Allowable Annual Emissions (lbs/yr) [3]	Modeled Annual Emission Rate (lb/hr) [3]	Multi-Chem Modeled Annual Emission Rate (g/s) [3]
U-BOOTH	See Note 6	0002C	STCK_2C	1	4,6-Dimethyl-2-heptanone	19549-80-5	4,6-Dimethyl-2-heptanone_19549-80-5	N	(Moderate)	B	0.234	100	Meet Applicable SGC/AGC	0%	1.17E-02	Not Modeled [9]	Not Modeled [9]	5.62	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Iron hydroxide oxide	20344-49-4	Iron hydroxide oxide_20344-49-4	N	(Moderate)	B	7.53E-02	100	Meet Applicable SGC/AGC	0%	7.53E-04	Not Modeled [9]	Not Modeled [9]	0.116	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Aluminium hydroxide	21645-51-2	Aluminium hydroxide_21645-51-2	N	(Moderate)	B	0.897	100	Meet Applicable SGC/AGC	0%	8.97E-03	Not Modeled [9]	Not Modeled [9]	9.22	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Bisphenol A-(epichlorhydrin) epoxy resin	25068-38-6	Bisphenol A-(epichlorhydrin) epoxy resin_25068-38-6	N	(Moderate)	B	52.1	100	90%, Meet Applicable SGC/AGC	90%	0.521	0.521	6.56E-02	689	7.86E-02	9.91E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	3-(2,3-Epoxypropoxy) propyl trimethoxy silane_2530-83-8	N	(Moderate)	B	4.32	100	Meet Applicable SGC/AGC	0%	0.216	0.216	2.72E-02	308	3.52E-02	4.43E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Hexamethylene-1,6-diisocyanate homopolymer (HDI Homopolymer)	28182-81-2	Hexamethylene-1,6-diisocyanate homopolymer (HDI Homopolymer)_28182-81-2	Y	High	A	10.0	100	99%, Meet Applicable SGC/AGC	99%	0.100	Not Modeled [9]	Not Modeled [9]	37.2	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Nepheline syenite	37244-96-5	Nepheline syenite_37244-96-5	N	(Moderate)	B	51.6	n/a	90%, Meet Applicable SGC/AGC	90%	0.516	0.516	6.50E-02	382	4.36E-02	5.49E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	bis (1,2,2,6,6-Pentamethyl-4-piperidyl) sebacate	41556-26-7	bis (1,2,2,6,6-Pentamethyl-4-piperidyl) sebacate_41556-26-7	N	(Moderate)	B	1.28	100	Meet Applicable SGC/AGC	0%	6.39E-02	Not Modeled [9]	Not Modeled [9]	23.7	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	1,2,3-Trimethylbenzene	526-73-8	1,2,3-Trimethylbenzene_526-73-8	N	Moderate	B	4.98	100	Meet Applicable SGC/AGC	0%	0.249	0.249	3.14E-02	132	1.51E-02	1.90E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Dodecamethylcyclohexasiloxane (D6)	540-97-6	Dodecamethylcyclohexasiloxane (D6)_540-97-6	N	(Moderate)	B	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	Not Modeled [9]	Not Modeled [9]	2.07E-02	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Decamethylcyclopentasiloxane (D5)	541-02-6	Decamethylcyclopentasiloxane (D5)_541-02-6	N	Low	C	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	Not Modeled [9]	Not Modeled [9]	2.07E-02	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Octamethylcyclotetrasiloxane (D4)	556-67-2	Octamethylcyclotetrasiloxane (D4)_556-67-2	N	Moderate	B	8.59E-04	100	Meet Applicable SGC/AGC	0%	4.30E-05	Not Modeled [9]	Not Modeled [9]	2.07E-02	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Stearic acid	57-11-4	Stearic acid_57-11-4	N	(Moderate)	B	10.6	100	90%, Meet Applicable SGC/AGC	90%	0.532	0.532	6.70E-02	354	4.05E-02	5.10E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Propyleneglycol (Propanediol, 1,2-)	57-55-6	Propyleneglycol (Propanediol, 1,2-)_57-55-6	N	Moderate	B	0.174	100	Meet Applicable SGC/AGC	0%	8.68E-03	Not Modeled [9]	Not Modeled [9]	3.46	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	1-Ethyl-2-methylbenzene	611-14-3	1-Ethyl-2-methylbenzene_611-14-3	N	(Moderate)	B	1.34	100	Meet Applicable SGC/AGC	0%	6.68E-02	Not Modeled [9]	Not Modeled [9]	35.0	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	2-Methylstyrene	611-15-4	2-Methylstyrene_611-15-4	N	(Moderate)	B	6.30E-04	100	Meet Applicable SGC/AGC	0%	3.15E-05	Not Modeled [9]	Not Modeled [9]	4.85E-03	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Ethanol + Ethanol (formed by reaction)	64-17-5	Ethanol + Ethanol (formed by reaction)_64-17-5	N	Low	C	62.6	100	75%, Meet Applicable SGC/AGC	75%	3.13	3.13	0.394	120	1.37E-02	1.73E-03

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [(1), (2)]	Assigned Env. Rating (ER) [(1)]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Hourly Emission Rate (g/s) [(3)]	Proposed Allowable Annual Emissions (lbs/yr) [(3)]	Modeled Annual Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Annual Emission Rate (g/s) [(3)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)	64742-48-9	C10-C13 hydrocarbons (n-alkanes, isoalkanes, cyclics) <2% aromatics (Naphtha Hydrotreated Heavy)_64742-48-9	N	Moderate	B	0.591	100	Meet Applicable SGC/AGC	0%	2.96E-02	Not Modeled [(9)]	Not Modeled [(9)]	21.3	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	White spirit (Naphtha Medium Aliphatic)	64742-88-7	White spirit (Naphtha Medium Aliphatic)_64742-88-7	N	Moderate	B	1.04	100	Meet Applicable SGC/AGC	0%	5.21E-02	Not Modeled [(9)]	Not Modeled [(9)]	12.8	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)	64742-95-6	Solvent naphtha (petroleum), light arom. (Naphtha Light Aromatic)_64742-95-6	N	Moderate	B	56.5	100	90%, Meet Applicable SGC/AGC	90%	2.83	2.83	0.356	1223	0.140	1.76E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Glass beads	65997-17-3	Glass beads_65997-17-3	N	(Moderate)	B	14.1	100	90%, Meet Applicable SGC/AGC	90%	0.141	Not Modeled [(9)]	Not Modeled [(9)]	84.5	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Methanol + Methanol (formed by reaction)	67-56-1	Methanol + Methanol (formed by reaction)_67-56-1	N	Moderate	B	1.79	100	Meet Applicable SGC/AGC	0%	8.96E-02	8.96E-02	1.13E-02	128	1.46E-02	1.84E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Propan-2-ol (Isopropyl Alcohol)	67-63-0	Propan-2-ol (Isopropyl Alcohol)_67-63-0	N	Moderate	B	24.1	100	90%, Meet Applicable SGC/AGC	90%	1.21	Not Modeled [(9)]	Not Modeled [(9)]	46.4	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Fatty acids, c18-unsatd., dimers, polymers with triethylenetetramine, reaction products with poly (bisphenol a diglycidyl ether)	68424-41-9	Fatty acids, c18-unsatd., dimers, polymers with triethylenetetramine, reaction products with poly (bisphenol a diglycidyl ether)_68424-41-9	N	(Moderate)	B	46.5	n/a	90%, Meet Applicable SGC/AGC	90%	2.33	2.33	0.293	358	4.08E-02	5.15E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Feldspar-group minerals	68476-25-5	Feldspar-group minerals_68476-25-5	N	(Moderate)	B	0.342	100	Meet Applicable SGC/AGC	0%	3.42E-03	Not Modeled [(9)]	Not Modeled [(9)]	0.131	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Methylstyrenated phenol	68512-30-1	Methylstyrenated phenol_68512-30-1	N	(Moderate)	B	30.0	n/a	90%, Meet Applicable SGC/AGC	90%	1.50	1.50	0.189	231	2.63E-02	3.32E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs._68609-97-2	N	(Moderate)	B	66.7	100	90%, Meet Applicable SGC/AGC	90%	3.34	3.34	0.420	2471	0.282	3.55E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Amorphous silica	68611-44-9	Amorphous silica_68611-44-9	N	(Moderate)	B	0.651	100	Meet Applicable SGC/AGC	0%	6.51E-03	Not Modeled [(9)]	Not Modeled [(9)]	0.250	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Salicylic acid	69-72-7	Salicylic acid_69-72-7	N	(Moderate)	B	0.336	n/a	Meet Applicable SGC/AGC	0%	3.36E-03	3.36E-03	4.23E-04	2.03	2.32E-04	2.92E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	2-Methoxypropyl acetate	70657-70-4	2-Methoxypropyl acetate_70657-70-4	N	(Moderate)	B	3.55E-03	100	Meet Applicable SGC/AGC	0%	1.77E-04	Not Modeled [(9)]	Not Modeled [(9)]	2.73E-02	Not Modeled [(9)]	Not Modeled [(9)]

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [(1), (2)]	Assigned Env. Rating (ER) [(1)]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Hourly Emission Rate (g/s) [(3)]	Proposed Allowable Annual Emissions (lbs/yr) [(3)]	Modeled Annual Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Annual Emission Rate (g/s) [(3)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with bentonite and bis(hydrogenated tallow alkyl)dimethylammonium chlorides	71011-25-1	Quaternary ammonium compounds, benzyl(hydrogenated tallow alkyl)dimethyl, chlorides, compds. with bentonite and bis(hydrogenated tallow alkyl)dimethylammonium chlorides_71011-25-1	N	(Moderate)	B	2.17	n/a	Meet Applicable SGC/AGC	0%	2.17E-02	2.17E-02	2.73E-03	12.90	1.47E-03	1.86E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	bis[(Dimethylamino)methyl]phenol	71074-89-0	bis[(Dimethylamino)methyl]phenol_71074-89-0	N	(Moderate)	B	2.12	n/a	Meet Applicable SGC/AGC	0%	0.106	0.106	1.34E-02	112	1.28E-02	1.61E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	n-Butanol (N-Butyl Alcohol)	71-36-3	n-Butanol (N-Butyl Alcohol)_71-36-3	N	Low	C	42.3	100	75%, Meet Applicable SGC/AGC	75%	2.12	2.12	0.267	2096	0.239	3.01E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Benzene [(8)]	71-43-2	Benzene (8)_71-43-2	Y	High	A	6.74E-02	100	Meet Applicable SGC/AGC	0%	3.38E-03	Not Modeled [(9)]	Not Modeled [(9)]	5.38	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Lead [(8)]	7439-92-1	Lead (8)_7439-92-1	Y	High	A	1.44E-03	5	HTAC Mass Emission Limit	0%	1.44E-03	Not Modeled [(9)]	Not Modeled [(9)]	0.563	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Manganese [(8)]	7439-96-5	Manganese (8)_7439-96-5	Y	High	A	0.00E+00	10	Meet Applicable SGC/AGC, conduct TIA	0%	2.66E-06	2.66E-06	3.35E-07	2.33E-02	2.66E-06	3.35E-07
U-BOOTH	See Note 6	0002C	STCK_2C	1	Cadmium [(8)]	7440-43-9	Cadmium (8)_7440-43-9	Y	High	A	0.00E+00	1	Meet Applicable SGC/AGC	0%	7.70E-06	7.70E-06	9.70E-07	6.75E-02	7.70E-06	9.70E-07
U-BOOTH	See Note 6	0002C	STCK_2C	1	Chromium [(8)]	7440-47-3	Chromium (8)_7440-47-3	Y	High	A	0.00E+00	250	Meet Applicable SGC/AGC	0%	9.80E-06	Not Modeled [(9)]	Not Modeled [(9)]	8.58E-02	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Nickel [(8)]	7440-02-0	Nickel (8)_7440-02-0	Y	High	A	0.00E+00	10	Meet Applicable SGC/AGC	0%	1.47E-05	1.47E-05	1.85E-06	0.129	1.47E-05	1.85E-06
U-BOOTH	See Note 6	0002C	STCK_2C	1	Zinc powder - zinc dust (stabilized)	7440-66-6	Zinc powder - zinc dust (stabilized)_7440-66-6	N	Low	C	186	100	75%, Meet Applicable SGC/AGC	75%	1.86	1.86	0.234	834	9.52E-02	1.20E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	Silicon dioxide	7631-86-9	Silicon dioxide_7631-86-9	N	(Moderate)	B	0.359	100	Meet Applicable SGC/AGC	0%	3.59E-03	Not Modeled [(9)]	Not Modeled [(9)]	3.50	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Zinc chloride	7646-85-7	Zinc chloride_7646-85-7	N	Moderate	B	0.342	100	Meet Applicable SGC/AGC	0%	3.42E-03	Not Modeled [(9)]	Not Modeled [(9)]	0.131	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Hydrogen chloride	7647-01-0	Hydrogen chloride_7647-01-0	N	Moderate	B	8.77E-02	100	Meet Applicable SGC/AGC	0%	8.77E-02	Not Modeled [(9)]	Not Modeled [(9)]	3.37	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Barium sulfate	7727-43-7	Barium sulfate_7727-43-7	N	Moderate	B	12.0	100	Meet Applicable SGC/AGC	0%	0.120	Not Modeled [(9)]	Not Modeled [(9)]	44.5	Not Modeled [(9)]	Not Modeled [(9)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Dibutyltin dilaurate	77-58-7	Dibutyltin dilaurate_77-58-7	N	(Moderate)	B	2.45E-02	100	Meet Applicable SGC/AGC	0%	2.45E-04	Not Modeled [(9)]	Not Modeled [(9)]	9.08E-02	Not Modeled [(9)]	Not Modeled [(9)]

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [1], [2]	Assigned Env. Rating (ER) [1]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [3]	Multi-Chem Modeled Hourly Emission Rate (g/s) [3]	Proposed Allowable Annual Emissions (lbs/yr) [3]	Modeled Annual Emission Rate (lb/hr) [3]	Multi-Chem Modeled Annual Emission Rate (g/s) [3]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Trizinc bis(orthophosphate)	7779-90-0	Trizinc bis(orthophosphate)_7779-90-0	N	(Moderate)	B	1.16	100	Meet Applicable SGC/AGC	0%	1.16E-02	Not Modeled [9]	Not Modeled [9]	4.31	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Pigment black 10, 77265 (Graphite)	7782-42-5	Pigment black 10, 77265 (Graphite)_7782-42-5	N	(Moderate)	B	1.93	100	Meet Applicable SGC/AGC	0%	1.93E-02	1.93E-02	2.43E-03	11.5	1.31E-03	1.65E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Trimethylolpropane	77-99-6	Trimethylolpropane_77-99-6	N	(Moderate)	B	1.01	100	Meet Applicable SGC/AGC	0%	5.07E-02	Not Modeled [9]	Not Modeled [9]	18.8	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	2-Methylpropan-1-ol (Isobutyl Alcohol)_78-83-1	N	(Moderate)	B	0.174	100	Meet Applicable SGC/AGC	0%	8.68E-03	8.68E-03	1.09E-03	3.46	3.95E-04	4.98E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	Hydrogenated castor oil	8001-78-3	Hydrogenated castor oil_8001-78-3	N	(Moderate)	B	8.14	n/a	Meet Applicable SGC/AGC	0%	8.14E-02	8.14E-02	1.03E-02	39.1	4.47E-03	5.63E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Lecithin	8002-43-5	Lecithin_8002-43-5	N	(Moderate)	B	0.160	n/a	Meet Applicable SGC/AGC	0%	1.60E-03	1.60E-03	2.01E-04	0.592	6.76E-05	8.52E-06
U-BOOTH	See Note 6	0002C	STCK_2C	1	4,4'-Isopropylidenediphenol	80-05-7	4,4'-Isopropylidenediphenol_80-05-7	N	(Moderate)	B	5.16E-02	100	Meet Applicable SGC/AGC	0%	5.16E-04	Not Modeled [9]	Not Modeled [9]	0.516	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	C12-14 Alcohols	80206-82-2	C12-14 Alcohols_80206-82-2	N	(Moderate)	B	1.36	100	Meet Applicable SGC/AGC	0%	6.82E-02	6.82E-02	8.59E-03	50.5	5.76E-03	7.26E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Hexamethylene-di-isocyanate (HDI)	822-06-0	Hexamethylene-di-isocyanate (HDI)_822-06-0	Y	High	A	0.134	100	Meet Applicable SGC/AGC	0%	6.71E-03	Not Modeled [9]	Not Modeled [9]	2.49	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	82919-37-7	Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate_82919-37-7	N	(Moderate)	B	0.320	100	Meet Applicable SGC/AGC	0%	0.320	0.320	4.03E-02	119	1.35E-02	1.71E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Polyoxypropylenediamine	9046-10-0	Polyoxypropylenediamine_9046-10-0	N	(Moderate)	B	39.4	100	90%, Meet Applicable SGC/AGC	90%	1.97	1.97	0.248	947	0.108	1.36E-02
U-BOOTH	See Note 6	0002C	STCK_2C	1	2,4,6-tris(Dimethylaminomethyl) phenol	90-72-2	2,4,6-tris(Dimethylaminomethyl)phenol_90-72-2	N	(Moderate)	B	12.0	n/a	90%, Meet Applicable SGC/AGC	90%	0.601	0.601	7.57E-02	636	7.26E-02	9.15E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Naphthalene [8]	91-20-3	Naphthalene (8)_91-20-3	N	Moderate	B	4.47E-02	100	Meet Applicable SGC/AGC	0%	2.25E-03	Not Modeled [9]	Not Modeled [9]	0.973	Not Modeled [9]	Not Modeled [9]
U-BOOTH	See Note 6	0002C	STCK_2C	1	1,2,4-Trimethylbenzene	95-63-6	1,2,4-Trimethylbenzene_95-63-6	N	Moderate	B	14.5	100	90%, Meet Applicable SGC/AGC	90%	0.725	0.725	9.13E-02	383	4.37E-02	5.51E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Cumene	98-82-8	Cumene_98-82-8	N	(Moderate)	B	0.679	100	Meet Applicable SGC/AGC	0%	3.40E-02	3.40E-02	4.28E-03	17.9	2.05E-03	2.58E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	2-Phenylpropene (Methyl Styrene)	98-83-9	2-Phenylpropene (Methyl Styrene)_98-83-9	N	(Moderate)	B	0.151	100	Meet Applicable SGC/AGC	0%	7.57E-03	7.57E-03	9.54E-04	1.16	1.33E-04	1.67E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	1,3-bis(12-Hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	1,3-bis(12-Hydroxyocta-decanamide-N-methyle) benzene_128554-52-9	N	(Moderate)	B	3.53	n/a	Meet Applicable SGC/AGC	0%	0.176	0.176	2.22E-02	183	2.09E-02	2.64E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Acrylic resin	CBI	Acrylic resin_CBI	N	(Moderate)	B	28.0	100	90%, Meet Applicable SGC/AGC	90%	0.280	0.280	3.53E-02	104	1.19E-02	1.49E-03

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [(1), (2)]	Assigned Env. Rating (ER) [(1)]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Hourly Emission Rate (g/s) [(3)]	Proposed Allowable Annual Emissions (lbs/yr) [(3)]	Modeled Annual Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Annual Emission Rate (g/s) [(3)]
U-BOOTH	See Note 6	0002C	STCK_2C	1	Alkyd resin	CBI	Alkyd resin_CBI	N	(Moderate)	B	0.393	n/a	Meet Applicable SGC/AGC	0%	3.93E-03	3.93E-03	4.95E-04	2.83	3.23E-04	4.07E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	Block copolymer	CBI	Block copolymer_CBI	N	(Moderate)	B	0.240	n/a	Meet Applicable SGC/AGC	0%	2.40E-03	2.40E-03	3.02E-04	0.890	1.02E-04	1.28E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	Fluoro polysiloxane	CBI	Fluoro polysiloxane_CBI	N	(Moderate)	B	1.84E-03	100	Meet Applicable SGC/AGC	0%	1.84E-05	1.84E-05	2.32E-06	8.87E-03	1.01E-06	1.28E-07
U-BOOTH	See Note 6	0002C	STCK_2C	1	Polyamineamide salt	CBI	Polyamineamide salt_CBI	N	(Moderate)	B	0.434	n/a	Meet Applicable SGC/AGC	0%	4.34E-03	4.34E-03	5.47E-04	1.73	1.98E-04	2.49E-05
U-BOOTH	See Note 6	0002C	STCK_2C	1	Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidylester and bisphenol A-(epichlorhydrin) epoxy resin	CBI	Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidylester and bisphenol A-(epichlorhydrin) epoxy resin_CBI	N	(Moderate)	B	13.3	100	90%, Meet Applicable SGC/AGC	90%	0.133	0.133	1.68E-02	64.1	7.31E-03	9.21E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Polymer of: triethylenetetramine, polyaminoamide and bisphenol A-(epichlorhydrin) epoxy resin	CBI	Polymer of: triethylenetetramine, polyaminoamide and bisphenol A-(epichlorhydrin) epoxy resin_CBI	N	(Moderate)	B	17.3	n/a	90%, Meet Applicable SGC/AGC	90%	0.173	0.173	2.18E-02	133	1.52E-02	1.92E-03
U-BOOTH	See Note 6	0002C	STCK_2C	1	Polyolefins	CBI	Polyolefins_CBI	N	(Moderate)	B	6.52E-02	100	Meet Applicable SGC/AGC	0%	6.52E-04	6.52E-04	8.21E-05	0.160	1.82E-05	2.30E-06
U-BOOTH	See Note 6	0002C	STCK_2C	1	Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl)amino] hexyl] octadecanamide	CBI	Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadecanamide] and 12-hydroxy-N-[6-[1-oxoalkyl)amino] hexyl] octadecanamide_CBI	N	(Moderate)	B	1.51	n/a	Meet Applicable SGC/AGC	0%	1.51E-02	1.51E-02	1.90E-03	15.7	1.79E-03	2.26E-04
U-BOOTH	See Note 6	0002C	STCK_2C	1	Methyl Ethyl Ketone	78-93-3	Methyl Ethyl Ketone_78-93-3	N	Moderate	B	13.8	100	90%, Meet Applicable SGC/AGC	90%	0.690	0.690	8.69E-02	2014	0.230	2.90E-02
U-METAL	See Note 7	VNT4C	VENT_4C	1	Zinc powder - zinc dust (stabilized)	7440-66-6	Zinc powder - zinc dust (stabilized)_7440-66-6	N	Low	C	168	100	75%, Meet Applicable SGC/AGC	75%	1.68%	1.68%	0.21%	147	1.68E-02	2.11E-03
U-METAL	See Note 7	VNT4C	VENT_4C	1	Lead	7439-92-1	Lead_7439-92-1	Y	High	A	2.35E-03	5	HTAC Mass Emission Limit	0%	2.35E-07	Not Modeled [(9)]	Not Modeled [(9)]	2.06E-03	Not Modeled [(9)]	Not Modeled [(9)]
U-METAL	See Note 7	VNT4C	VENT_4C	1	Cadmium	7440-43-9	Cadmium_7440-43-9	Y	High	A	1.68E-04	1	Meet Applicable SGC/AGC	0%	1.68E-08	1.68E-08	2.12E-09	1.47E-04	1.68E-08	2.12E-09

Notes:

(1) From DAR-1 AGC/SGC Tables: H = High, M = Moderate, L = Low. In accordance with DAR-1 procedures, when assigning an initial Environmental Rating (ER) for each contaminant, an ER of "A" should be assigned to high toxicity contaminants; an ER of "B" should be assigned to moderate toxicity contaminants; an ER of "C" should be assigned to low toxicity contaminants; and, an ER of "D" should only be initially assigned to contamintants identified as simple asphyxiants.

(2) Per DAR-1 procedures, those air contaminants without a toxicity classification should be assigned a moderate toxicity classification. Thus, where a toxicity value has not been assigned in the AGC/SGC Tables, a moderate toxicity rating, denoted as "(moderate)", is shown. SGC and AGC which are not available are denoted as "(--)".

(3) Modeled Emission Rate represents the potential emission rate per emission point/stack. For example, for a process emission source with three (3) emission points, the potential emissions from the process are divided by 3 for purposes of air dispersion modeling.

(4) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: MACHINING_A, WELD_A, GRIND_A. U-MFR_A (Building A ventilation system) fabric filter control efficiency = 99%.

(5) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: MACHINING_B, WELD_B, GRIND_B. U-MFR_B (Building B ventilation system) fabric filter control efficiency = 99%.

Point Source Non-Criteria Air Contaminant Emissions Summary

Emission Unit	Emission Source	Emission Point	Modeled Source ID	No. of Exhaust Stacks	Contaminant Name	CAS No.	CONCATENATE	HTAC?	NYSDEC DAR-1 Toxicity Level [(1), (2)]	Assigned Env. Rating (ER) [(1)]	Emission Rate Potential (ERP) (lb/hr)	Mass Emission Limit (lbs/yr)	Air Cleaning Requirements of Table 4 of 212-2.3	Required Minimum Control Efficiency (%) [Table 4 of 212-2.3]	Proposed Allowable Hourly Emission Rate (lb/hr)	Modeled Hourly Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Hourly Emission Rate (g/s) [(3)]	Proposed Allowable Annual Emissions (lbs/yr) [(3)]	Modeled Annual Emission Rate (lb/hr) [(3)]	Multi-Chem Modeled Annual Emission Rate (g/s) [(3)]

(6) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: MANUAL_P1-2, AUTO_P1-2, PBTHFLTR_A-D, OVEN_A-D, RTO_1. U-BOOTH VOC control efficiency = 95%. U-BOOTH fabric filter control efficiency = 99%.

(7) Includes the following emission sources/controls (as defined in the Applicant's NYSDEC Air State Facility Permit Application: METALLIZING, METALFLTR. U-METAL fabric filter control efficiency = 99%. In addition, Building C ventilation system's VENT 4C (VNT4C) will be equipped with a fabric filter achieving 99% of particulates from metallization activities. Thus, the overall control efficiency of the staged filtration system will be 99.99%.

(8) Air contaminant proposed allowable and modeled emission rates include contributions from the process emission source (surface coating) and/or as well as the combustion-related emissions from the control device (recuperative thermal oxidizer) due to the combustion of natural gas.

(9) Chemical (VOC) excepted per 212-1.4(l)(1) and/or below respective HTAC Mass Emission Limits specified in Table 2 of 212-2 or the generic non-HTAC Mass Emission Limit (< 100 lbs/yr).

Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 212 Process Operations
Part 212 Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Summary of Maximum Predicted Hourly and Annual Non-Criteria Air Contaminant Impacts at/or Beyond Fence Line (Including Ezra Prentice (EJ Community))

Non-Criteria Air Contaminant	Air Contaminant CAS	Maximum 1-Hr Impact ($\mu g/m^3$)	Maximum Annual Impact ($\mu g/m^3$)	Maximum 1-Hr Impact at Ezra Prentice (EJ Community) ($\mu g/m^3$)	Maximum Annual Impact at Ezra Prentice (EJ Community) ($\mu g/m^3$)	NYSDEC DAR-1 SGC ($\mu g/m^3$)	NYSDEC DAR-1 AGC ($\mu g/m^3$)
1,2,3-Trimethylbenzene	526-73-8	2.92	1.06E-02	0.16	2.30E-04	--	60.0
1,2,4-Trimethylbenzene	95-63-6	8.49	3.08E-02	0.45	6.70E-04	--	60.0
1,3-bis(12-Hydroxyocta-decanamide-N-methyle) benzene	128554-52-9	2.07	1.47E-02	0.11	3.20E-04	27	0.13
2-Methylpropan-1-ol (Isobutyl Alcohol)	78-83-1	0.10	2.80E-04	5.42E-03	1.00E-05	--	360.0
2-Phenylpropene (Methyl Styrene)	98-83-9	8.87E-02	9.00E-05	4.73E-03	0.00E+00	--	115.0
2,4,6-tris(Dimethylaminomethyl)phenol	90-72-2	7.04	5.11E-02	0.37	1.11E-03	(--)	1.0E-02 *
2,6-Dimethylheptan-4-one (Diisobutyl Ketone)	108-83-8	0.37	1.21E-03	1.95E-02	3.00E-05	--	350.0
3-(2,3-Epoxypropoxy) propyl trimethoxy silane	2530-83-8	2.53	2.47E-02	0.13	5.40E-04	--	15.0
3,6-Diazaoctanethylenediamin (Triethylenetetramine)	112-24-3	1.39	8.54E-03	7.42E-02	1.90E-04	--	10.0
Acrylic resin	**CBI**	3.28	8.32E-03	0.17	1.80E-04	17000.0	26.0
Alkyd resin	**CBI**	4.60E-02	2.30E-04	2.45E-03	0.00E+00	(--)	1.0E-02
Allyl glycidyl ether	106-92-3	2.52E-03	2.00E-05	1.30E-04	0.00E+00	--	11.0
Aluminium oxide	1344-28-1	9.01E-02	4.60E-04	5.32E-03	3.00E-05	--	2.4
Benzaldehyde	100-52-7	3.87E-02	1.30E-04	2.06E-03	0.00E+00	470	0.45
Benzyl alcohol	100-51-6	20.3	6.68E-02	1.08	1.46E-03	1300.0	350
bis[(Dimethylamino)methyl]phenol	71074-89-0	1.25	8.99E-03	6.64E-02	2.00E-04	--	1.0E-02
Bisphenol A-(epichlorhydrin) epoxy resin	25068-38-6	6.10	5.53E-02	0.32	1.21E-03	(--)	1.4
Block copolymer	**CBI**	2.81E-02	7.00E-05	1.50E-03	0.00E+00	(--)	1.0E-02
C12-14 Alcohols	80206-82-2	0.80	4.05E-03	4.26E-02	9.00E-05	--	1.9
Cadmium	7440-43-9	1.66E-03	6.00E-05	2.50E-04	0.00E+00	--	2.40E-04
Calcium Carbonate	16389-88-1	3.66E-03	5.00E-05	3.20E-04	0.00E+00	(--)	1.0E-02
Cryolite	13775-53-6	6.28E-03	9.00E-05	5.50E-04	1.00E-05	9.76	0.12
Cumene	98-82-8	0.40	1.44E-03	2.12E-02	3.00E-05	--	400.0
Cured phenolic resin	9003-35-4	7.87E-03	1.10E-04	6.90E-04	1.00E-05	30	6.0E-02
Ethanol + Ethanol (formed by reaction)	64-17-5	36.7	9.66E-03	1.95	2.10E-04	--	45000.0
Ethylbenzene	100-41-4	12.1	9.17E-02	0.64	2.00E-03	--	1000.0
Fatty acids, c18-unsatd., dimers, polymers with triethylenetetra	68424-41-9	27.3	2.88E-02	1.45	6.30E-04	(--)	1.0E-02 *
Fluoro polysiloxane	**CBI**	2.20E-04	0.00E+00	1.00E-05	0.00E+00	--	350.0
Heptan-2-one (Methyl Amyl Ketone)	110-43-0	4.33	4.56E-03	0.23	1.00E-04	--	550.0
Hydrogenated castor oil	8001-78-3	0.96	3.14E-03	5.10E-02	7.00E-05	--	1.0E-02

Summary of Maximum Predicted Hourly and Annual Non-Criteria Air Contaminant Impacts at/or Beyond Fence Line (Including Ezra Prentice (EJ Community))

Non-Criteria Air Contaminant	Air Contaminant CAS	Maximum 1-Hr Impact ($\mu g/m^3$)	Maximum Annual Impact ($\mu g/m^3$)	Maximum 1-Hr Impact at Ezra Prentice (EJ Community) ($\mu g/m^3$)	Maximum Annual Impact at Ezra Prentice (EJ Community) ($\mu g/m^3$)	NYSDEC DAR-1 SGC ($\mu g/m^3$)	NYSDEC DAR-1 AGC ($\mu g/m^3$)
Kaolin (Clay)	1332-58-7	2.43	6.40E-04	0.13	1.00E-05	--	4.8
Lecithin	8002-43-5	1.87E-02	5.00E-05	1.00E-03	0.00E+00	(--)	1.0E-02
Limestone	1317-65-3	5.86	2.67E-02	0.31	5.80E-04	(--)	0.1
Manganese	7439-96-5	2.11	1.49E-02	3.62E-02	3.80E-04	--	5.0E-02
Methanol	67-56-1	1.05	1.03E-02	5.60E-02	2.20E-04	33000.0	4000.0
Methyl ethyl ketone	78-93-3	8.08	0.16	0.43	3.53E-03	13000.0	5000.0
Methyl-1,2,2,6,6-pentamethyl-4-piperidylsebacate	82919-37-7	3.75	9.54E-03	0.20	2.10E-04	120	1.0
Methylstyrenated phenol	68512-30-1	17.6	1.85E-02	0.94	4.00E-04	(--)	1.0E-02 *
Mica	12001-26-2	5.34E-02	1.00E-05	2.84E-03	0.00E+00	--	7.1
Naphtha light aromatic	64742-95-6	30.2	9.82E-02	1.76	2.14E-03	--	100.0
n-Butanol (N-Butyl Alcohol)	71-36-3	24.8	0.17	1.32	3.67E-03	--	1500.0
n-Butyl acetate	123-86-4	26.3	6.98E-02	1.40	1.52E-03	71300.0	565.0
Nepheline syenite	37244-96-5	5.51	3.06E-02	0.32	6.70E-04	(--)	1.0E-02 *
Nickel	7440-02-0	0.05	1.60E-03	5.57E-03	6.00E-05	0.2	4.2E-03
Octadecanoic acid, 12-hydroxy-, reaction products with ethylen	100545-48-0	7.25E-02	2.60E-04	4.24E-03	1.00E-05	(--)	1.0E-02
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2	35.6	0.20	2.08	4.32E-03	--	1.4
Pigment black 10, 77265 (Graphite)	7782-42-5	0.21	9.20E-04	1.20E-02	2.00E-05	--	4.8
Polyamineamide salt	**CBI**	4.64E-02	1.40E-04	2.71E-03	0.00E+00	(--)	1.0E-02
Polymer of: m-Xylylene-diamine, (versatic acid) monoglycidyles	**CBI**	1.42	5.14E-03	8.32E-02	1.10E-04	(--)	1.0E-03 *
Polymer of: triethylenetetramine, polyaminoamide and bispher	**CBI**	1.85	1.07E-02	0.11	2.30E-04	(--)	1.0E-02 *
Polyolefins	**CBI**	6.96E-03	1.00E-05	4.10E-04	0.00E+00	--	100.0
Polyoxypropylenediamine	9046-10-0	21.0	7.59E-02	1.23	1.66E-03	93	1.1
Potassium Floroborate	14075-53-7	6.93E-03	9.00E-05	5.50E-04	1.00E-05	5.85	7.4E-02
Propylene glycol 1-methyl ether	107-98-2	43.2	5.66E-02	2.30	1.23E-03	36850.0	2000.0
Quaternary ammonium compounds, benzyl(hydrogenated tallo	71011-25-1	0.23	1.04E-03	1.35E-02	2.00E-05	(--)	1.0E-02
Quaternary ammonium modified bentonite	121888-68-4	8.99E-02	3.00E-05	5.25E-03	0.00E+00	(--)	1.0E-02
Reaction mass of N, N'-hexane-1,6-diylbis[12-Hydroxyoctadeca	**CBI**	0.16	1.26E-03	9.41E-03	3.00E-05	(--)	1.0E-02
Respirable quartz	14808-60-7	0.23	1.44E-03	1.33E-02	3.00E-05	--	2.0
Salicylic acid	69-72-7	3.59E-02	1.60E-04	2.10E-03	0.00E+00	(--)	1.0E-02
Stearic acid	57-11-4	5.68	2.85E-02	0.33	6.20E-04	--	7.1
Talc (non-asbestiform)	14807-96-6	2.53	8.69E-03	0.15	1.90E-04	--	4.8
Titanium dioxide	13463-67-7	3.66	2.64E-02	0.21	5.80E-04	--	24.0
Xylenes, m-, o-, & p- (mixed isomers)	1330-20-7	49.7	0.41	2.90	9.05E-03	22000.0	100.0
Xylene diamine, meta-	1477-55-0	1.08	3.56E-03	5.75E-02	8.00E-05	10.0	(0.1)
Zeolites	1318-02-1	2.81E-02	1.30E-04	1.64E-03	0.00E+00	(--)	1.0E-02

Summary of Maximum Predicted Hourly and Annual Non-Criteria Air Contaminant Impacts at/or Beyond Fence Line (Including Ezra Prentice (EJ Community))

Non-Criteria Air Contaminant	Air Contaminant CAS	Maximum 1-Hr Impact ($\mu g/m^3$)	Maximum Annual Impact ($\mu g/m^3$)	Maximum 1-Hr Impact at Ezra Prentice (EJ Community) ($\mu g/m^3$)	Maximum Annual Impact at Ezra Prentice (EJ Community) ($\mu g/m^3$)	NYSDEC DAR-1 SGC ($\mu g/m^3$)	NYSDEC DAR-1 AGC ($\mu g/m^3$)
Zinc powder - zinc dust (stabilized)	7440-66-6	20	0.08	1.2	2.71E-03	--	45.0

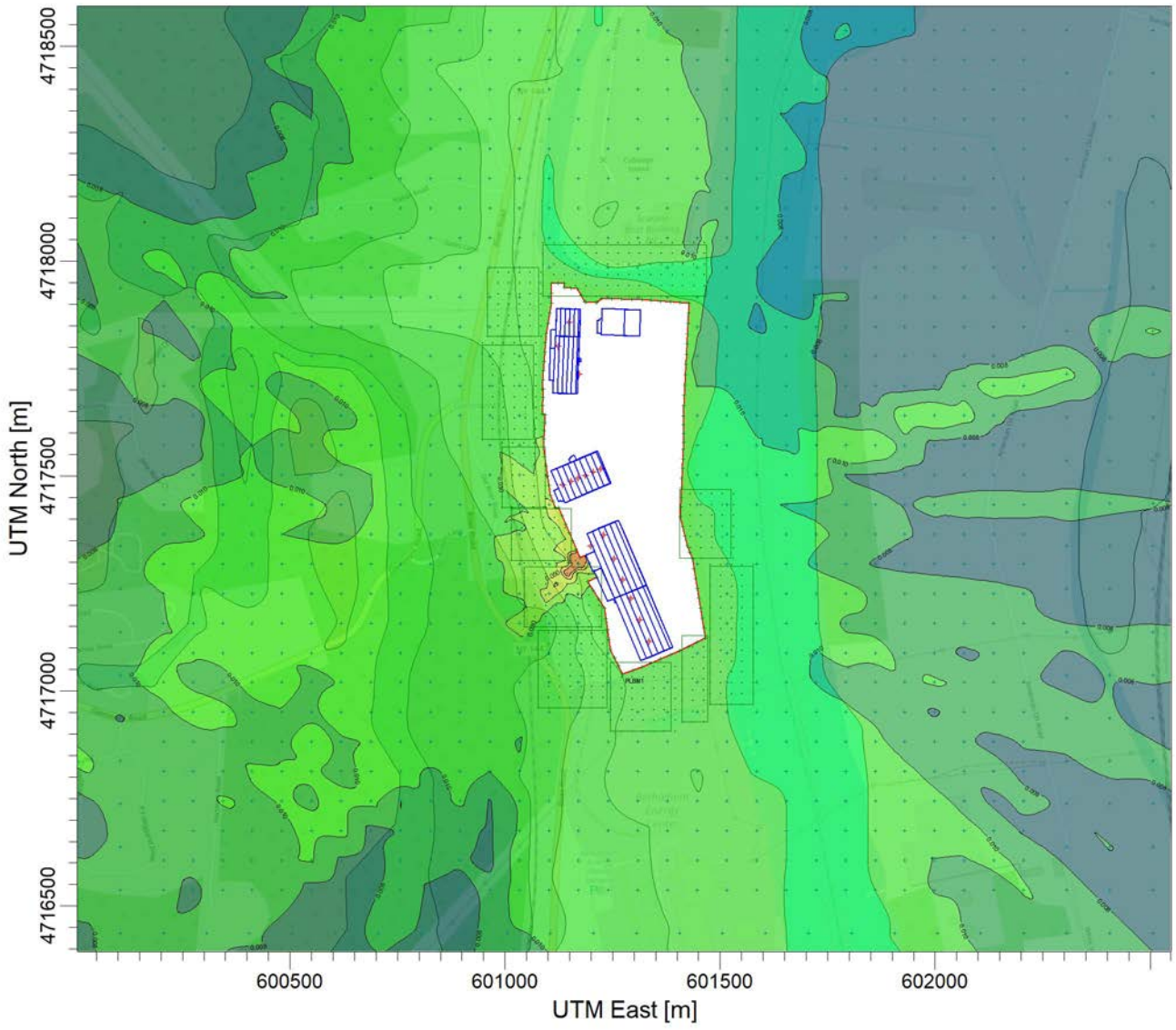
Table Notes:

(1) Per DAR-1 procedures, air contaminants that currently do not have an AGC assigned to them should be evaulated based upon a de minimus concentration of 0.1 $\mu g/m^3$. The 0.1 $\mu g/m^3$ concentration is to be used as a first-time conservative approach to evaluate the dispersion of the air contaminant. (If this occurs, the permit writer should forward the air contaminant's CAS registry number to the Air Toxics Section (ATS), within DAR, for the development of an AGC). SGC which are not assigned are denoted as "--" or "(--)". AGC which are not assigned are denoted as "(0.1)".

* Per DAR-1 guidance, in the case where the "Degree of Air Cleaning Required" by Table 4 of 212-2.3 is demonstrated but the off-site concentrations exceed the AGC, the off-site concentration must be within the allowable acceptable risk management range. The acceptable residual risk management range for process emission source's and/or emission point's must be less than 10-in-a-million cancer risk for those non-criteria air contaminants identified as carcinogens or less than a hazard index of 2 for non-carcinogen non-criteria air contaminants. Since control efficiency requirements specified in Table 4 of 212-2.3 will be achieved as part of the proposed project, NYSDEC has considered the upper limit of the acceptable risk management range. Due to the conservative derivation methods the NYSDEC used for assigning these interim AGCs having this notation, which resulted in those values being less than many established AGCs based on the carcinogenic adverse health effect, NYSDEC has determined that a 10-fold increase in these refined/interim AGCs is allowable. After this 10-fold increase is applied, these air contaminants are in compliance with Part 212, as their model predicted maximum impact at or beyond the facility fence line does not exceed the the upper limit of the NYSDEC's allowable acceptable risk management range.

PROJECT TITLE:

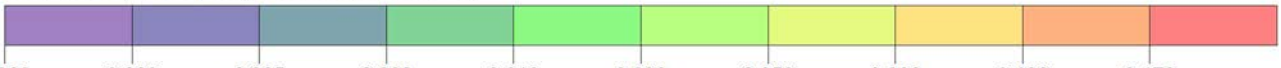
E:\Marmen Inc Part 212 Review\Rev_6\Nickel_7440-02-0_1-Hr_Annual
Marmen-Welcon Tower Manufacturing Plant - Nickel 7440-02-0



PLOT FILE OF HIGH 1ST HIGH 1-HR VALUES FOR SOURCE GROUP: ALL

ug/m^3

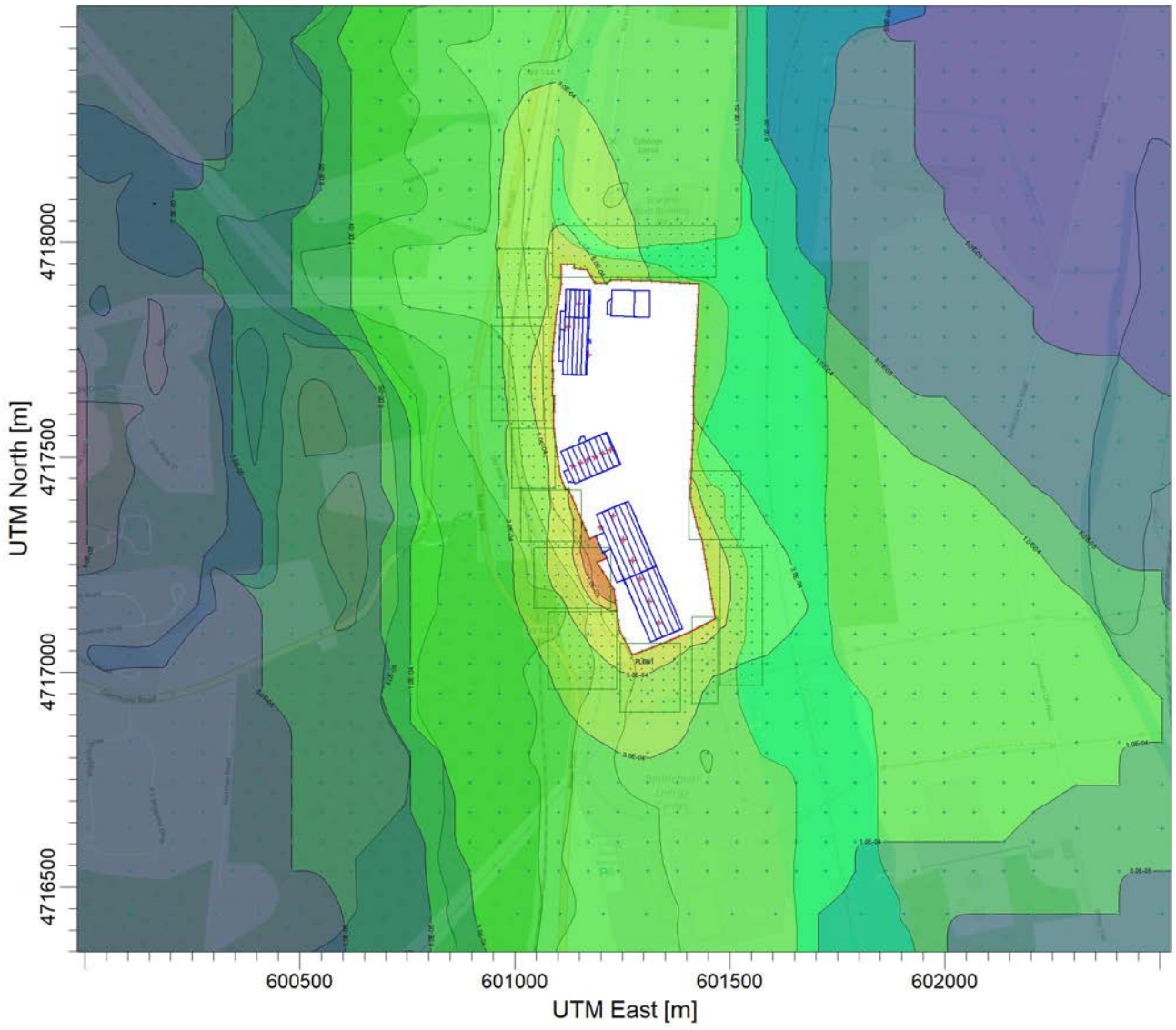
Max: 0.178 [ug/m^3] at (601173.79, 4717310.30)



COMMENTS:	SOURCES: **16**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	PROACTIVE Environmental Solutions
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 0 0.5 km	
	MAX: **0.178 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

PROJECT TITLE:

E:\Marmen Inc Part 212 Review\Rev_6\Nickel_7440-02-0_1-Hr_Annual
Marmen-Welcon Tower Manufacturing Plant - Nickel 7440-02-0



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

Max: 1.6E-03 [ug/m^3] at (601188.06, 4717316.37)

1.6E-05 3.0E-05 5.0E-05 8.0E-05 1.0E-04 3.0E-04 5.0E-04 8.0E-04 1.0E-03 1.6E-03

COMMENTS:	SOURCES: **16**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	PROACTIVE Environmental Solutions
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 — 0 — 0.5 km	
	MAX: **1.6E-03 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

Modeling Report R7 – Appendix C

Site-Wide Modeling – Modeled NO_2 and $PM_{2.5}$ Emission Rates and Results Summaries

PROACTIVE ENVIRONMENTAL SOLUTIONS
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Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 200.6 Acceptable Ambient Air Quality
Part 200.6 NAAQS Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Modeled Point Source NO_X Emissions Summary (Site-Wide NO_2 Modeling)

Emission Unit(s)	Emission Point	Modeled Source ID	No. of Exhaust Stacks	NO_X Emission Rate Potential (ERP) (lb/hr)	Air Cleaning (% NO_X Control)	Maximum Potential Hourly NO_X Emission Rate (lb/hr)	Modeled Hourly NO_X Emission Rate (lb/hr) [1]	Proposed Allowable Annual NO_X Emissions (lbs/yr) [1]	Modeled Annual NO_X Emission Rate (lb/hr) [1]	Stack Exhaust Point Location		Stack Base Elevation (m)	Release Height Above Ground Level (ft)	Stack Configuration	Discharge Direction	Stack Diameter (ft)	Stack Dimensions (if rectangular)		Exhaust Gas Exit Velocity (m/s)	Exhaust Gas Exit Temp (°F)
										UTM Easting (m)	UTM Northing (m)						Length (ft)	Width (ft)		
U-MFR_A, Exempt Sources	VNT1A	VENT_1A	6	6.39	0%	6.39	1.07	55989	1.07 (annual avg)	601334.59	4717114.88	2.35	92	ROUND	VERTICAL	3.03	n/a	n/a	14.4	70
	VNT2A	VENT_2A					1.07		1.07 (annual avg)	601313.11	4717165.47	2.75	92	ROUND	VERTICAL	3.03	n/a	n/a	14.4	70
	VNT3A	VENT_3A					1.07		1.07 (annual avg)	601291.63	4717215.76	2.78	92	ROUND	VERTICAL	3.03	n/a	n/a	14.4	70
	VNT4A	VENT_4A					1.07		1.07 (annual avg)	601273.22	4717259.30	2.78	73	ROUND	VERTICAL	2.36	n/a	n/a	7.2	70
	VNT5A	VENT_5A					1.07		1.07 (annual avg)	601252.46	4717307.74	2.78	73	ROUND	VERTICAL	2.36	n/a	n/a	7.2	70
	VNT6A	VENT_6A					1.07		1.07 (annual avg)	601228.62	4717363.85	2.78	73	ROUND	VERTICAL	2.36	n/a	n/a	7.2	70
U-PBLST	0001A	STCK_1A	1	0	0%	0	0	0	0 (annual avg)	601198.93	4717336.89	2.78	30	SQUARE	HORIZ	4.51 *	4.00	4.00	3.0	75
Exempt	Exempt	B_1A	1	7.14E-02	0%	7.14E-02	7.14E-02	626	0.071 (annual avg)	601226.43	4717263.86	2.78	43.5	ROUND	VERTICAL	0.5	n/a	n/a	4.5	130
Exempt	Exempt	RTU_1A	1	3.81E-02	0%	3.81E-02	3.81E-02	334	0.038 (annual avg)	601211.66	4717291.72	2.78	25	ROUND	HORIZ	0.333	n/a	n/a	8.2	350
Exempt	Exempt	RTU_2A	1	3.33E-02	0%	3.33E-02	3.33E-02	292	0.033 (annual avg)	601214.16	4717292.68	2.78	25	ROUND	HORIZ	0.333	n/a	n/a	7.3	350
Exempt	Exempt	VP_AA_1	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601319.94	4717072.09	2.42	84	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_2	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601326.51	4717074.66	2.44	84	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_3	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601334.44	4717078.17	2.47	86	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_4	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601341.24	4717081.04	2.49	86	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_5	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601352.34	4717085.83	2.49	88	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_6	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601359.13	4717088.71	2.50	90	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_7	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601366.83	4717092.21	2.52	90	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_8	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601373.63	4717094.78	2.55	92	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_9	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601380.43	4717097.66	2.58	92	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_10	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601258.56	4717217.74	2.78	71	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_11	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601265.35	4717220.62	2.78	72	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_12	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601273.51	4717224.13	2.77	73	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_13	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601280.07	4717227.00	2.77	74	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_14	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601291.18	4717231.48	2.78	75	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_15	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601297.97	4717234.67	2.78	76	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_16	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601305.67	4717237.87	2.78	77	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_17	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601312.47	4717240.74	2.79	78	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_18	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601319.03	4717243.61	2.79	79	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_19	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601253.94	4717221.38	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_20	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601241.20	4717251.43	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_21	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601240.25	4717253.88	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_22	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601237.65	4717260.01	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_23	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601325.74	4717252.66	2.87	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_24	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601313.46	4717281.79	2.79	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_25	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601312.28	4717284.55	2.79	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_26	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601310.16	4717289.76	2.79	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_27	1	1.14E-01	0%	1.14E-01	1.14E-01	1001	0.114 (annual avg)	601229.23	4717228.11	2.78	32	ROUND	HORIZ	0.5	n/a	n/a	6.5	150
Exempt	Exempt	VP_AA_28	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601222.63	4717289.72	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_29	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601297.84	4717321.67	2.78	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_30	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601194.82	4717368.29	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_31	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601201.39	4717371.17	2.78	58	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_32	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601209.54	4717374.68	2.78	59	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_33	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601216.12	4717377.24	2.78	60	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_34	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601227.21	4717382.03	2.78	61	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_35	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601234.24	4717384.91	2.78	62	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_36	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601241.71	4717388.11	2.78	63	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_37	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601248.51	4717390.98	2.78	64	ROUND	HORIZ	0.5	n/a	n/a	3.9	150

Modeled Point Source NO_X Emissions Summary (Site-Wide NO_2 Modeling)

Emission Unit(s)	Emission Point	Modeled Source ID	No. of Exhaust Stacks	NO_X Emission Rate Potential (ERP) (lb/hr)	Air Cleaning (% NO_X Control)	Maximum Potential Hourly NO_X Emission Rate (lb/hr)	Modeled Hourly NO_X Emission Rate (lb/hr) [1]	Proposed Allowable Annual NO_X Emissions (lbs/yr) [1]	Modeled Annual NO_X Emission Rate (lb/hr) [1]	Stack Exhaust Point Location		Stack Base Elevation (m)	Release Height Above Ground Level (ft)	Stack Configuration	Discharge Direction	Stack Diameter (ft)	Stack Dimensions (if rectangular)		Exhaust Gas Exit Velocity (m/s)	Exhaust Gas Exit Temp (°F)
										UTM Easting (m)	UTM Northing (m)						Length (ft)	Width (ft)		
Exempt	Exempt	VP_AA_38	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601255.30	4717393.86	2.78	65	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	GEN_A1	1	5.03E-02	0%	5.03E-02	**Excluded**	25.1	0.003 (annual avg)	601206.59	4717249.07	2.78	6	ROUND	HORIZ	0.333	n/a	n/a	69.9	1285
U-MFR_B, Exempt Sources	VNT1B	VENT_1B	6	3.43	0%	3.43	0.572	30074	0.572 (annual avg)	601222.06	4717516.78	2.80	75	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT2B	VENT_2B					0.572		0.572 (annual avg)	601203.94	4717509.11	2.87	72	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT3B	VENT_3B					0.572		0.572 (annual avg)	601186.04	4717501.45	2.79	69	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT4B	VENT_4B					0.572		0.572 (annual avg)	601169.05	4717494.41	2.77	66	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT5B	VENT_5B					0.572		0.572 (annual avg)	601152.74	4717487.39	2.73	64	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT6B	VENT_6B					0.572		0.572 (annual avg)	601133.72	4717479.40	2.71	61	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
Exempt	Exempt	B_1B	1	3.80E-02	0%	3.80E-02	3.80E-02	333	0.038 (annual avg)	601117.55	4717462.81	2.77	20	ROUND	VERTICAL	0.300	n/a	n/a	8.0	130
Exempt	Exempt	RTU_1B	1	2.38E-02	0%	2.38E-02	2.38E-02	209	0.024 (annual avg)	601120.23	4717466.55	2.77	21	ROUND	HORIZ	0.333	n/a	n/a	5.2	350
Exempt	Exempt	RTU_2B	1	1.24E-02	0%	1.24E-02	1.24E-02	108	0.012 (annual avg)	601156.73	4717542.36	2.76	21	ROUND	HORIZ	0.333	n/a	n/a	3.2	350
Exempt	Exempt	VP_AB_1	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601121.88	4717477.99	2.75	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_2	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601151.79	4717443.56	2.73	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_3	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601120.16	4717518.07	2.67	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_4	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601164.47	4717448.99	2.71	54	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_5	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601132.62	4717523.19	2.67	54	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_6	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601180.10	4717455.70	2.76	56	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_7	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601148.48	4717529.90	2.72	56	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_8	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601194.60	4717461.77	2.80	58	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_9	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601162.98	4717535.97	2.77	58	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_10	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601211.13	4717468.80	2.83	60	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_11	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601179.51	4717543.31	2.78	60	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_12	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601223.60	4717473.92	2.82	61	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_13	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601191.74	4717548.42	2.82	61	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_14	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601235.60	4717479.03	2.79	62	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_15	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601203.97	4717553.54	2.88	62	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VENT_1C	3	0.428	0%	0.428	0.143	3748	0.143 (annual avg)	601141.96	4717711.21	2.66	85	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	VENT_2C					0.143		0.143 (annual avg)	601144.05	4717755.67	2.61	85	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	VENT_3C					0.143		0.143 (annual avg)	601146.43	4717811.55	2.49	85	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	BTH_BLR1	1	1.985	0%	1.985	1.985	17387	1.985 (annual avg)	601175.07	4717769.39	2.77	90	ROUND	VERTICAL	2	n/a	n/a	7.0	300
Exempt	Exempt	BTH_BLR2																		
Exempt	Exempt	BTH_BLR3																		
U-TBLST	0001C	STCK_1C	1	0	0%	0	0	0	0 (annual avg)	601123.54	4717802.57	2.36	85.3	ROUND	VERTICAL	2.96	n/a	n/a	18.3	75
U-BOOTH	0002C	STCK_2C	1	0.700	0%	0.700	0.700	6132	0.700 (annual avg)	601171.89	4717737.26	2.78	90	ROUND	VERTICAL	6.17	n/a	n/a	15.2	115
U-METAL	VNT4C	VENT_4C	1	0	0%	0	0	0	0 (annual avg)	601148.49	4717857.55	2.34	69	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	B_1C	1	3.80E-02	0%	3.80E-02	3.80E-02	333	0.038 (annual avg)	601105.29	4717772.07	2.44	42	ROUND	VERTICAL	0.333	n/a	n/a	8.0	130
Exempt	Exempt	RTU_1C	1	3.33E-02	0%	3.33E-02	3.33E-02	292	0.033 (annual avg)	601108.21	4717838.14	2.20	24	ROUND	HORIZ	0.333	n/a	n/a	7.3	350
Exempt	Exempt	AHU_1C	1	0.229	0%	0.229	0.229	2002	0.229 (annual avg)	601127.67	4717894.26	1.87	15	ROUND	VERTICAL	1.167	n/a	n/a	3.0	375
Exempt	Exempt	AHU_2C	1	0.229	0%	0.229	0.229	2002	0.229 (annual avg)	601162.11	4717892.92	2.44	15	ROUND	VERTICAL	1.167	n/a	n/a	3.0	375
Exempt	Exempt	VP_AC_1	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601167.47	4717697.08	2.78	21	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_2	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601172.54	4717817.79	2.76	21	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_3	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601126.05	4717692.78	2.63	67	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_4	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601122.54	4717824.46	2.26	67	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_5	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601134.26	4717692.59	2.66	68	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_6	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601140.32	4717823.80	2.37	68	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_7	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601152.73	4717691.62	2.75	72	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_8	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601158.57	4717822.83	2.62	72	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_9	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601129.79	4717889.98	1.91	49	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_10	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601141.64	4717889.53	2.04	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_11	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601150.99	4717889.05	2.16	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_12	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601160.35	4717888.57	2.40	53	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_13	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601169.01	4717888.08	2.69	56	ROUND	HORIZ	0.5	n/a	n/a	3.9	150

Modeled Point Source NO_X Emissions Summary (Site-Wide NO_2 Modeling)

Emission Unit(s)	Emission Point	Modeled Source ID	No. of Exhaust Stacks	NO_X Emission Rate Potential (ERP) (lb/hr)	Air Cleaning (% NO_X Control)	Maximum Potential Hourly NO_X Emission Rate (lb/hr)	Modeled Hourly NO_X Emission Rate (lb/hr) [1]	Proposed Allowable Annual NO_X Emissions (lbs/yr) [1]	Modeled Annual NO_X Emission Rate (lb/hr) [1]	Stack Exhaust Point Location		Stack Base Elevation (m)	Release Height Above Ground Level (ft)	Stack Configuration	Discharge Direction	Stack Diameter (ft)	Stack Dimensions (if rectangular)		Exhaust Gas Exit Velocity (m/s)	Exhaust Gas Exit Temp (°F)
										UTM Easting (m)	UTM Northing (m)						Length (ft)	Width (ft)		
Exempt	Exempt	GEN_C1	1	8.04E-02	0%	8.04E-02	**Excluded**	40.2	0.005 (annual avg)	601108.61	4717716.28	2.56	6	ROUND	HORIZ	0.417	n/a	n/a	49.4	1378
Exempt	Exempt	VENT_1D	2	0.167	0%	0.167	8.37E-02	1466	0.084 (annual avg)	601232.31	4717860.93	4.55	57	SQUARE	CAPPED	3.95 *	3.50	3.50	2.3	70
Exempt	Exempt	VENT_2D					8.37E-02		0.084 (annual avg)	601291.37	4717858.40	4.53	91	SQUARE	CAPPED	3.95 *	3.50	3.50	2.3	70
Exempt	Exempt	B_1D	1	2.85E-02	0%	2.85E-02	2.85E-02	249	0.028 (annual avg)	601224.06	4717863.89	4.58	20	ROUND	HORIZ	0.3	n/a	n/a	6.0	130
Exempt	Exempt	RTU_1D	1	1.90E-02	0%	1.90E-02	1.90E-02	167	0.019 (annual avg)	601217.29	4717859.47	4.26	22	ROUND	HORIZ	0.333	n/a	n/a	4.1	350
Exempt	Exempt	VP_AD_1	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601224.34	4717860.19	4.46	43	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_2	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601240.54	4717828.04	4.06	43	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_3	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601243.29	4717889.47	5.28	43	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_4	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601254.22	4717827.31	4.18	45	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_5	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601256.74	4717889.05	5.09	45	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_6	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601269.73	4717826.61	4.24	47	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_7	1	7.62E-02	0%	7.62E-02	7.62E-02	667	0.076 (annual avg)	601272.48	4717888.35	4.86	47	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_8	1	3.81E-02	0%	3.81E-02	3.81E-02	334	0.038 (annual avg)	601283.65	4717887.90	4.71	30	ROUND	HORIZ	0.5	n/a	n/a	1.9	150
Exempt	Exempt	VP_AD_9	1	3.81E-02	0%	3.81E-02	3.81E-02	334	0.038 (annual avg)	601312.16	4717886.47	4.42	30	ROUND	HORIZ	0.5	n/a	n/a	1.9	150
Exempt	Exempt	F_PUMP_1	1	2.33	0%	2.33	**Excluded**	1166	0.133 (annual avg)	601423.41	4717853.23	2.86	15	ROUND	HORIZ	0.667	n/a	n/a	44.8	915
Exempt	Exempt	F_PUMP_2	1	2.33	0%	2.33	**Excluded**	1166	0.133 (annual avg)	601422.86	4717859.39	2.81	15	ROUND	HORIZ	0.667	n/a	n/a	44.8	915
Exempt	Exempt	VENT_1E	1	5.87E-02	0%	5.87E-02	5.87E-02	514	0.059 (annual avg)	601493.92	4719670.20	4.23	43.5	SQUARE	CAPPED	2.82 *	2.50	2.50	2.0	70
Exempt	Exempt	B_1E	1	2.85E-02	0%	2.85E-02	2.85E-02	249	0.028 (annual avg)	601508.07	4719637.39	4.07	22	ROUND	HORIZ	0.3	n/a	n/a	6.0	130
Exempt	Exempt	RTU_1E	1	1.90E-02	0%	1.90E-02	1.90E-02	167	0.019 (annual avg)	601481.02	4719648.11	4.14	24	ROUND	HORIZ	0.333	n/a	n/a	4.1	350
Exempt	Exempt	VP_1E	1	1.43E-02	0%	1.43E-02	1.43E-02	125	0.014 (annual avg)	601462.53	4719666.04	4.22	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_2E	1	4.29E-02	0%	4.29E-02	4.29E-02	375	0.043 (annual avg)	601470.39	4719689.91	4.30	32	ROUND	HORIZ	0.3	n/a	n/a	6.5	150
Exempt	Exempt	VP_3E	1	1.43E-02	0%	1.43E-02	1.43E-02	125	0.014 (annual avg)	601484.83	4719652.48	4.17	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_4E	1	1.43E-02	0%	1.43E-02	1.43E-02	125	0.014 (annual avg)	601488.95	4719651.16	4.16	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_5E	1	1.43E-02	0%	1.43E-02	1.43E-02	125	0.014 (annual avg)	601508.42	4719644.50	4.11	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_6E	1	1.43E-02	0%	1.43E-02	1.43E-02	125	0.014 (annual avg)	601517.10	4719658.81	4.19	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	GEN_E1	1	5.05E-02	0%	5.05E-02	**Excluded**	25.2	0.003 (annual avg)	601477.66	4719644.35	4.12	6	ROUND	HORIZ	0.417	n/a	n/a	44.9	1440

* Equivalent diameter calculated for rectangular stack where Deq = 2*SQRT(L*W/pi()).

Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 200.6 Acceptable Ambient Air Quality
Part 200.6 NAAQS Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Modeled Point Source $PM_{2.5}$ Emissions Summary (Site-Wide $PM_{2.5}$ Modeling)

Emission Unit(s)	Emission Point	Modeled Source ID	No. of Exhaust Stacks	$PM_{2.5}$ Emission Rate Potential (ERP) (lb/hr)	Air Cleaning (% PM2.5 Control)	Maximum Potential Hourly PM2.5 Emission Rate (lb/hr)	Maximum Daily Operating Hours (Hrs/Day)	Modeled 24-Hour Average PM2.5 Emission Rate (lb/hr)	Modeled 24-Hour Average PM2.5 Emission Rate (g/s)	Proposed Allowable Annual PM2.5 Emissions (lbs/yr)	Modeled Annual PM2.5 Emission Rate (lb/hr)	Modeled Annual PM2.5 Emission Rate (g/s)	Stack Exhaust Point Location		Stack Base Elevation (m)	Release Height Above Ground Level (ft)	Stack Configuration	Discharge Direction	Stack Diameter (ft)	Stack Dimensions (if rectangular)		Exhaust Gas Exit Velocity (m/s)	Exhaust Gas Exit Temp (°F)
													UTM Easting (m)	UTM Northing (m)						Length (ft)	Width (ft)		
U-MFR_A, Exempt Sources	VNT1A	VENT_1A	6	1.77	99.0%	1.77E-02	24.0	2.94E-03 (24-hr avg)	3.71E-04 (24-hr avg)	155	2.94E-03 (annual avg)	3.71E-04 (annual avg)	601334.59	4717114.88	2.35	92	ROUND	VERTICAL	3.0313	n/a	n/a	14.4	70
	VNT2A	VENT_2A					24.0	2.94E-03 (24-hr avg)	3.71E-04 (24-hr avg)		2.94E-03 (annual avg)	3.71E-04 (annual avg)	601313.11	4717165.47	2.75	92	ROUND	VERTICAL	3.0313	n/a	n/a	14.4	70
	VNT3A	VENT_3A					24.0	2.94E-03 (24-hr avg)	3.71E-04 (24-hr avg)		2.94E-03 (annual avg)	3.71E-04 (annual avg)	601291.63	4717215.76	2.78	92	ROUND	VERTICAL	3.0313	n/a	n/a	14.4	70
	VNT4A	VENT_4A					24.0	2.94E-03 (24-hr avg)	3.71E-04 (24-hr avg)		2.94E-03 (annual avg)	3.71E-04 (annual avg)	601273.22	4717259.30	2.78	73	ROUND	VERTICAL	2.3647	n/a	n/a	7.2	70
	VNT5A	VENT_5A					24.0	2.94E-03 (24-hr avg)	3.71E-04 (24-hr avg)		2.94E-03 (annual avg)	3.71E-04 (annual avg)	601252.46	4717307.74	2.78	73	ROUND	VERTICAL	2.3647	n/a	n/a	7.2	70
	VNT6A	VENT_6A					24.0	2.94E-03 (24-hr avg)	3.71E-04 (24-hr avg)		2.94E-03 (annual avg)	3.71E-04 (annual avg)	601228.62	4717363.85	2.78	73	ROUND	VERTICAL	2.3647	n/a	n/a	7.2	70
U-PBLST	0001A	STCK_1A	1	30	99.0%	0.300	24.0	3.00E-01 (24-hr avg)	3.78E-02 (24-hr avg)	2628	3.00E-01 (annual avg)	3.78E-02 (annual avg)	601198.93	4717336.89	2.78	30	SQUARE	HORIZ	4.51 *	4.00	4.00	3.0	75
Exempt	Exempt	B_1A	1	5.43E-03	0.0%	5.43E-03	24.0	5.43E-03 (24-hr avg)	6.84E-04 (24-hr avg)	47.6	5.43E-03 (annual avg)	6.84E-04 (annual avg)	601226.43	4717263.86	2.78	43.5	ROUND	VERTICAL	0.5	n/a	n/a	4.5	130
Exempt	Exempt	RTU_1A	1	2.90E-03	0.0%	2.90E-03	24.0	2.90E-03 (24-hr avg)	3.65E-04 (24-hr avg)	25.4	2.90E-03 (annual avg)	3.65E-04 (annual avg)	601211.66	4717291.72	2.78	25	ROUND	HORIZ	0.333	n/a	n/a	8.2	350
Exempt	Exempt	RTU_2A	1	2.53E-03	0.0%	2.53E-03	24.0	2.53E-03 (24-hr avg)	3.19E-04 (24-hr avg)	22.2	2.53E-03 (annual avg)	3.19E-04 (annual avg)	601214.16	4717292.68	2.78	25	ROUND	HORIZ	0.333	n/a	n/a	7.3	350
Exempt	Exempt	VP_AA_1	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601319.94	4717072.09	2.42	84	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_2	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601326.51	4717074.66	2.44	84	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_3	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601334.44	4717078.17	2.47	86	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_4	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601341.24	4717081.04	2.49	86	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_5	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601352.34	4717085.83	2.49	88	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_6	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601359.13	4717088.71	2.50	90	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_7	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601366.83	4717092.21	2.52	90	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_8	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601373.63	4717094.78	2.55	92	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_9	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601380.43	4717097.66	2.58	92	ROUND	VERTICAL	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_10	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601258.56	4717217.74	2.78	71	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_11	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601265.35	4717220.62	2.78	72	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_12	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601273.51	4717224.13	2.77	73	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_13	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601280.07	4717227.00	2.77	74	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_14	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601291.18	4717231.48	2.78	75	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_15	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601297.97	4717234.67	2.78	76	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_16	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601305.67	4717237.87	2.78	77	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_17	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601312.47	4717240.74	2.79	78	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_18	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601319.03	4717243.61	2.79	79	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_19	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601253.94	4717221.38	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_20	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601241.20	4717251.43	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_21	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601240.25	4717253.88	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_22	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601237.65	4717260.01	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_23	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601325.74	4717252.66	2.87	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_24	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601313.46	4717281.79	2.79	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_25	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601312.28	4717284.55	2.79	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_26	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601310.16	4717289.76	2.79	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_27	1	8.69E-03	0.0%	8.69E-03	24.0	8.69E-03 (24-hr avg)	1.09E-03 (24-hr avg)	76.1	8.69E-03 (annual avg)	1.09E-03 (annual avg)	601229.23	4717228.11	2.78	32	ROUND	HORIZ	0.5	n/a	n/a	6.5	150
Exempt	Exempt	VP_AA_28	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601222.63	4717289.72	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_29	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601297.84	4717321.67	2.78	66	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_30	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601194.82	4717368.29	2.78	57	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_31	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601201.39	4717371.17	2.78	58	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_32	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601209.54	4717374.68	2.78	59	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_33	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601216.12	4717377.24	2.78	60	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_34	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601227.21	4717382.03	2.78	61	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_35	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601234.24	4717384.91	2.78	62	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_36	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601241.71	4717388.11	2.78	63	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_37	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601248.51	4717390.98	2.78	64	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AA_38	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601255.30	4717393.86	2.78	65	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	GEN_A1	1	1.79E-02	0.0%	1.79E-02	**Excluded**	**Excluded**	**Excluded**	8.96	1.02E-03 (annual avg)	1.29E-04 (annual avg)	601206.59	4717249.07	2.78	6	ROUND	HORIZ	0.333	n/a	n/a	69.9	1285
U-MFR_B, Exempt Sources	VNT1B	VENT_1B	6	1.54	99.0%	1.54E-02	24.0	2.57E-03 (24-hr avg)	3.23E-04 (24-hr avg)	135	2.57E-03 (annual avg)	3.23E-04 (annual avg)	601222.06	4717516.78	2.80	75	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT2B	VENT_2B					24.0	2.57E-03 (24-hr avg)	3.23E-04 (24-hr avg)		2.57E-03 (annual avg)	3.23E-04 (annual avg)	601203.94	4717509.11	2.87	72	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT3B	VENT_3B					24.0	2.57E-03 (24-hr avg)	3.23E-04 (24-hr avg)		2.57E-03 (annual avg)	3.23E-04 (annual avg)	601186.04	4717501.45	2.79	69	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT4B	VENT_4B					24.0	2.57E-03 (24-hr avg)	3.23E-04 (24-hr avg)		2.57E-03 (annual avg)	3.23E-04 (annual avg)	601169.05	4717494.41	2.77	66	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT5B	VENT_5B					24.0	2.57E-03 (24-hr avg)	3.23E-04 (24-hr avg)		2.57E-03 (annual avg)	3.23E-04 (annual avg)	601152.74	4717487.39	2.73	64	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
	VNT6B	VENT_6B					24.0	2.57E-03 (24-hr avg)	3.23E-04 (24-hr avg)		2.57E-03 (annual avg)	3.23E-04 (annual avg)	601133.72	4717479.40	2.71	61	SQUARE	CAPPED	6.02 *	5.33	5.33	3.2	70
Exempt	Exempt	B_1B	1	2.89E-03	0.0%	2.89E-03	24.0	2.89E-03 (24-hr avg)	3.64E-04 (24-hr avg)	25.3	2.89E-03 (annual avg)	3.64E-04 (annual avg)	601117.55	4717462.81	2.77	20	ROUND	VERTICAL	0.300	n/a	n/a	8.0	130
Exempt	Exempt	RTU_1B	1	1.81E-03	0.0%	1.81E-03	24.0	1.81E-03 (24-hr avg)	2.28E-04 (24-hr avg)	15.9	1.81E-03 (annual avg)	2.28E-04 (annual avg)	601120.23	4717466.55	2.77	21	ROUND	HORIZ	0.333	n/a	n/a	5.2	350
Exempt	Exempt	RTU_2B	1	9.41E-04	0.0%	9.41E-04	24.0	9.41E-04 (24-hr avg)	1.19E-04 (24-hr avg)	8.24	9.41E-04 (annual avg)	1.19E-04 (annual avg)	601156.73	4717542.36	2.76	21	ROUND	HORIZ	0.333	n/a	n/a	3.2	350
Exempt	Exempt	VP_AB_1	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601121.88	4717477.99	2.75	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_2	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601151.79	4717443.56	2.73	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_3	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601120.16	4717518.07	2.67	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_4	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601164.47	4717448.99	2.71	54	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_5	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601132.62	4717523.19	2.67	54	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_6	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601180.10	4717455.70	2.76	56	ROUND	HORIZ	0.5	n/a	n/a	3.9	150

Modeled Point Source $PM_{2.5}$ Emissions Summary (Site-Wide $PM_{2.5}$ Modeling)

Emission Unit(s)	Emission Point	Modeled Source ID	No. of Exhaust Stacks	$PM_{2.5}$ Emission Rate Potential (ERP) (lb/hr)	Air Cleaning (% PM2.5 Control)	Maximum Potential Hourly PM2.5 Emission Rate (lb/hr)	Maximum Daily Operating Hours (Hrs/Day)	Modeled 24-Hour Average PM2.5 Emission Rate (lb/hr)	Modeled 24-Hour Average PM2.5 Emission Rate (g/s)	Proposed Allowable Annual PM2.5 Emissions (lbs/yr)	Modeled Annual PM2.5 Emission Rate (lb/hr)	Modeled Annual PM2.5 Emission Rate (g/s)	Stack Exhaust Point Location		Stack Base Elevation (m)	Release Height Above Ground Level (ft)	Stack Configuration	Discharge Direction	Stack Diameter (ft)	Stack Dimensions (if rectangular)		Exhaust Gas Exit Velocity (m/s)	Exhaust Gas Exit Temp (°F)
													UTM Easting (m)	UTM Northing (m)						Length (ft)	Width (ft)		
Exempt	Exempt	VP_AB_7	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601148.48	4717529.90	2.72	56	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_8	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601194.60	4717461.77	2.80	58	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_9	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601162.98	4717535.97	2.77	58	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_10	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601211.13	4717468.80	2.83	60	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_11	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601179.51	4717543.31	2.78	60	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_12	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601223.60	4717473.92	2.82	61	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_13	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601191.74	4717548.42	2.82	61	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_14	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601235.60	4717479.03	2.79	62	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AB_15	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601203.97	4717553.54	2.88	62	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VENT_1C	3	3.25E-02	0.0%	3.25E-02	24.0	1.08E-02 (24-hr avg)	1.37E-03 (24-hr avg)	285	1.08E-02 (annual avg)	1.37E-03 (annual avg)	601141.96	4717711.21	2.66	85	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	VENT_2C						1.08E-02 (24-hr avg)	1.37E-03 (24-hr avg)		1.08E-02 (annual avg)	1.37E-03 (annual avg)	601144.05	4717755.67	2.61	85	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	VENT_3C						1.08E-02 (24-hr avg)	1.37E-03 (24-hr avg)		1.08E-02 (annual avg)	1.37E-03 (annual avg)	601146.43	4717811.55	2.49	85	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	BTH_BLR1	1	0.151	0.0%	0.151	24.0	1.51E-01 (24-hr avg)	1.90E-02 (24-hr avg)	1321	1.51E-01 (annual avg)	1.90E-02 (annual avg)	601175.07	4717769.39	2.77	90	ROUND	VERTICAL	2.0	n/a	n/a	7.0	300
Exempt	Exempt	BTH_BLR2					24.0																
Exempt	Exempt	BTH_BLR3					24.0																
U-TBLST	0001C	STCK_1C	1	4.55	99.0%	4.55E-02	24.0	4.55E-02 (24-hr avg)	5.73E-03 (24-hr avg)	399	4.55E-02 (annual avg)	5.73E-03 (annual avg)	601123.54	4717802.57	2.36	85.3	ROUND	VERTICAL	2.96	n/a	n/a	18.3	75
U-BOOTH	0002C	STCK_2C	1	214	99.0%	2.19	24.0	2.19E+00 (24-hr avg)	2.77E-01 (24-hr avg)	3847	0.439 (annual avg)	5.53E-02 (annual avg)	601171.89	4717737.26	2.78	90	ROUND	VERTICAL	6.17	n/a	n/a	15.2	115
U-METAL	VNT4C	VENT_4C	1	155	99.99%	1.55E-02	24.0	1.55E-02 (24-hr avg)	1.96E-03 (24-hr avg)	136	0.02 (annual avg)	1.96E-03 (annual avg)	601148.49	4717857.55	2.34	69	SQUARE	CAPPED	3.39 *	3.00	3.00	3.1	70
Exempt	Exempt	B_1C	1	2.89E-03	0.0%	2.89E-03	24.0	2.89E-03 (24-hr avg)	3.64E-04 (24-hr avg)	25.3	2.89E-03 (annual avg)	3.64E-04 (annual avg)	601105.29	4717772.07	2.44	42	ROUND	VERTICAL	0.333	n/a	n/a	8.0	130
Exempt	Exempt	RTU_1C	1	2.53E-03	0.0%	2.53E-03	24.0	2.53E-03 (24-hr avg)	3.19E-04 (24-hr avg)	22.2	2.53E-03 (annual avg)	3.19E-04 (annual avg)	601108.21	4717838.14	2.20	24	ROUND	HORIZ	0.333	n/a	n/a	7.3	350
Exempt	Exempt	AHU_1C	1	1.74E-02	0.0%	1.74E-02	24.0	1.74E-02 (24-hr avg)	2.19E-03 (24-hr avg)	152	1.74E-02 (annual avg)	2.19E-03 (annual avg)	601127.67	4717894.26	1.87	15	ROUND	VERTICAL	1.167	n/a	n/a	3.0	375
Exempt	Exempt	AHU_2C	1	1.74E-02	0.0%	1.74E-02	24.0	1.74E-02 (24-hr avg)	2.19E-03 (24-hr avg)	152	1.74E-02 (annual avg)	2.19E-03 (annual avg)	601162.11	4717892.92	2.44	15	ROUND	VERTICAL	1.167	n/a	n/a	3.0	375
Exempt	Exempt	VP_AC_1	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601167.47	4717697.08	2.78	21	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_2	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601172.54	4717817.79	2.76	21	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_3	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601126.05	4717692.78	2.63	67	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_4	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601122.54	4717824.46	2.26	67	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_5	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601134.26	4717692.59	2.66	68	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_6	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601140.32	4717823.80	2.37	68	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_7	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601152.73	4717691.62	2.75	72	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_8	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601158.57	4717822.83	2.62	72	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_9	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601129.79	4717889.98	1.91	49	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_10	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601141.64	4717889.53	2.04	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_11	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601150.99	4717889.05	2.16	52	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_12	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601160.35	4717888.57	2.40	53	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AC_13	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601169.01	4717888.08	2.69	56	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	GEN_C1	1	2.45E-02	0.0%	2.45E-02	**Excluded**	**Excluded**	**Excluded**	12.3	1.40E-03 (annual avg)	1.76E-04 (annual avg)	601108.61	4717716.28	2.56	6	ROUND	HORIZ	0.417	n/a	n/a	49.4	1378
Exempt	Exempt	VENT_1D	2	1.27E-02	0.0%	1.27E-02	24.0	6.36E-03 (24-hr avg)	8.01E-04 (24-hr avg)	111	6.36E-03 (annual avg)	8.01E-04 (annual avg)	601232.31	4717860.93	4.55	57	SQUARE	CAPPED	3.95 *	3.50	3.50	2.3	70
Exempt	Exempt	VENT_2D						6.36E-03 (24-hr avg)	8.01E-04 (24-hr avg)		6.36E-03 (annual avg)	8.01E-04 (annual avg)	601291.37	4717858.40	4.53	91	SQUARE	CAPPED	3.95 *	3.50	3.50	2.3	70
Exempt	Exempt	B_1D	1	2.16E-03	0.0%	2.16E-03	24.0	2.16E-03 (24-hr avg)	2.73E-04 (24-hr avg)	19.0	2.16E-03 (annual avg)	2.73E-04 (annual avg)	601224.06	4717863.89	4.58	20	ROUND	HORIZ	0.3	n/a	n/a	6.0	130
Exempt	Exempt	RTU_1D	1	1.45E-03	0.0%	1.45E-03	24.0	1.45E-03 (24-hr avg)	1.82E-04 (24-hr avg)	12.7	1.45E-03 (annual avg)	1.82E-04 (annual avg)	601217.29	4717859.47	4.26	22	ROUND	HORIZ	0.333	n/a	n/a	4.1	350
Exempt	Exempt	VP_AD_1	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601224.34	4717860.19	4.46	43	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_2	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601240.54	4717828.04	4.06	43	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_3	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601243.29	4717889.47	5.28	43	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_4	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601254.22	4717827.31	4.18	45	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_5	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601256.74	4717889.05	5.09	45	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_6	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601269.73	4717826.61	4.24	47	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_7	1	5.79E-03	0.0%	5.79E-03	24.0	5.79E-03 (24-hr avg)	7.30E-04 (24-hr avg)	50.7	5.79E-03 (annual avg)	7.30E-04 (annual avg)	601272.48	4717888.35	4.86	47	ROUND	HORIZ	0.5	n/a	n/a	3.9	150
Exempt	Exempt	VP_AD_8	1	2.90E-03	0.0%	2.90E-03	24.0	2.90E-03 (24-hr avg)	3.65E-04 (24-hr avg)	25.4	2.90E-03 (annual avg)	3.65E-04 (annual avg)	601283.65	4717887.90	4.71	30	ROUND	HORIZ	0.5	n/a	n/a	1.9	150
Exempt	Exempt	VP_AD_9	1	2.90E-03	0.0%	2.90E-03	24.0	2.90E-03 (24-hr avg)	3.65E-04 (24-hr avg)	25.4	2.90E-03 (annual avg)	3.65E-04 (annual avg)	601312.16	4717886.47	4.42	30	ROUND	HORIZ	0.5	n/a	n/a	1.9	150
Exempt	Exempt	F_PUMP_1	1	0.08	0.0%	0.08	**Excluded**	**Excluded**	**Excluded**	39.6	4.51E-03 (annual avg)	5.69E-04 (annual avg)	601423.41	4717853.23	2.86	15	ROUND	HORIZ	0.667	n/a	n/a	44.8	915
Exempt	Exempt	F_PUMP_2	1	2.33	0.0%	2.33	**Excluded**	**Excluded**	**Excluded**	39.6	4.51E-03 (annual avg)	5.69E-04 (annual avg)	601422.86	4717859.39	2.81	15	ROUND	HORIZ	0.667	n/a	n/a	44.8	915
Exempt	Exempt	VENT_1E	1	4.46E-03	0.0%	4.46E-03	24.0	4.46E-03 (24-hr avg)	5.62E-04 (24-hr avg)	39.1	4.46E-03 (annual avg)	5.62E-04 (annual avg)	601493.92	4719670.20	4.23	43.5	SQUARE	CAPPED	2.82 *	2.50	2.50	2.0	70
Exempt	Exempt	B_1E	1	2.16E-03	0.0%	2.16E-03	24.0	2.16E-03 (24-hr avg)	2.73E-04 (24-hr avg)	19.0	2.16E-03 (annual avg)	2.73E-04 (annual avg)	601508.07	4719637.39	4.07	22	ROUND	HORIZ	0.3	n/a	n/a	6.0	130
Exempt	Exempt	RTU_1E	1	1.45E-03	0.0%	1.45E-03	24.0	1.45E-03 (24-hr avg)	1.82E-04 (24-hr avg)	12.7	1.45E-03 (annual avg)	1.82E-04 (annual avg)	601481.02	4719648.11	4.14	24	ROUND	HORIZ	0.333	n/a	n/a	4.1	350
Exempt	Exempt	VP_1E	1	1.09E-03	0.0%	1.09E-03	24.0	1.09E-03 (24-hr avg)	1.37E-04 (24-hr avg)	9.51	1.09E-03 (annual avg)	1.37E-04 (annual avg)	601462.53	4719666.04	4.22	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_2E	1	3.26E-03	0.0%	3.26E-03	24.0	3.26E-03 (24-hr avg)	4.10E-04 (24-hr avg)	28.5	3.26E-03 (annual avg)	4.10E-04 (annual avg)	601470.39	4719689.91	4.30	32	ROUND	HORIZ	0.3	n/a	n/a	6.5	150
Exempt	Exempt	VP_3E	1	1.09E-03	0.0%	1.09E-03	24.0	1.09E-03 (24-hr avg)	1.37E-04 (24-hr avg)	9.51	1.09E-03 (annual avg)	1.37E-04 (annual avg)	601484.83	4719652.48	4.17	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_4E	1	1.09E-03	0.0%	1.09E-03	24.0	1.09E-03 (24-hr avg)	1.37E-04 (24-hr avg)	9.51	1.09E-03 (annual avg)	1.37E-04 (annual avg)	601488.95	4719651.16	4.16	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_5E	1	1.09E-03	0.0%	1.09E-03	24.0	1.09E-03 (24-hr avg)	1.37E-04 (24-hr avg)	9.51	1.09E-03 (annual avg)	1.37E-04 (annual avg)	601508.42	4719644.50	4.11	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	VP_6E	1	1.09E-03	0.0%	1.09E-03	24.0	1.09E-03 (24-hr avg)	1.37E-04 (24-hr avg)	9.51	1.09E-03 (annual avg)	1.37E-04 (annual avg)	601517.10	4719658.81	4.19	32	ROUND	HORIZ	0.3	n/a	n/a	2.2	150
Exempt	Exempt	GEN_E1	1	2.04E-02	0.0%	2.04E-02	**Excluded**	**Excluded**	**Excluded**	10.2	1.16E-03 (annual avg)	1.46E-04 (annual avg)	601477.66	4719644.35	4.12	6	ROUND	HORIZ	0.417	n/a	n/a	44.9	1440

* Equivalent diameter calculated for rectangular stack where Deq = 2*SQRT(L*W/pi()).

Marmen Energy Co., Inc. - Port of Albany, New York
6 NYCRR Part 200.6 Acceptable Ambient Air Quality
Part 200.6 NAAQS Compliance Demonstration
Air Quality Dispersion Modeling - AERMOD, Version 22112

Site-Wide Modeling - Summary of Maximum Predicted NO_2 and $PM_{2.5}$ Impacts at/or Beyond Fence Line

Air Pollutant	Averaging Period	Background ($\mu g/m^3$)	Model Results ($\mu g/m^3$)	Total ($\mu g/m^3$)	Pollutant NAAQS ($\mu g/m^3$)	Percent of Standard
NO_2 (1)	1-hr	Seasonal (2)	184.6	184.6	188.0	98.18%
NO_2	Annual	Seasonal (2)	48.1	48.1	100.0	48.11%
$PM_{2.5}$ (1)	24-hr	21.0 (3)	8.7	29.7	35.0	84.88%
$PM_{2.5}$	Annual	8.00 (3)	1.87	9.87	12.0	82.26%

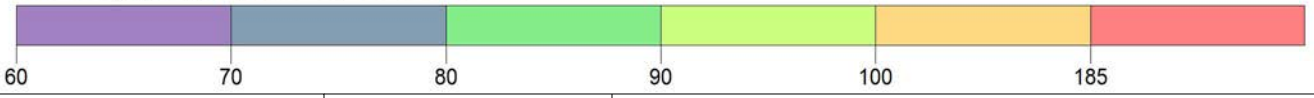
Table Notes:
(1) H8H value averaged over 5-years of meteorological data.
(2) Seasonal background NO_2 concentrations (seasonal hour of day NO_2 background data) from Chicopee, MA (Station ID 25-013-0008) were incorporated into the modeling results. NO_2 data from December 2017 to November 2020, and processed them to the type of "seasonal hour of day" data. For each season, three consecutive months of data were used. This data was obtained from NYSDEC.
(3) Background 24-hour $PM_{2.5}$ concentration based upon the 2018-2020 average of the 98th percentile 24-hour $PM_{2.5}$ values recorded at Albany Co. HD, NY (Station ID 36-001-0005). Background annual mean $PM_{2.5}$ concentration based upon the 2018-2020 annual mean $PM_{2.5}$ values.

PROJECT TITLE:

E:\Marmen Inc Site Wide\1-Hr NO2 NAAQS TIER2
Marmen-Welcon Tower Manufacturing Plant - 1-Hr NO2 NAAQS

PLOT FILE OF 8TH-HIGHEST MAX DAILY 1-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

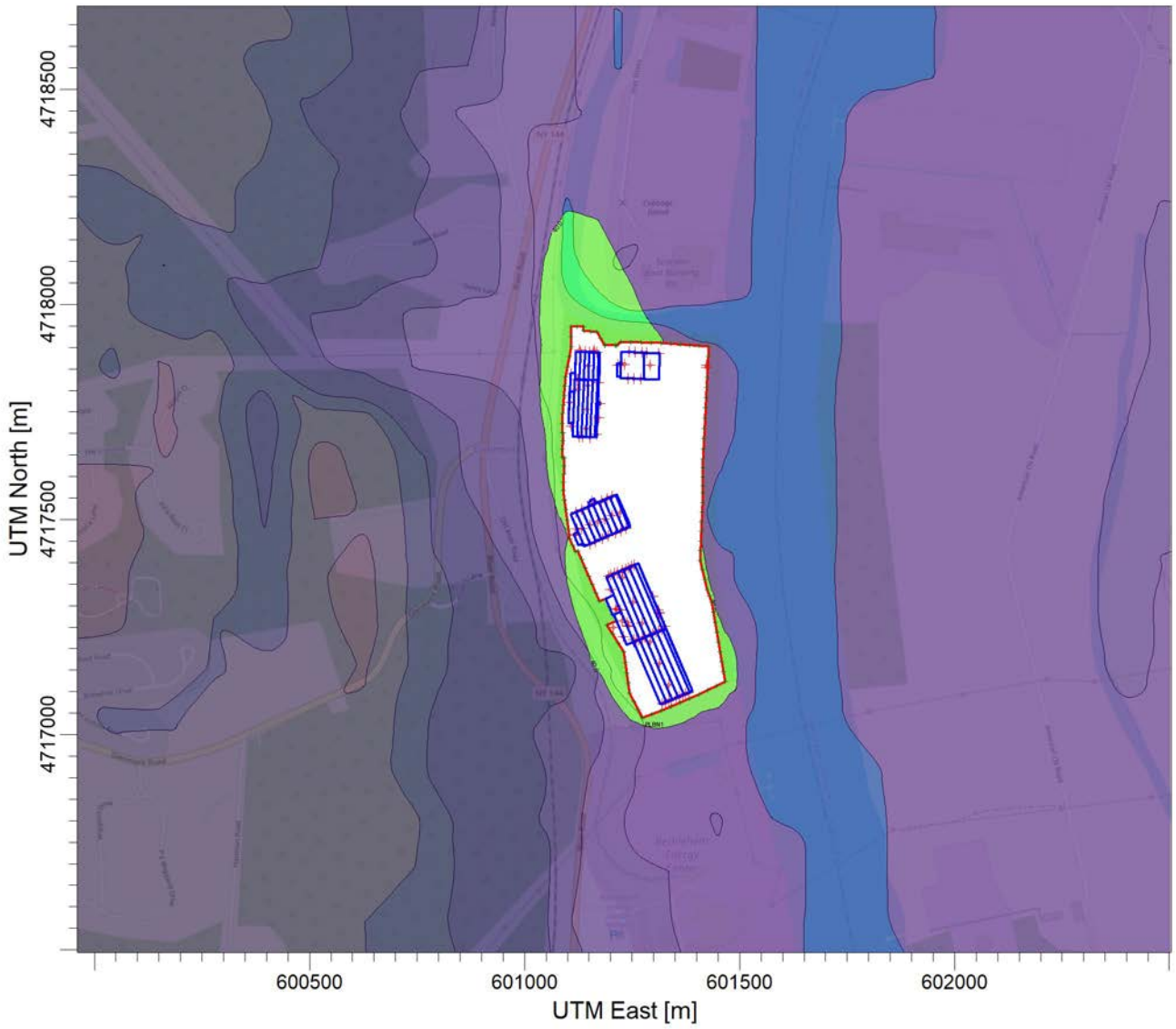
Max: 185 [ug/m^3] at (601383.99, 4717084.05)



COMMENTS:	SOURCES: **123**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 (0 — 0.5 km)	
	MAX: **185 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

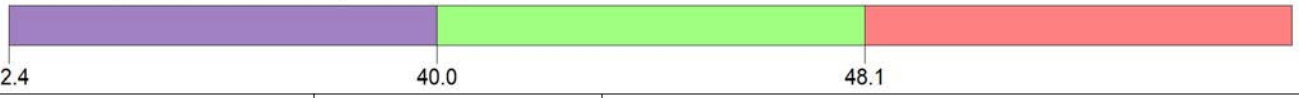
PROJECT TITLE:

E:\Marmen Inc Site Wide\Annual NO2 NAAQS TIER2
Marmen-Welcon Tower Manufacturing Plant - Annual NO2 NAAQS



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

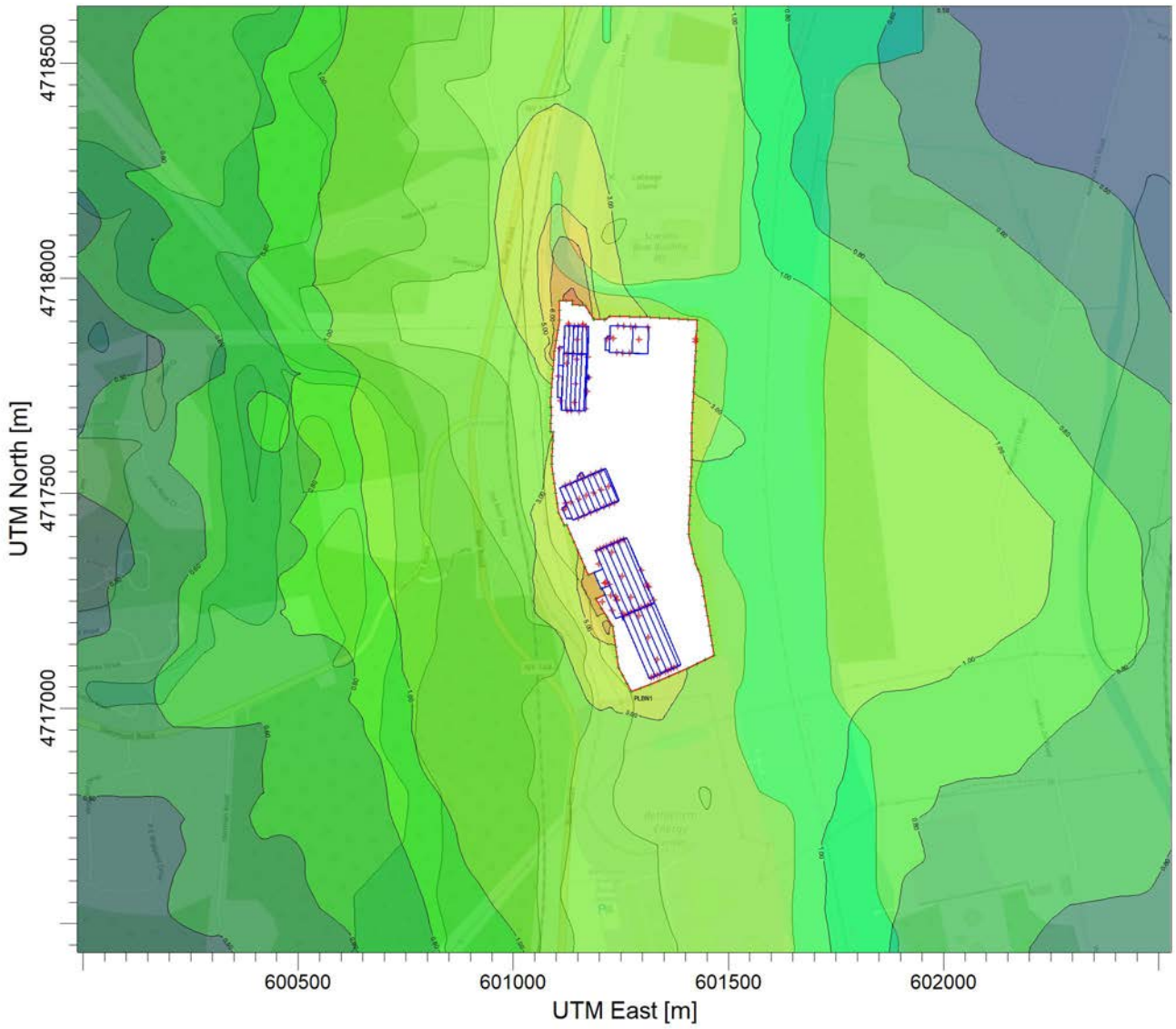
Max: 48.1 [ug/m^3] at (601247.47, 4717911.98)



COMMENTS:	SOURCES: **123**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	PROACTIVE Environmental Solutions
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 — 0 — 0.5 km	
	MAX: **48.1 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

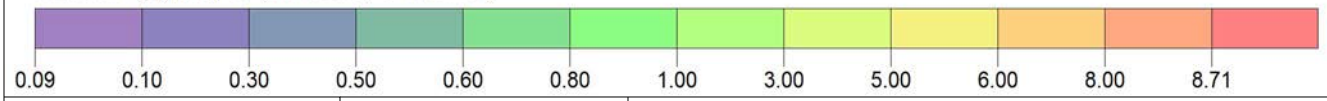
PROJECT TITLE:

E:\Marmen Inc Site Wide\24-Hr PM25 NAAQS
Marmen-Welcon Tower Manufacturing Plant - 24-Hr PM2.5 NAAQS



PLOT FILE OF 8TH-HIGHEST MAX DAILY 24-HR VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

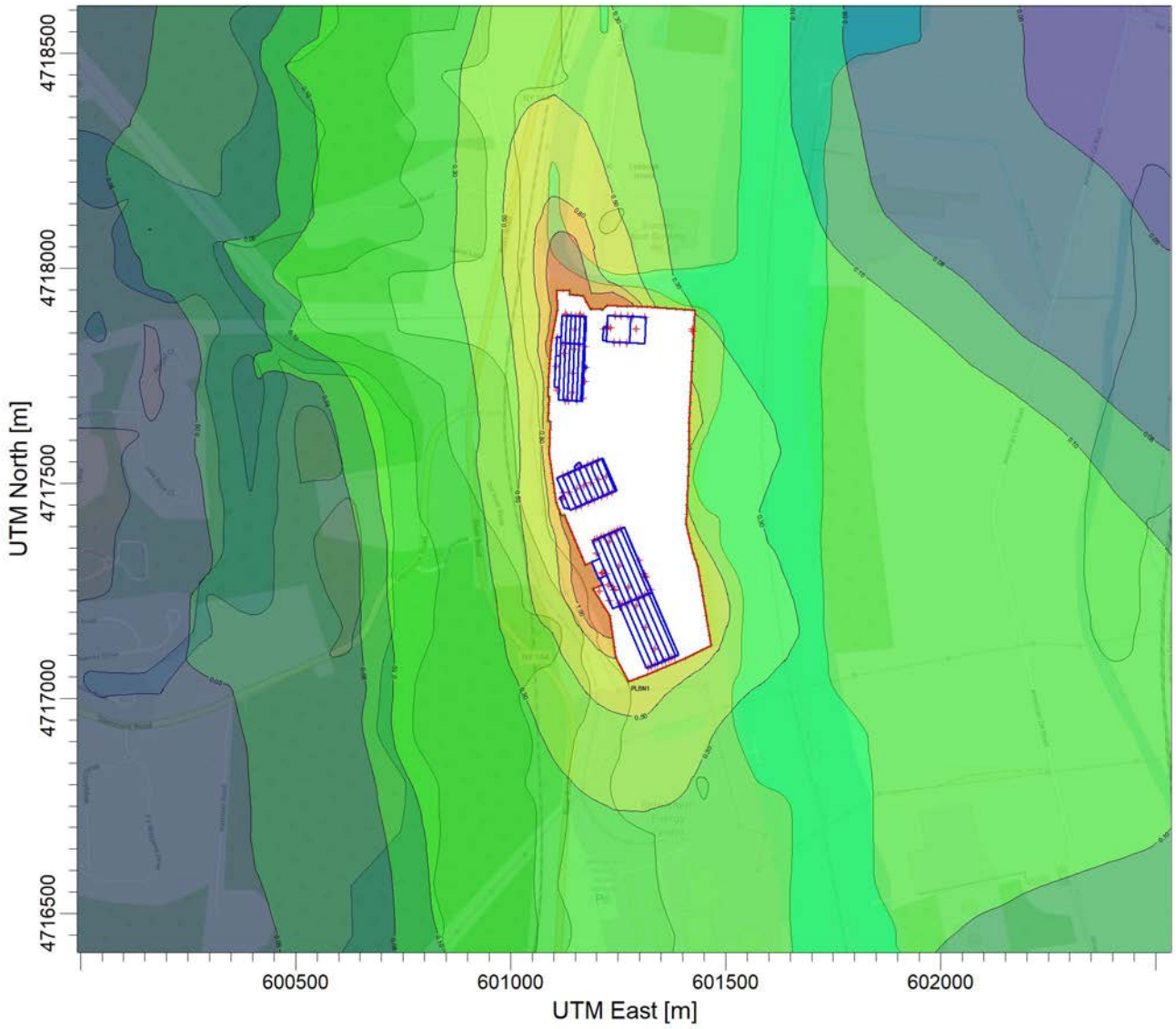
Max: 8.71 [ug/m^3] at (601152.79, 4717937.67)



COMMENTS:	SOURCES: **123**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	PROACTIVE Environmental Solutions
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 — 0 — 0.5 km	
	MAX: **8.71 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**

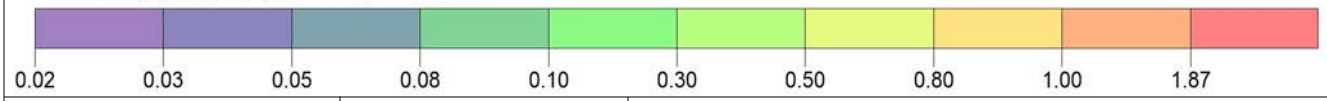
PROJECT TITLE:

E:\Marmen Inc Site Wide\Annual PM25 NAAQS
Marmen-Welcon Tower Manufacturing Plant - Annual PM2.5 NAAQS



PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL ug/m^3

Max: 1.87 [ug/m^3] at (601188.06, 4717316.37)



COMMENTS:	SOURCES: **123**	COMPANY NAME: **Proactive Environmental Solutions, LLC**	
	RECEPTORS: **4238**	MODELER: **Chris Geraghty, CCM**	
	OUTPUT TYPE: **Concentration**	SCALE: 1:16,000 — 0 — 0.5 km	
	MAX: **1.87 ug/m^3**	DATE: **3/12/2023**	PROJECT NO.: **Marmen-Welcon**