



Wolverine Technologies

Internal Correspondence

To: Martha Bixby

Date: July 1, 1994

From: Mark Romano *WR*

Subject: Requested Information; Air Emissions & C-R-T-K Violation

Thank you for the introduction yesterday. I wish to congratulate you on your new job and wish you all the best.

Per your request, I have enclosed the "AIR EMISSIONS INVENTORY" that Fox Engineering has prepared on our behalf. Should you have any questions, the permit was written by Mr. Donn Stone, P.E. @ Fox Engineering, 2501 N. Loop Drive, Ames, Iowa 50010, 1-515-296-7750.

Additionally, I have attached a "CHAIN OF EVENTS C-R-T-K VIOLATION" This is a copy of the log I keep on this issue. The balance of my file is approximately two inches thick. Sherry Carr should have copies of all other documents.

I am looking forward to possibly seeing you in Grinnell later this month. In the mean time if I can be of any help, please don't hesitate to call.

cc; J. Oleson

f;bixby.1
d;10

CTL031851

LETTER OF TRANSMITTAL

TO: Mr. Mark R. mano
Waverine Technologies, Inc.
P.O. Box 685
Grinnell, Iowa 50112

DATE: October 1, 1993
RE: Air Emission Inventory
PN: 8564.11

WE ARE FORWARDING
the following items:

☒ Attached

☐ Under separate cover via _____

☐ Shop Drawings

☐ Reports

☐ Copy of Letter

☐ Specifications

☐ Plans

☐ Change Order

☐ Pay Requests

☐ Reproducibles

☐ Plats

☐ Other: _____

	Description	
Air Emission Inventory		

THESE ARE TRANSMITTED AS CHECKED BELOW:

☒ For Approval
☐ For Your Use
☐ As Requested
☐ For Review & Comment
☐ For Bids Due

☐ Approved As Submitted
☐ Approved As Noted
☐ Returned For Corrections
☐ Returned After Loan to Us

☐ Resubmit -
☐ Submit -
☐ Return -

☐ Copies For Approval
☐ Copies For Distribution
☐ Corrected Copies

REMARKS:

Mark: These are ready for submittal to IDNR after your review. If you want
another cover letter with a different date let me know.

COPY TO:

SIGNED:

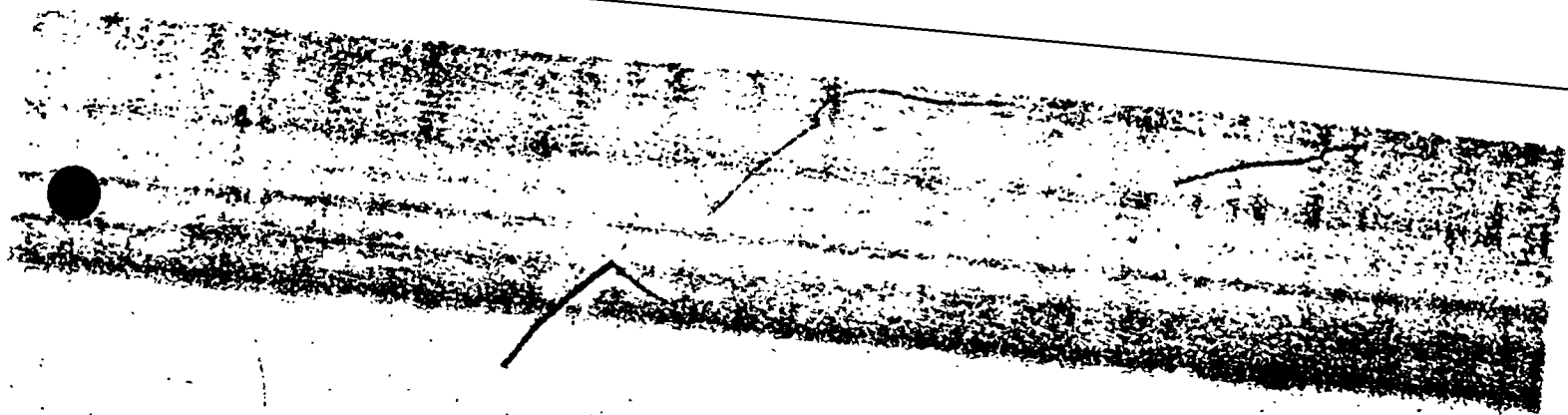
Donn L. Stone, P.E.

FOX ENGINEERING ASSOCIATES, INC.

2501 North Loop Drive, Suite 200, Ames, Iowa 50010
Telephone 515-296-7750 FAX 515-296-7740
WATS 800-542-7981

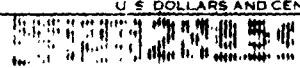
Form 9715

CTL031852



CUSTOMER'S RECEIPT DO NOT SEND THIS RECEIPT FOR PAYMENT
KEEP IT FOR OUR RECORDS

48847332374 931005 501120 *2*85**

SERIAL NUMBER	YEAR MONTH DAY	POST OFFICE	U.S. DOLLARS AND CENTS
PAY TO <i>IOWA DEPT. OF NAT.</i>	CHECKWRITER IMPRINT AREA 		
ADDRESS <i>900 EAST GRAND</i>	FROM <i>WOLVERINE TECH</i>		
<i>Des Moines, IA 50319</i>	ADDRESS <i>P.O. Box 685</i>		
C.O.D. NO. OR USED FOR <i>TEMP. AIR TRIPS Fee</i>	<i>Gerrard, Iowa</i>		

This receipt is your guarantee for a refund of your money order if it is lost or stolen, provided you fill in the Pay To and From information on the money order in the space provided. No claim for improper payment permitted 2 years after payment. If your money order is lost or stolen, present this receipt and file a claim for a refund at your Post Office.

At the time of purchase, the purchaser must sign the receipt and provide a registration number. If the money order is not cashed, the money order purchase date provided on the money order must be provided.

CTL031853

October 1, 1993



Iowa Department of Natural Resources
Air Quality Bureau
Attn: Emissions Inventory
900 East Grand
Des Moines, Iowa 50319

COPY

Re: Air Emission Inventory

Dear Sirs:

FOX Engineering Associates has prepared the attached Air Emission Inventory on behalf of Wolverine Technologies, Inc. Grinnell.

Wolverine Technologies, Inc. operates a facility in Grinnell, Iowa, to extrude house siding and window components from manufactured PVC materials. The data presented in the attachments package for the Emission Inventory Questionnaire identifies potential emission parameters from the manufacturing of the PVC materials, not the use of the materials in production. To properly address the inventory, manufacturers of the PVC material were interviewed to gain an understanding of the potential emissions during the PVC extrusion process.

PVC is manufactured from numerous components that contain VOC compounds, however, the PVC manufacturing process "fixes" the volatiles of that process in the resultant solid PVC materials. No volatiles are individually identified in the finished product as received at Wolverine. The PVC is received at the Wolverine facility in a solid form of a powder or pellet that is predominantly larger than the PM 10 size. The manufacturers of the solid PVC material utilized at Wolverine suggest that the minimum particle size of the PVC material is 80 microns. This data is on file at the Wolverine corporate office.

The PVC materials utilized at Wolverine are transferred pneumatically from truck or rail car to storage silos and to process. The pneumatic system exhausts air through baghouses as a method of solids collection reducing potential particulate discharges. The manufacturing process at Wolverine involves the heating of the PVC materials to a homogenous semi-solid state in an enclosed system prior to an extrusion process. The extrusion of the semi-solid PVC material does not emit any particulates nor is the temperature of the process high enough to release any vapors from the VOC materials bonded in the PVC solids.

Maximum design rates of the extrusion processes are noted on the appropriate inventory forms. The material transfer system and the material blending area are dependent upon the operation of the extrusion equipment and no design rates are identified for those material handling processes.

FOX Engineering Associates, Inc.
2501 North Loop Drive, Suite 200, Ames, Iowa 50010
800/433-3469 • 515/296-7750 • Fax 515/296-7740

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Heating of the Wolverine facility is accomplished by various area heating units located in the process area, warehouses, maintenance area and offices. One natural gas system supplies fuel to all of the heating units through a common meter. The air discharge of the heating units in the process area is a proportion reflective of the total fuel consumed in the facility with respect to the number of heaters in the process area. Also taken into consideration in determining the air emission of the process area heating units is the heat generated by the extrusion molding equipment during operation. Natural gas for the facility is purchased from Iowa Southern Utilities who has indicated the SO₂ and ash content to be 0.6 pounds and 3 pounds respectively. miss oversight

The operation of the maintenance paint booth, emission source 1, on a periodic basis has low actual emissions as allowed by IDNR granted air discharge permit 92-115. However, the potential to emit from this source indicates a theoretically high quantity that exceeds 25 tons per year of emission suggesting a mandatory Air Toxics Fee. An emission of this magnitude would be in violation of the air discharge permit granted to Wolverine. Wolverine has complied with the limits of the current air discharge permit and questions whether a fee based on a situation that would be in violation of a permit is applicable. Noting the relatively minor use of this emission point, Wolverine suggests that only actual emissions be considered in this instance for determining fees.

If you should need further clarification of the inventory, do not hesitate to contact me.

Very truly yours,
FOX Engineering Associates, Inc.


Donn L. Stone, P.E.

Chapter 90-30
NOV 1 - Emission Inventory
August
"Inventory Permit" = Synthetic
General Permit

CTL031855

Iowa Emissions Inventory Questionnaire (EIQ) Inventory of Emissions of Air Contaminants

Department of Natural Resources
Air Quality Bureau - Emissions Inventory
900 E. Grand Ave., Wallace Bldg.
Des Moines, IA 50319

FORM 1.0 GENERAL PLANT INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ No. 92.0895		EMISSIONS INVENTORY Year of Data: 1992	
Facility Street Address INDUSTRIAL AVE.		Mailing Address P.O. BOX 685			
City, State GRINNELL, IA	Zip Code 50112	City, State GRINNELL, IA	ZIP Code 50112		
Facility Contact Person MARK ROMANO		Where to Send EIQ in Future (Check One) ☒ Facility Mailing Address ☐ Parent Co. Mailing Address			
Facility Phone Number 1-515-236-7505		Product/Principal Activity VINYL SIDING AND WINDOW COMPONENT MANUFACTURING		Number of Employees 210	

CTSR COORDINATES

County POWESHIEK	Township 80 N	Section SW ¼ 21	Range 16 W
Parent Company Name CERTAINTED		Contact Person	Phone Number 301-223-7900
Mailing Address P.O. BOX 290		City WILLIAMSPORT	State IA ZIP Code 21795

EMISSIONS STATEMENT

TOTAL PLANT EMISSIONS (TONS PER YEAR)

ACTUAL EMISSIONS	PM 10	SOx	NOx	VOC	CO	LEAD	TOXICS
	0	0		0			0
POTENTIAL EMISSIONS	PM 10	SOx	NOx	VOC	CO	LEAD	TOXICS
	8	0		48			42

The undersigned certifies that they have personally examined and are familiar with the information and statements contained herein and further certifies that they believe this information and statements to be true, accurate and complete as required by 567 Iowa Administrative Code 21.1(3) pursuant to Iowa Code 455B.133(5).

Name of Company Executive Officer JOHN OLESON, PLANT MANAGER	Signature 	Date 10/7/93
Name of Person Completing Form DONN L STONE, P.E.	Preparer's Firm/Address FOX ENGINEERING ASSOCIATES, INC. AMES, IOWA	Preparer's Phone Number 515-296-7750

Duplicate this form as needed.

CTL031856

(DNR Form 542-1446)

FORM 1.2 SUMMARY OF ACTUAL EMISSIONS

 Facility Name
WOLVERINE TECHNOLOGIES, INC.

 EIQ No.
92.0895

 Year of
1992
SUMMARY OF ACTUAL EMISSIONS FOR EACH EMISSION POINT (Tons)

Point No.	Emission Point Description	PM10	SOx	NOx	VOC	CO	LEAD	TOXICS
1	PAINT BOOTH	0.00068	--	--	0.135	--	--	0.114
2	LATTICE TABLE	--	--	--	0.035	--	--	--
3	BLENDING AREA	--	--	--	--	--	--	--
4	PRODUCTION LINES 2 & 3	--	--	--	--	--	--	--
5	PRODUCTION LINES 3, 4, 5, 6, 7	--	--	--	--	--	--	--
6	PRODUCTION LINES 8, 9 & 4 OTHERS	--	--	--	--	--	--	--
7	BLENDED PVC COMPOUND STORAGE	--	--	--	--	--	--	--
8	PVC RESIN STORAGE	--	--	--	--	--	--	--
9	CALCIUM CARBONATE STORAGE	--	--	--	--	--	--	--
10	PROCESS AREA HEATING UNITS	0.0021	0.0004	--	--	--	--	--
Page TOTALS		0.00278	0.0004	--	0.170	--	--	0.114

Duplicate this form as needed.

CTL031857

(DNR Form 842-1448)

FORM 1.3 SUMMARY OF POTENTIAL EMISSIONS

Facility Name
WOLVERINE TECHNOLOGIES, INC.EIQ No.
92.0895Year of Data
1992

SUMMARY OF POTENTIAL EMISSIONS FOR EACH EMISSION POINT (Tons)

Point No:	Emission Point Description	PM10	SOx	NOx	VOC	CO	LEAD	TOXICS
1	PAINT BOOTH	8.28	--	--	48.30	--	--	41.66
2	LATTICE TABLE	--	--	--	0.14	--	--	--
3	BLENDING AREA	--	--	--	--	--	--	--
4	PRODUCTION LINES 2 & 3	--	--	--	--	--	--	--
5	PRODUCTION LINES 3, 4, 5, 6, 7	--	--	--	--	--	--	--
6	PRODUCTION LINES 8, 9 & 4 OTHERS	--	--	--	--	--	--	--
7	BLENDED PVC COMPOUND STORAGE	--	--	--	--	--	--	--
8	PVC RESIN STORAGE	--	--	--	--	--	--	--
9	CALCIUM CARBONATE STORAGE	--	--	--	--	--	--	--
10	PROCESS AREA HEATING UNITS	0.0261	0.0052	--	--	--	--	--
Page TOTALS		8.3061	0.0052	--	48.44	--	--	41.66

Duplicate this form as needed.

CTL031858

(DNR Form 542-1449)

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.	EIQ No. 92.0895	Year of Data: 1992
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[1] PROCESS IDENTIFICATION	[2] EMISSION POINT INFORMATION
Process Classification Code (SCC) No. 40200110	Emission Point No. 1 - MAINTENANCE PAINT BOOTH
Process Description (Process Description) PAINT BOOTH FOR MAINTENANCE USAGE	List other processes sharing this Emission Point. NONE A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.

[3] AIR POLLUTION CONTROL EQUIPMENT		
Description of Control Device	Pollutant Removed	Efficiency (%)
FABRIC AIR FILTER AND FAN SYSTEM	SOLID PARTICULATE	97

[4] ACTUAL OPERATING RATE/SCHEDULE				[5] MAXIMUM DESIGN RATES	
Annual Throughput 89 GALLONS				Maximum Hourly Design Rate NA	
Hours/Day 0.1	Days/Week 0.0025	Weeks/Year 0.000052		Maximum Annual Design Rate NA	
Jan-Mar (%) 25	Apr-Jun (%) 25	Jul-Sep (%) 25	Oct-Dec (%) 25		

EMISSIONS CALCULATIONS			
Source of Emission Factor (Check appropriate box)	☐ CEM	☐ Mass Balance	☐ AP 42
	☐ Stack Test	☒ SCC Factor	☐ Other _____

Please provide test data summaries or worksheets when using emission factors other than SCC factors.

Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
10	0.0153		97	0.00068	8.28
X					
X					
C	5.6			0.249	90.96
ad					

CTL031859

Indicate this form as needed.

(DNR Form 542-1450)

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ N 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. 30800704			Emission Point No. 2 - LATTICE TABLE		
SCC Description (Process Description) GLUING TABLE FOR FABRICATION OF PVC LATTICE PANELS			List other processes sharing this Emission Point. NONE A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.		
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed		Efficiency (%)
NONE			NONE		0
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 221 POUND			Maximum Hourly Design Rate NA		
Hours/Day	Days/Week	Weeks/Year	Maximum Annual Design Rate NA		
Jan-Mar (%) 25	Apr-Jun (%) 25	Jul-Sep (%) 25	Oct-Dec (%) 25		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM	☐ Mass Balance	☐ AP 42	
		☐ Stack Test	☒ SCC Factor	☐ Other _____	
<i>Please provide test data summaries or worksheets when using emission factors other than SCC factors.</i>					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10					
SOx					
NOx					
VOC	640			0.035	0.14
CO					
Lead					

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Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ No. 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 3 - BLENDING AREA		
SCC Description (Process Description) VENTILATION HOODS AND DUST COLLECTORS FOR PERSONNEL PROTECTION DURING WEIGHING PROCESS			List other processes sharing this Emission Point. NONE A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.		
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed		Efficiency (%)
SYSTEM OF 3 DUST COLLECTORS WITH INDIVIDUAL HOODS			PVC SOLIDS		99.999
AND FANS WHOSE EMISSIONS ARE FURTHER REDUCED BY A					
SOLIDS COLLECTOR					
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 8,131,226 POUNDS			Maximum Hourly Design Rate NA		
Hours/Day 24	Days/Week 7	Weeks/Year 50	Maximum Annual Design Rate NA		
Jan-Mar (%) 26	Apr-Jun (%) 26	Jul-Sep (%) 26	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM	☐ Mass Balance	☐ AP 42	☒ Other <u>MANUFACTURER'S DATA</u>
		☐ Stack Test	☐ SCC Factor		
<i>Please provide test data summaries or worksheets when using emission factors other than SCC factors.</i>					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	0.0		99.999	0.0	0.0
SOx					
NOx					
VOC					
CO					
Lead					

CTL031861

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ No. 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 4 - PRODUCTION LINES 2 & 3		
SCC Description (Process Description) EXTRUSION OF PVC SIDING FOR BUILDING EXTERIORS			List other processes sharing this Emission Point. NONE A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.		
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed		Efficiency (%)
ROTO CLONE CENTRIFICAL COLLECTOR W/WATER SPRAY			SOLIDS		99.9
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 14,635,962 POUNDS			Maximum Hourly Design Rate 2,500 lbs		
Hours/Day 24	Days/Week 7	Weeks/Year 50	Maximum Annual Design Rate 21,900,000 lbs		
Jan-Mar (%) 26	Apr-Jun (%) 26	Jul-Sep (%) 26	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM ☐ Stack Test ☐ Mass Balance ☐ SCC Factor ☒ AP 42 ☒ Other <u>MANUFACTURER'S DATA</u>			
Please provide test data summaries or worksheets when using emission factors other than SCC factors.					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	0.0		99.9	0.0	0.0
SOx					
NOx					
VOC					
CO					
Lead					

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ No. 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 5 - PRODUCTION LINES 3, 4, 5, 6, & 7		
SCC Description (Process Description) EXTRUSION OF PVC SIDING FOR BUILDING EXTERIORS			List other processes sharing this Emission P int. NONE		
A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.					
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed		Efficiency (%)
ROTO CLONE CENTRIFICAL COLLECTOR W/WATER SPRAY			SOLIDS		99.9
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 33,025,016 POUNDS			Maximum Hourly Design Rate 1,900 lbs		
Hours/Day 24	Days/Week 7	Weeks/Year 50	Maximum Annual Design Rate 18,644,000 lbs		
Jan-Mar (%) 26	Apr-Jun (%) 26	Jul-Sep (%) 26	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM	☐ Mass Balance	☐ AP 42	
		☐ Stack Test	☐ SCC Factor	☒ Other MANUFACTURER'S DATA	
Please provide test data summaries or worksheets when using emission factors other than SCC factors.					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	0.0		99.9	0.0	0.0
SOx					
NOx					
VOC					
CO					
Lead					

CTL031863

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ N 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 6 - PRODUCTION LINES 8 & 9 AND FOUR OTHER NON-NUMBERED LINES		
SCC Description (Process Description) EXTRUSION OF PVC COMPONENTS FOR WINDOW FRAME MANUFACTURING			List other processes sharing this Emission P int. NONE		
A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.					
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed		Efficiency (%)
ROTO CLONE CENTRIFICAL COLLECTOR W/WATER SPRAY			SOLIDS		99.9
[4] ACTUAL OPERATING RATE/SCHEDULE					
Annual Throughput 11,061,931 POUNDS				Maximum Hourly Design Rate 800 lbs	
Hours/Day 24	Days/Week 7	Weeks/Year 50		Maximum Annual Design Rate 7,008,000 lbs	
Jan-Mar (%) 26	Apr-Jun (%) 26	Jul-Sep (%) 26	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM	☐ Mass Balance	☐ AP 42	
		☐ Stack Test	☐ SCC Factor	☒ Other <u>MANUFACTURER DATA</u>	
<i>Please provide test data summaries or worksheets when using emission factors other than SCC factors.</i>					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	0.0		99.9	0.0	0.0
SOx					
NOx					
VOC					
CO					
Lead					

CTL031864

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ N . 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 7 - BLENDED PVC COMPOUND STORAGE SILO		
SCC Description (Process Description) PNEUMATIC TRANSPORT OF BLENDED PVC MATERIALS IN AND OUT OF STORAGE SILO			List other processes sharing this Emission Point. NONE		
A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.					
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device		Pollutant Removed		Efficiency (%)	
BAGHOUSES FOR PVC PARTICULATE COLLECTION		SOLIDS		99	
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 50,343,738 POUNDS			Maximum Hourly Design Rate NA		
Hours/Day 24	Days/Week 7	Weeks/Year 50	Maximum Annual Design Rate NA		
Jan-Mar (%) 26	Apr-Jun (%) 26	Jul-Sep (%) 26	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM ☐ Mass Balance ☐ AP 42 ☐ Stack Test ☐ SCC Factor ☒ Other <u>MANUFACTURER'S DATA</u>			
Please provide test data summaries or worksheets when using emission factors other than SCC factors.					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	0.0		99	0.0	0.0
SOx					
NOx					
VOC					
CO					
Lead					

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ N 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 8 - PVC RESIN STORAGE SILO		
SCC Description (Process Description) PNEUMATIC TRANSPORT OF BLENDED PVC MATERIALS IN AND OUT OF STORAGE SILO			List other processes sharing this Emission P int. NONE		
A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.					
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed	Efficiency (%)	
BAGHOUSES FOR PVC PARTICULATE COLLECTION			SOLIDS	99	
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 39,699,512 POUNDS			Maximum Hourly Design Rate NA		
Hours/Day 24	Days/Week 7	Weeks/Year 50	Maximum Annual Design Rate NA		
Jan-Mar (%) 26	Apr-Jun (%) 26	Jul-Sep (%) 26	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM	☐ Mass Balance	☐ AP 42	
		☐ Stack Test	☐ SCC Factor	☒ Other <u>MANUFACTURER'S DATA</u>	
<i>Please provide test data summaries or worksheets when using emission factors other than SCC factors.</i>					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	0.0		99	0.0	0.0
SOx					
NOx					
VOC					
CO					
Lead					

CTL031866

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ No. 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 9 - CALCIUM CARBONATE STORAGE SILO		
SCC Description (Process Description) PNEUMATIC TRANSPORT OF CALCIUM CARBONATE IN AND OUT OF STORAGE SILO			List other processes sharing this Emission Point. NONE		
A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.					
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed		Efficiency (%)
BAGHOUSES FOR PVC PARTICULATE COLLECTION			SOLIDS		99
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 100,000 POUNDS			Maximum Hourly Design Rate NA		
Hours/Day 24	Days/Week 7	Weeks/Year 50	Maximum Annual Design Rate NA		
Jan-Mar (%) 26	Apr-Jun (%) 26	Jul-Sep (%) 26	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM	☐ Mass Balance	☐ AP 42	
		☐ Stack Test	☐ SCC Factor	☒ Other <u>MANUFACTURER'S DATA</u>	
<i>Please provide test data summaries or worksheets when using emission factors other than SCC factors.</i>					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	0.0		99	0.0	0.0
SOx					
NOx					
VOC					
CO					
Lead					

Form 2.0 PROCESS INFORMATION

Facility Name WOLVERINE TECHNOLOGIES, INC.		EIQ No. 92.0895		Year of Data: 1992	
[1] PROCESS IDENTIFICATION			[2] EMISSION POINT INFORMATION		
Source Classification Code (SCC) No. NONE LISTED			Emission Point No. 10 - RADIANT HEATING SYSTEM		
SCC Description (Process Description) RADIANT HEAT UNIT FUELED BY NATURAL GAS			List other processes sharing this Emission Point. NONE		
A separate Form 2.0 must be completed for each process. Therefore, you may be required to complete more than one Form 2.0 for each Emission Point No.					
[3] AIR POLLUTION CONTROL EQUIPMENT					
Description of Control Device			Pollutant Removed		Efficiency (%)
NONE			NONE		
[4] ACTUAL OPERATING RATE/SCHEDULE			[5] MAXIMUM DESIGN RATES		
Annual Throughput 1.365 MCF			Maximum Hourly Design Rate NA		
Hours/Day NA	Days/Week NA	Weeks/Year NA	Maximum Annual Design Rate NA		
Jan-Mar (%) 65	Apr-Jun (%) 13	Jul-Sep (%) 0	Oct-Dec (%) 22		
EMISSIONS CALCULATIONS					
[6] Source of Emission Factor (Check appropriate box)		☐ CEM	☐ Mass Balance	☐ AP 42	
		☐ Stack Test	☐ SCC Factor	☒ Other <u>SUPPLIER DATA</u>	
Please provide test data summaries or worksheets when using emission factors other than SCC factors.					
Air Pollutant	[7] Emission Factor (Lbs/Unit)	[8] Ash or Sulfur (%)	[9] Control Efficiency (%)	[10] ACTUAL Emissions (Tons/Yr)	[11] POTENTIAL Emissions (Tons/Yr)
PM10	3			0.0021	0.0261
SOx	0.6			0.0004	0.0052
NOx					
VOC					
CO					
Lead					

Duplicate this form as needed.

CTL031868

(DNR Form 542-1450)

FORM 2.T R TOXICS WORKSHEET

Facility Name
WOLVERINE TECHNOLOGIES, INC.EIQ N .
92.0895Year Data:
199

Air Toxic Emissions by Emission Point No./SCC No.

Emission Pt N SCC No.	Air Toxic Chemical	CAS No.	Emission Factor (Lbs/UNIT)	Control Efficiency	Annual Throughput (UNITs/Yr)	[1] ACTUAL EMISSIONS (Tons/Yr)	[2] Maximum Annual Design Rate (UNITs/Yr)	[3] POTENTIAL EMISSIONS (Tons/Yr)
1 40200110	Xylene	1330207	2.351	0	89 gal.	0.104	NA	38.185
1 40200110	Methyl Ethyl Ketone	78933	0.214	0	89 gal.	0.010	NA	3.475

[4] Sum Air Toxics Emissions - by chemical

Air Toxic Chemical	CAS No.	Sum ACTUAL EMISSIONS (Tons/Yr)	Sum POTENTIAL EMISSIONS (Tons/Yr)
Xylene	130207	0.104	38.185
Methyl Ethyl Ketone	78933	0.010	3.475
TOTAL EMISSIONS (Tons/Yr)		0.114	41.66

For Each EMISSION POINT No. combine SCCs and: add together ACTUAL EMISSIONS and place totals in "TOXICS" Block on Form 1.2,
add together POTENTIAL EMISSIONS and place totals in "TOXICS" Block on Form 1.3.

*** TO DETERMINE WHETHER YOU WILL HAVE TO SUBMIT FORM 2.T-FEE, TEMPORARY AIR TOXICS FEE consult the Instructions.

Duplicate this form as needed.

CTL031869

(DNR Form 542-1463)

FORM 2.T-FEE TEMPORARY AIR TOXICS FEE

Facility Name WOLVERINE TECHNOLOGIES, INC.	EIQ No. 92.0895	19-1901
Facility Street Address INDUSTRIAL AVE.		
City, State GRINNELL, IOWA	Zip 50112	
Mailing Address P.O. BOX 685		
City, State GRINNELL, IOWA	Zip 50112	

For DNR use only

Use this form to report and pay fees on ACTUAL Emissions of air toxics subject to the Temporary Air Toxics Fee (Iowa Code 455B.133, §67 Iowa Administrative Code chapter 30). Air Toxic Chemicals subject to reporting and fees are listed in Attachment T.

If Total POTENTIAL Emissions, as reported on Form 2.T, are in sum 25 tons or greater, or if any individual air toxic chemical POTENTIAL Emissions are 10 tons or greater, the facility will be subject to the Temporary Air Toxic Fee. Methodologies used for determining air emissions established under Section 313 of the federal Emergency Planning and Community Right-to-know Act, including threshold limitations and de minimus exclusions may be used to determine emissions subject to fees.

Actual Emissions must include both Stack Emissions and Fugitive Emissions.

TONS OF AIR TOXICS EMITTED TO THE ATMOSPHERE During Calendar Year 1992

Chemical Name	Cas No.	Actual Emissions
PAINT BY PPG		
XYLENE	1330207	0.104
METHYL ETHYL KETONE	78933	0.010

TOTAL THIS PAGE		0.114
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FEE / PENALTY

Total Actual Emissions		FEE DUE		Penalty @ 10% of Fee Due		TOTAL FEE & PENALTY DUE
0.114 (tons)	X \$25 =	\$ 2.85	+	\$ 0	=	\$ 2.85

CERTIFICATION - Certification by Company Executive Officer Required

I CERTIFY THAT EMISSION TOTALS ARE CORRECT AND APPROPRIATE FEES ARE ENCLOSED.

Executive Officer Signature JOHN OLESON	Title PLANT MANAGER	Date 10/7/93	Phone No. 515-236-7505
Print name			

Duplicate this form as needed.

CTL031870

(DNR form 542-1413)

CHAIN OF EVENTS

C-R-T-K VIOLATION

06-24-92 EPCRA inspection in Grinnell by Phil Calabrese

07-30-92 Received letter of non compliance from Doug Elders giving choice to disagree or correct in 30 days

08-07-92 Everhart to Elders explaining why we did not report resin (29 CFR 1910.1200 (d) and requesting correction to the inspection report

02-16-93 Phone conversation between Everhart and Petty. No notes available. I can only assume it deals with explanation of the process and possibly why the errors were made in interpreting the process.

03-02-93 Everhart to Elders. Again explaining our position and also clarifying that no one from the plant amend or submit the amended SARA report.
(Evidently, between the dates of 2-16-93 & 3-2-93 there is a memo, a conversation or the likes between Petty and Patel implying that we submitted an amended report)

03-17-93 Everhart to Patel. Ken sent a letter due to the fact that eight different phone messages have not been returned from Patel.

04-05-93 Mellon to Patel. Mellon references test data in compliance w/ 29 CFR 1910.1200 determining the non hazardous rating of PVC.

04-05-93 Phone calls from Patel & Hooper to Everhart. Dealing with the change in personnel at IDOL?

05-03-93 Everhart to Patel & Hooper. Hooper now takes over for the Iowa Department of Labor (IDOL) and restates our compliance and their misinterpretation.

05-26-93 Everhart to Campbell

REDACTED

07-06-93 Maresca to Everhart. Geon supports our position with statements of process parameters.

CTL031871