Jefferson Publishing Co. Inc. PO BOX 966 CHARLES TOWN, WV 25414 (304)725-2046 jennysee@frontier.com

# INVOICE

BILL TO WVDEP Division of Air Quality Account: L00050 601 57th St. SE Charleston, WV 25304



INVOICE # 66800
DATE 04/24/2024
DUE DATE 05/20/2024
TERMS Payment due in full

157	ACTIVITY	QTY	RATE	AMOUNT
5500	Legal Classified  Apr. 24 Air Quality Permit Notice-Notice of Open Comment Period; TeMa North America, LLC applied for a Modification Permit for a plastic extrusion facility located in Jefferson County, WV	11	3.68	40.48
Legal Clas	Legal Classified Cert. & clipping fee	1	7.50	7.50
	The Spirit of Jefferson Accepts All Major Credit Cards. Call us at 304-	BALANCE DUE		\$47.98

# Certificate of Publication JEFFERSON PUBLISHING COMPANY, INC., Publisher SPIRIT OF JEFFERSON ADVOCATE WE

WV DEP / DIV OF AIR QUALITY

	Charles Town	i, w. va. 100
I hereby certify that the annexed in the case of Tema North	Comment America; LLC	mit Notice-Notice of open period applied for a Modification
Permit for a plasti	c extrasion fa	cility located in Jellerson
		successive weeks, in the Spirit of Jefferson
Advocate, a newspaper published	in Charles Town, Jeffe	rson County, West Virginia, in the issues of
April 24		, 20 <del>24</del> ,
as required by law.	Fd	itor/Manager, Spirit of Jefferson Advocate
State of West Virginia County of Jefferson Personally appeared before me,	Tim Cook	, Editor/Manager
of the Spirit of Jefferson Advocate	, and made oath that the	above certificate is true and correct.
Commission expires	OFFICIAL SEAL, NOTARY PUBLIC STATE OF WEST VIRGINIA CARA D. YOUNG Jefferson Publishing Co., Inc. P. O. Box 968 Charles Town WV 25414 My Commission Expires Jan. 27, 2029	Notary Public

# AIR QUALITY PERMIT NOTICE Notice of Open Comment Period

On January 16, 2024, TeMa North America, LLC applied to the WV Department of Environmental Protection, Division of Air Quality (DAQ) for a Modification Permit for a plastic extrusion facility located in Jefferson County, WV at 39.356546 and -77.870943. A preliminary evaluation has determined that all State and Federal air quality requirements will be met by the proposed facility. The DAQ is providing notice to the public of an open comment period for permit application R13-3414A.

The following increases in potential emissions will be authorized by this permit action: Particulate Matter (PM) 5.82 tons per year (tpy), PM10 of 5.05 tpy, PM2.5 of 4.76 tpy Carbon Monoxide 0.13 tpy, Volatile Organic Compounds 2.48 tpy, and Total Hazardous Air Pollutants

(HAPS) 0.11 tpy

Written comments or requests for a public meeting must be received by the DAQ before 5:00 p.m. on Friday, May 24, 2024. A public meeting may be held if the Director of the DAQ determines that significant public interest has been expressed, in writing, or when the Director deems it appropriate.

The purpose of the DAQ's permitting process is to make a preliminary determination if the proposed modification will meet all state and federal air quality requirements. The purpose of the public review process is to

accept public comments on air quality issues relevant to this determination. Only written comments received at the address noted below within the specified time frame, or comments presented orally at a scheduled public meeting, will be considered prior to final action on the permit. All such comments will become part of the public record.

Brian D. Carney, PE WV Department of Environmental Protection Division of Air Quality 601 57th Street, SE Charleston, WV 25304 Telephone: 304/926-0499, ext. 41287

Email: brian.d.carney@wv.gov
Additional information, including copies of the draft permit, application and all other supporting materials relevant to the permit decision may be obtained by contacting the engineer listed above. The draft permit and engineering evaluation can be downloaded at: https://dep.wv.gov/daq/permitting/Pages/NSR-Permit-Applications.aspx 4/24/1t

# Certificate of Publication JEFFERSON PUBLISHING COMPANY, INC., Publisher SPIRIT OF JEFFERSON ADVOCATE

Char	les Town, W. Va. February 21 2024
I hereby certify that the annexed Air Quali	ty Permit Notice of Application
in the case of Tema North America,	LLC; to install an XPS Board
Production System at 395	Steeley Way, Kearnspuille, WV
has been published once a week for	successive weeks, in the Spirit of Jefferson
Advocate, a newspaper published in Charles Tow	n, Jefferson County, West Virginia, in the issues of
February 21	, 20 <u>24</u> ,
as required by law.	In Cook
	Editor/Manager, Spirit of Jefferson Advocate
State of West Virginia County of Jefferson Personally appeared before me,	, Editor/Manager
of the Spirit of Jefferson Advocate, and made oath	that the above certificate is true and correct.
Commission expires  OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGII CARA D. YOUNG Jefferson Publishing Co. P. O. Box 966 Charles Town WV 254 My Commission Expires Jan. 2	, Inc.

Notice is given that TeMa a construction and modification permit to install an XPS Board tude and longitude coordinates The applicant estimates the North America, LLC has applied tion, Division of Air Quality, for Way, Kearneysville, Jefferson County, West Virginia. The latiproposed revisions will increase lowing Regulated Air Pollutants: PM of 5.82 tons per year (tpy), to the West Virginia Depart ment of Environmental Protec-Production System at their existing facility located at 395 Steeley are: 39.356546 and -77.870943. the potential to discharge the fol-Notice of Application

LEGAL ADVERTISEMEN

AIR QUALITY

PERMIT NOTICE

tpy, formaldehyde of 0.00929 tpy, Acrolein of 0.00013 tpy, MDI of 0.096 tpy for total HAPs Startup of operation is planned to begin on or about the 15th day of May, 2024. Written com-Acethaldehyde of 0.00577 tpy Propionaldehyde of 0.00063 tpy tpy, VOC at 2.48 tpy, CO of 0.13 PM10 of 5.05 tpy, PM2.5 of 4.76 of 0.11 tpy.

ments will be received by the

West Virginia Department of En-

vironmental Protection, Division

least 30 calendar days from the

Charleston, WV 25304, for al

of Air Quality, 601 57th Street

Any questions regarding (304) 926-0499, Extension 41281, during normal business this permit application should be directed to the DAQ a date of publication of this notice Written comments will also be received via email at DEPAirQuali tyPermitting@WV.gov.

By: TeMa North America, LLC Lorenzo Spagna Kearneysville, West Virginia Chief Executive Officer 395 Steeley Way Dated this the 21st day of Feb ruary 2024. hours.



# Incomplete

1 message

Carney, Brian D <bri> carney@wv.gov>

Fri, Feb 9, 2024 at 9:45 AM

To: lorenzo.spagna@iwisholding.com, "peward@potesta.com" peward@potesta.com

Cc: Beverly D McKeone <beverly.d.mckeone@wv.gov>, Stephanie R Mink <stephanie.r.mink@wv.gov>

RE: Application Status: Incomplete
TeMa North America, LLC/Kearneysville, WV
Permit Application (R13-3414A)
Plant ID No. (037-00110)

Mr. Spagna:

Your application for a modification permit for a plastic extrusion facility was received by this Division on January 16th, 2024 and assigned to the writer for review. Upon initial review of said application, it has been determined that the application as submitted is incomplete based on the following items:

- 1. Need application Fee of \$1,000.
- 2. Need the Affidavit of Publication for the Class I legal ad.
- 3. Revise or clarify the inconsistencies shown with the markups on the attached application pages.

Please address the above deficiencies in writing within fifteen (15) days of the receipt of this email. Application review will not commence until the application has been deemed to be technically complete. Failure to respond to this request in a timely manner may result in the denial of the application.

Should you have any questions, please contact Brian D. Carney, P.E. at (304) 926-0499 ext.41287 or reply to this email.

Brian D. Carney, P.E. Engineer, NSR Permitting 601 57th Street SE Charleston, WV 25304 304-414-1287





# Fwd: TEMA North America, LLC, Kearneysville, WV

1 message

Air Quality Permitting, DEP <depairqualitypermitting@wv.gov>

Wed, Jan 17, 2024 at 8:45 AM

To: Stephanie R Mink <stephanie.r.mink@wv.gov>, Brian D Carney <bri>d.carney@wv.gov>

Cc: Beverly D McKeone <beverly.d.mckeone@wv.gov>

Stephanie, Please assign Modification R13-3414A, 037-00110 from TEMA North America to Brian Carney.

Application fee is \$1000. Need affidavit of publication.

Bev

----- Forwarded message -----

From: Patrick E. Ward <PEWard@potesta.com>

Date: Tue, Jan 16, 2024 at 5:12 PM

Subject: TEMA North America, LLC, Kearneysville, WV

To: DEPAirQualityPermitting@wv.gov < DEPAirQualityPermitting@wv.gov >

Cc: Lorenzo Spagna <lorenzo.spagna@iwisholding.com>, Marco Gobbo <marco.gobbo@iwisholding.com>, Rhonda L. Henson

<rl>henson@potesta.com>

Please see the attached application.

Regards,

Patrick Ward

Potesta & Associates, Inc.

7012 MacCorkle Avenue, S.E.

Charleston, West Virginia 25304

Ph: (304) 342-1400

Direct: (304) 414-4751

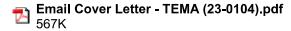
Fax: (304) 343-9031

This electronic communication and its attachments contain confidential information. The recommendations and/or design data included herein are provided as a matter of convenience and should not be used for final design or ultimate decision making. Rely only on the final hardcopy materials bearing the consultant's original signature and seal. If you have received this information in error, please notify the sender immediately.

# 2 attachments



R13 Modification App. for XPS Board Extrusion Process - TeMa (23-0104).pdf 14191K





# WV DAQ Permit Application Status for TEMA North America, LLC, Jefferson County Operations

1 message

Mink, Stephanie R <stephanie.r.mink@wv.gov>

Wed, Jan 17, 2024 at 11:09 AM

To: lorenzo.spagna@iwisholding.com, "Patrick E. Ward" <PEWard@potesta.com>

Cc: "McKeone, Beverly D" <beverly.d.mckeone@wv.gov>, Brian D Carney <bri>d.carney@wv.gov>, Kimberly A Scott <br/>kimberly.a.scott@wv.gov>, Barbara A Miles <br/>barbara.a.miles@wv.gov>

**Application Status** 

**TEMA North America, LLC, Jefferson County Operations** 

Facility ID: 037-00110

**Application No. R13-3414A** 

Mr. Spagna:

Your application for a Modification Permit for the Jefferson County Operations Facility was received by this division on January 17, 2024, and was assigned to Brian Carney. The following items were not included in the initial application submittal:

Copy of Class I legal advertisement affidavit.

# Application fee of \$1,000.00.

• Credit card payments may be made by contacting the Accounts Receivable section at 304-926-0499 x 41195. DEP accepts Visa and MasterCard only. Please have the Facility ID Number and Application Number available when calling.

These items are necessary for the assigned permit writer to continue the 30-day completeness review.

Within 30 days, you should receive notification from Brian Carney stating the status of the permit application and, if complete, given an estimated time frame for the agency's final action on the permit.

Any determination of completeness shall not relieve the permit applicant of the requirement to subsequently submit, in a timely manner, any additional or corrected information deemed necessary for a final permit decision.

Should you have any questions, please contact the assigned engineer, Brian Carney, at 304-926-0499, extension 41287.

# Stephanie Mink

**Environmental Resources Associate** 

West Virginia Department of Environmental Protection

Division of Air Quality, Title V & NSR Permitting

601 57<sup>th</sup> Street SE

Charleston, WV 25304

Phone: 304-926-0499 x41281



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr. Governor

Thomas W. Easterly. Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204 (317) 232-8603 Toll Free (800) 451-6027 www.idem.IN.gov

Mr. Rob Wells Primex Plastics Corporation 1235 North F Street Richmond, Indiana 47374

March 3, 2009

Re: Permit By Rule Status 177-27338-00065

Dear Mr. Wells:

On January 6, 2009, Primex Plastics Corporation submitted a letter with supporting data to the Office of Air Quality (OAQ) indicating that the collocated, stationary, plastic sheet production source, located at 1235 North F Street, Richmond, Indiana 47374 and 2175 Williamsburg Pike, Richmond, Indiana 47374, satisfies the criteria to operate under the provisions of 326 IAC 2-10 (Permit by Rule). Based on the data and information submitted (Attachment A - Source Determination, Attachment B - Emissions Calculations) and the provisions of 326 IAC 2-10 (Permit by Rule), Primex Plastics Corporation, is now operating under Permit by Rule (PBR) Status.

Pursuant to 326 IAC 2-10 (Permit by Rule), this source shall comply with the following conditions:

- (a) The source limits actual emissions for every twelve (12) month period to less than twenty percent (20%) of any threshold for the following:
  - (1) A major source of regulated air pollutants, as defined by 326 IAC 2-7-1(22) (i.e., one hundred (100) tons per year of any regulated air pollutant, in all areas except areas classified as serious, severe, and extreme nonattainment for ozone). [326 IAC 2-10-3.1(1)(A)]
  - (2) A major source of hazardous air pollutants (HAPs), as defined in Section 112 of the Clean Air Act (i.e., ten (10) tons per year of any individual HAP or twenty-five (25) tons per year of any combination of HAPs). [326 IAC 2-10-3.1(1)(B)]
- (b) The source shall not rely on air pollution control equipment to comply with the above-mentioned limitations. [326 IAC 2-10-3.1(2)]
- (c) Not later than thirty (30) days after receipt of written request by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), or U.S. Environmental Protection Agency (EPA), the owner or operator shall demonstrate that the source is in compliance with the above-mentioned conditions. [326 IAC 2-10-4.1]
- (d) Compliance demonstration shall be based on actual emissions for the previous 12 months and may include, but is not limited to, fuel or material usage or production records. No other demonstration of compliance shall be required. [326 IAC 2-10-4.1]

This source is hereby notified that this Permit by Rule approval does not relieve the source of the responsibility to comply with the provisions of any applicable federal, state, or local requirements, such as New source Performance Standards (NSPS), 40 CFR Part 60, or National Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61 or 40 CFR Part 63. [326 IAC 2-10-5.1]

Any change or modification which will alter operations in such a way that the source will no longer comply with 326 IAC 2-10 (Permit by Rule), must obtain the appropriate approval from the OAQ under 326 IAC 2-1.1, 326 IAC 2-2, 326 IAC 2-3, 326 IAC 2-7, 326 IAC 2-8, or 326 IAC 2-9 before such change may occur. This source may at any time apply for a state operating permit under 326 IAC 2-6.1, a Part 70 permit under 326 IAC 2-7, a FESOP under 326 IAC 2-8, or an operating agreement under 326 IAC 2-9, as applicable. [326 IAC 2-10-1(b)]

Any violation of 326 IAC 2-10 (Permit by Rule) may result in administrative or judicial enforcement proceedings under IC 13-30-3 and penalties under IC 13-30-4, IC 13-30-5, or IC 13-30-6. [326 IAC 2-10-6.1]

A copy of the PBR is available on the Internet at: <a href="http://www.in.gov/ai/appfiles/idem-caats/">http://www.in.gov/ai/appfiles/idem-caats/</a>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: <a href="http://www.in.gov/ai/appfiles/idem-caats/">www.idem.in.gov/ai/appfiles/idem-caats/</a>.

If you have any questions on this matter, please contact Ms. Desrosiers, of my staff, at 317-234-5374 or 1-800-451-6027, and ask for extension 4-5374.

Sincerely,

Iryn Calijung, Section Chief

Permits Branch
Office of Air Quality

Attachments:

A - Source Determination

B - Emissions Calculations

IC/hd

CC:

File - Wayne County

Wayne County Health Department

Air Compliance Section

Billing, Licensing, and Training Section

Primex Plastics Corporation Richmond, Indiana Permit Reviewer: Hannah L. Desrosiers

# Attachment A - Source Determination Primex Plastics Corporation

Primex Plastics Corporation (Primex) has two plants in Richmond. Plant A is located at 1235 North F Street and Plant B is located at 2175 Williamsburg Pike. The two plants are approximately 2.5 miles apart. IDEM, OAQ has examined whether the two plants are part of the same source.

The term "source" is defined at 326 IAC 1-2-73. In order for these two plants to be considered one source, they must meet all three of the following criteria:

- (1) the plants must be under common ownership or common control:
- (2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (3) the plants must be located on contiguous or adjacent properties.

IDEM, OAQ will first look at whether the two plants will be under common ownership or common control. The two plants are owned by Primex, therefore common ownership exists, and the first element of the definition is met.

The second element of the source definition is whether the plants have the same two-digit Standard Industrial Classification (SIC) Code, or if one serves as a support facility for the other. The SIC Codes can be found at <a href="http://www.osha.gov/pls/imis/sicsearch.html">http://www.osha.gov/pls/imis/sicsearch.html</a> on the United States Department of Labor, Occupational Safety and Health Administration website. The proper two-digit code for both plants is Major Group 30: Rubber and Miscellaneous Plastics Products.

A plant is considered a support facility if at least 50% of its total output is dedicated to another plant. Plant B sends 80% of its output, reworked plastic, to Plant A. Plant A does not send any output to Plant B. Therefore, Plant B is a support facility to Plant A. Since the two plants have the same two-digit SIC Code and a support facility relationship, the two plants meet the second element of the definition of a source.

Since the plants are located on properties 2.5 miles apart and 80% of the output of Plant B goes to Plant A, the plants are adjacent and the third element of the definition is met. IDEM, OAQ has determined that the two plants meet all the elements of the source definition and are part of the same source.

01/29/2009 initial source determination conducted.

# Attachment B - Emission Calculations Actual Collocated Emissions Summary

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

	PM (tpy)	PM10* (tpy)	VOC (tpy)	CO (tpy)	Combined HAPs (tpy)
Extrusion	2.26	2.26	6.41	2.25	1.26
Grinding	8.85	8.85			
Conveyance	0.48	0.48			
Wood Pallets Construction	0.15	0.15			
Plastic Scrap Cutting	0.15	0.15			
Pallet Washing			0.04		
Total	11.89	11.89	6.45	2.25	1.26

# Notes:

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

<sup>\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

# Attachment B - Emission Calculations Actual Collocated Emissions - 12-Month Emissions for 2008

Company Name: Primex Plastics Corporation
Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

## Criteria Pollutant Emissions

Actual Material Usage (lbs/yr)						
Resin	Raw Material	Colorant				
ABS	13,272,000	580,000				
HDPE	61,986,000	1,561,000				
PETG	2,724,000	3,587				
PP	6,916,000	561,000				
PS	34,690,000	1,712,000				
Additives		670,000				

Extrusion		Particulate Matter (PM/PM10) *		Volatile Organic Compounds (VOC)			Carbon Monoxide (CO)			
Material	Purchases (lbs/yr)	Emission Factor (lbs/MMlbs)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)	Emission Factor (lbs/MMlbs)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)	Emission Factor (lbs/MMlbs)	Actual Emissions (lbs/yr)	Actual Emissions (tons/yr)
ABS	14,405,580	30.3	436.49	0.2182	190	2737.06	1.3685	0	0.00	0.0000
HDPE	65,591,430	26.6	1744.73	0.8724	30.7	2013.66	1.0068	50	3279.57	1.6398
PETG	2,947,435	30.0	88.42	0.0442	35	103.16	0.0516	50	147.37	0.0737
PP	7,839,330	30.3	237.53	0.1188	104	815.29	0.4076	90	705.54	0.3528
PS	37,632,080	53.3	2005.79	1.0029	190	7150.10	3.5750	10	376.32	0.1882
Total				2.26			6.41			2.25

Purchases (lbs/yr) = Raw Material (lbs/yr) + Colorant (lbs/yr) + Additives (lbs/yr)

Additives were assumed to be equally distributed between each resin

3% of material is scrapped and recycled, this amount was added to "Purchases (lbs/yr)"

Actual Emissions (tons/year) = Purchases (lbs/yr) x Emission Factor (lbs/1,000,000 lbs) / 2000 (lbs/ton)

Grinding	Max Capacity (lbs/yr)	PM/PM10 Emission Factor* (lb PM/ton)	PM/PM <sub>10</sub> Emissions (tons/yr)
Total	119 588 000	0.296	8.85

Actual Emissions (tons/year) = [Max Capacity (lbs/yr) / 2000 (lbs/ton)] \* [Emission Factor (lb PM/ton) / 2000 (lb/ton)]

Conveyance	Max Capacity (lbs/yr)	PM Emission Factor* (lb PM/ton)	*Control Efficiency	PM/PM10 Emissions (lbs/yr)	PM/PM10 Emissions (tons/yr)
Total	119.588.000	0.80	98.00%	956.70	0.48

\*Dry filters on the silos and blowers of the storage and handling operations are considered integral to the process. Therefore, PTE is based on control.

Actual Emissions (tons/year) = Max Capacity (lbs/hr) /2000 (lbs/ton) \* Emission Factor (lb PM/ton) \* (1-Control Efficiency (%)) / 2000 (lbs/ton)

Miscellaneous Operations	Maximum Rate (lbs/hr)	Emission Factor (lbs PM/ton)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)	Allowable Emissions (lbs/hr)
Wood Pallets Construction	200	0.35	0.04	0.15	0.88
Plastic Scrap Cutting	200	0.35	0.04	0.15	0.88
Total			0.07	0.31	

 $Actual\ Emissions\ (tons/year) = [(Maximum\ Rate\ (lbs/hr)\ ^*\ Emission\ Factor\ (lbs\ PM/ton))\ /\ 2000\ (lbs/ton)]\ ^*\ 8760\ (hrs/yr)\ /\ 2000\ (lbs/ton)]$ 

Pallet Washing	Usage (gal/yr)	Density (lb/gal)	VOC (wt %)	HAP (wt %)	VOC Emissions (tons/yr)	HAP Emissions (tons/yr)
Total	96	8.66	10.00%	0.00%	0.04	0.00

 $\label{eq:actual VOC Emissions (tons/year) = Usage (gal/yr) * Density (lb/gal) * VOC (wt %) / 2000 (lbs/ton) \\ Actual HAP Emissions (tons/year) = Usage (gal/yr) * Density (lb/gal) * HAP (wt %) / 2000 (lbs/ton) \\ \\$ 

### Notes

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

<sup>\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

# Attachment B - Emission Calculations Actual Collocated Emissions - 12-Month Emissions for 2008

Company Name: Primex Plastics Corporation
Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

# Hazardous Air Pollutant (HAP) Emissions from Extrusion

# ABS Processing

Purchases (lbs/yr)	14,405,580						
HAP	1,3-butadiene	Acrylonitrile	Ethyl benzene	Styrene	Cumene	Acetophenone	Total
Emission Factor	0.93	5.74	27.6	130	3.29	2.78	
Emissions (tons)	0.0067	0.0413	0.1988	0.9364	0.0237	0.0200	1.2269

## HDPE Processing

Purchases (lbs/yr)	65,591,430				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.14	0.02	0.09	0.02	
Emissions (tons)	0.00459	0.00066	0.00295	0.00066	0.0089

# PETG Processing

Purchases (lbs/yr)	2,947,435				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.14	0.02	0.09	0.02	
Emissions (tons)	0.00021	0.00003	0.00013	0.00003	0.0004

# PP Processing

Purchases (lbs/yr)	7,839,330				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.74	0.01	0.46	0.05	
Emissions (tons)	0.00290	0.00004	0.00180	0.00020	0.0049

# PS Processing

1 3 1 10cessing					
Purchases (lbs/yr)	37,632,080				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.74	0.01	0.46	0.05	
Emissions (tons)	0.01392	0.00019	0.00866	0.00094	0.0237

Combined HAPs Total 1.2648 tons

Methodology
Actual HAP Emissions (tons/year) = Purchases (lbs/yr) \* Emission Factor (lbs/1,000,000 lbs) / 2000 (lbs/ton)

# Attachment B - Emission Calculations Potential Collocated Emissions Summary

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

# North F Street Location (Source A)

				Combined
	PM* (tpy)	VOC (tpy)	CO (tpy)	HAPs (tpy)
Extrusion				2.00
Plant 1	4.11	7.24	0.38	
Plant 2	5.15	2.46	0.89	
Plant 3	5.93	2.81	2.89	
Plant 5	0.94	1.99	1.72	
Conveyance	1.02			
Wood Pallets Construction	0.15			
Plastic Scrap Cutting	0.15			

# Williamsburg Pike Location (Source B)

	PM* (tpy)	VOC (tpy)	CO (tpy)	Combined HAPs (tpy)
Conveyance	0.20			
Grinding	3.76	==		
Pallet Washing		0.04		0.00
Total	21.42	14.54	5.88	2.00

# Notes:

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

<sup>\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

Company Name: Primex Plastics Corporation Address City IN Zip: 1235 North F Street, Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)	VOC Emission Factor (lb/MMlb)	VOC Emissions (lb/hr)	VOC Emissions (tpy)	CO Emission Factor (lb/MMlb)	CO Emissions (lb/hr)	CO Emissions (tpy)
Extruder 1	PS	750	53.3	0.040	0.175	190	0.143	0.624	10	0.008	0.033
Extruder 2	PS	1300	53.3	0.069	0.303	190	0.247	1.082	10	0.013	0.057
Extruder 3	PS	750	53.3	0.040	0.175	190	0.143	0.624	10	0.008	0.033
Extruder 4	PS	750	53.3	0.040	0.175	190	0.143	0.624	10	0.008	0.033
Extruder 5	PS	1300	53.3	0.069	0.303	190	0.247	1.082	10	0.013	0.057
Extruder 6	PS	750	53.3	0.040	0.175	190	0.143	0.624	10	0.008	0.033
Extruder 7	PS	750	53.3	0.040	0.175	190	0.143	0.624	10	0.008	0.033
Extruder 9	PS	500	53.3	0.027	0.117	190	0.095	0.416	10	0.005	0.022
Extruder 10	PS	750	53.3	0.040	0.175	190	0.143	0.624	10	0.008	0.033
Extruder 11	PS	750	53.3	0.040	0.175	190	0.143	0.624	10	0.008	0.033
Pelletizer	Plastic Rework	350	53.3	0.019	0.082	190	0.067	0.291	10	0.004	0.015
				0.464	2.03		1.653	7.24	•	0.087	0.38

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)
Grinder 1	Plastic Rework	300	0.296	0.044	0.194
Grinder 2	Plastic Rework	300	0.296	0.044	0.194
Grinder 3	Plastic Rework	300	0.296	0.044	0.194
Grinder 4	Plastic Rework	300	0.296	0.044	0.194
Grinder 5	Plastic Rework	300	0.296	0.044	0.194
Grinder 6	Plastic Rework	300	0.296	0.044	0.194
Grinder 7	Plastic Rework	300	0.296	0.044	0.194
Grinder 8	Plastic Rework	300	0.296	0.044	0.194
Grinder 9	Plastic Rework	200	0.296	0.030	0.130
Grinder 10	Plastic Rework	300	0.296	0.044	0.194
Grinder 11	Plastic Rework	300	0.296	0.044	0.194
				0.474	2.07

	PM (lb/hr)	PM* (tpy)	VOC (lb/hr)	VOC (tpy)	CO (lb/hr)	CO (tpy)
TOTAL PLANT 1	0.937	4.105	1.653	7.240	0.087	0.381

Notes

Emission factors for PS are from "Sampling and Analysis of Fumes Evolved During thermal Processing of Polystyrene Resins", Dow Chemical, et al.

\* It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

PTE (tons/year) = Maximum Rate (lbs/hr) x Emission Factor (lbs/1,000,000 lbs) x 8760 (hours/year) x (1 ton/2000 lbs)

Company Name: Primex Plastics Corporation
Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)	VOC Emission Factor (lb/MMlb)	VOC Emissions (lb/hr)	VOC Emissions (tpy)	CO Emission Factor (lb/MMlb)	CO Emissions (lb/hr)	CO Emissions (tpy)
Extruder 1	ABS	800	30.3	0.02	0.11	190	0.15	0.67	0	0.00	0.00
Extruder 2	ABS	700	30.3	0.02	0.09	190	0.13	0.58	0	0.00	0.00
Extruder 3	ABS	800	30.3	0.02	0.11	190	0.15	0.67	0	0.00	0.00
Extruder 4	HDPE	850	26.6	0.02	0.10	30.7	0.03	0.11	50	0.04	0.19
Extruder 5	HDPE	850	26.6	0.02	0.10	30.7	0.03	0.11	50	0.04	0.19
Extruder 6	HDPE	1000	26.6	0.03	0.12	30.7	0.03	0.13	50	0.05	0.22
Extruder 7	HDPE	500	26.6	0.01	0.06	30.7	0.02	0.07	50	0.03	0.11
Extruder 8	HDPE	850	26.6	0.02	0.10	30.7	0.03	0.11	50	0.04	0.19
		6,350.00		0.18	0.78		0.56	2.46		0.20	0.89

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)
Grinder 1	HDPE	950	0.296	0.14	0.62
Grinder 2	HDPE	950	0.296	0.14	0.62
Grinder 3	HDPE	1500	0.296	0.22	0.97
Grinder 5	HDPE	950	0.296	0.14	0.62
Grinder 6	HDPE	950	0.296	0.14	0.62
Grinder 7	HDPE	500	0.296	0.07	0.32
Grinder 8	HDPE	950	0.296	0.14	0.62
				1.00	4.38

	PM (lb/hr)	PM* (tpy)	VOC (lb/hr)	VOC (tpy)	CO (lb/hr)	CO (tpy)
TOTAL PLANT 2	1.18	5.15	0.56	2.46	0.20	0.89

### Notes

Emission factors for ABS are from "Sampling and Analysis of VOCs Evolved During Thermal Processing of ABS Composite Resins", D.A. Contos, et al Emission factors for HDPE are from "Development of Emission Factors for Polyethylene Processing", Anthony Barlow, et al

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

PTE (tons/year) = Maximum Rate (lbs/hr) x Emission Factor (lbs/1,000,000 lbs) x 8760 (hours/year) x (1 ton/2000 lbs)

<sup>\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street, Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)	VOC Emission Factor (Ib/MMIb)	VOC Emissions (lb/hr)	VOC Emissions (tpy)	CO Emission Factor (lb/MMlb)	CO Emissions (lb/hr)	CO Emissions (tpy)
Extruder 1	PETG	600	30	0.02	0.08	35	0.02	0.09	50	0.03	0.13
Extruder 2	PETG	600	30	0.02	0.08	35	0.02	0.09	50	0.03	0.13
Extruder 3	HDPE / PP	900	30.3	0.03	0.12	104	0.09	0.41	90	0.08	0.35
Extruder 4	HDPE / PP	900	30.3	0.03	0.12	104	0.09	0.41	90	0.08	0.35
Extruder 5	HDPE / PP	850	30.3	0.03	0.11	104	0.09	0.39	90	0.08	0.34
Extruder 6	HDPE / PP	850	30.3	0.03	0.11	104	0.09	0.39	90	0.08	0.34
Extruder 7	HDPE / PP	850	30.3	0.03	0.11	104	0.09	0.39	90	0.08	0.34

37

0.15

0.64

0.65

2.81

52

0.21

0.66

0.91

2.89

0.53

1.27

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)
Grinder P1	Plastic Rework	400	0.296	0.06	0.26
Grinder P3	Plastic Rework	400	0.296	0.06	0.26
Grinder P4	Plastic Rework	400	0.296	0.06	0.26
Grinder P5	Plastic Rework	1600	0.296	0.24	1.04
Grinder P6	Plastic Rework	1600	0.296	0.24	1.04
Grinder P7	Plastic Rework	400	0.296	0.06	0.26
Grinder P10	Plastic Rework	1200	0.296	0.18	0.78
Grinder P11	Plastic Rework	1200	0.296	0.18	0.78
				1.07	4.67

4000

9,550.00

	PM (lb/hr)	PM* (tpy)	VOC (lb/hr)	VOC (tpy)	CO (lb/hr)	CO (tpy)
TOTAL PLANT 3	1.35	5.93	0.64	2.81	0.66	2.89

30.3

0.12

0.29

### Notes

Mega Extruder 8

Emission factors for PP are from "Development of Emission Factors for Polypropylene Processing", Ken Adams, et al.

Emission factors for PETG are from AP-42, Table 4.4-2.

HDPE

Emission factors for HDPE are from "Development of Emission Factors for Polyethylene Processing", Anthony Barlow, et al.

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

 $PTE (tons/year) = Maximum \ Rate (lbs/hr) \ x \ Emission \ Factor (lbs/1,000,000 \ lbs) \ x \ 8760 \ (hours/year) \ x \ (1 \ ton/2000 \ lbs)$ 

<sup>\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)	VOC Emission Factor (lb/MMlb)	VOC Emissions (lb/hr)	VOC Emissions (tpy)	CO Emission Factor (lb/MMlb)	CO Emissions (lb/hr)	CO Emissions (tpy)
Extruder 1	HDPE / PP	1000	30.3	0.03	0.13	104	0.10	0.46	90	0.09	0.39
Extruder 2	HDPE / PP	1000	30.3	0.03	0.13	104	0.10	0.46	90	0.09	0.39
Extruder 3	HDPE / PP	1000	30.3	0.03	0.13	104	0.10	0.46	90	0.09	0.39
Extruder 4	HDPE / PP	250	30.3	0.01	0.03	104	0.03	0.11	90	0.02	0.10
Extruder 5	HDPE / PP	250	30.3	0.01	0.03	104	0.03	0.11	90	0.02	0.10
Extruder 6	HDPE / PP	250	30.3	0.01	0.03	104	0.03	0.11	90	0.02	0.10
Extruder 7	HDPE / PP	250	30.3	0.01	0.03	104	0.03	0.11	90	0.02	0.10
Pelletizer	HDPE / PP	370	30.3	0.01	0.05	104	0.04	0.17	90	0.03	0.15
		4,370.00		0.13	0.58		0.45	1.99		0.39	1.72

Equipment	Resin	Max Throughput (lb/hr)	PM/PM10 Emission Factor (lb/MMlb)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)
Grinder 1	Plastic Rework	140	0.296	0.02	0.09
Grinder 2	Plastic Rework	140	0.296	0.02	0.09
Grinder 3	Plastic Rework	140	0.296	0.02	0.09
Grinder 4	Plastic Rework	140	0.296	0.02	0.09
				0.08	0.36

	PM (lb/hr)	PM* (tpy)	VOC (lb/hr)	VOC (tpy)	CO (lb/hr)	CO (tpy)
<b>TOTAL PLANT 5</b>	0.22	0.94	0.45	1.99	0.39	1.72

### Note

Emission factors for HDPE are from "Development of Emission Factors for Polyethylene Processing", Anthony Barlow, et al

Emission factors for PP are from "Development of Emission Factors for Polypropylene Processing", Ken Adams, et al.

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

PTE (tons/year) = Maximum Rate (lbs/hr) x Emission Factor (lbs/1,000,000 lbs) x 8760 (hours/year) x (1 ton/2000 lbs)

<sup>\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

# Attachment B - Emission Calculations Hazardous Air Pollutant (HAP) Emissions from Extrusion

Company Name: Primex Plastics Corporation Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

	Potential Material Usage								
Resin	Raw Material Usage (Ibs/hr)	Raw Material Usage (lbs/yr)	Colorant Usage (lbs/yr)	Additives Usage (lbs/yr)	Total Usage (lbs/yr)	Total Usage (tons/yr)			
ABS	2,300	20,148,000	880,488	347,181	22,016,940	11,008			
HDPE	14,800	129,648,000	3,264,939	347,181	137,257,924	68,629			
PETG	1,200	10,512,000	13,842	347,181	11,199,214	5,600			
PP	8,720	76,387,200	6,196,243	347,181	85,418,543	42,709			
PS	8,350	73,146,000	3,609,857	347,181	79,416,130	39,708			
Total	35,370	309,841,200	13,965,371	1,735,907	335,308,752	167,654			

# Methodology

- > Additives were assumed to be equally distributed between each resin
- > The potential pounds per year usage of colorant and additives was estimated from the actual usage using a simple ratio, as follows;

  Potential Colorant Usage (lb/yr) = (Actual Colorant Usage \* Potential Resin Usage) / Actual Resin Usage

  Potential Additive Usage (lb/yr) = [(Total Actual Colorant Usage \* Total Potential Resin Usage) / Total Actual Resin Usage) / 5]
- > Total Usage (lbs/yr) = (Raw Material (lbs/yr) + Colorant (lbs/yr) + Additives (lbs/yr)) \*1.03 3% of material is scrapped and recycled, this amount was added to "Purchases (lbs/yr)"

## **ABS Processing**

Purchases (lbs/yr)	22,016,940						
HAP	1,3-butadiene	Acrylonitrile	Ethyl benzene	Styrene	Cumene	Acetophenone	Total
Emission Factor	0.93	5.74	27.6	130	3.29	2.78	
Emissions (tons)	0.0102	0.0632	0.3038	1.4311	0.0362	0.0306	1.88

# HDPE Processing

Purchases (lbs/yr)	137,257,924				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.14	0.02	0.09	0.02	
Emissions (tons)	0.00961	0.00137	0.00618	0.00137	0.02

### PETG Processing

1 Li Ci i i oocoonig					
Purchases (lbs/yr)	11,199,214				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.14	0.02	0.09	0.02	
Emissions (tons)	0.00078	0.00011	0.00050	0.00011	0.002

# PP Processing

Purchases (lbs/yr)	85,418,543				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.74	0.01	0.46	0.05	
Emissions (tons)	0.03160	0.00043	0.01965	0.00214	0.05

# PS Processing

Purchases (lbs/yr)	79,416,130				
HAP	Formaldehyde	Acrolein	Acetaldehyde	Propionaldehyde	Total
Emission Factor	0.74	0.01	0.46	0.05	
Emissions (tons)	0.02938	0.00040	0.01827	0.00199	0.05

Total Combined HAPs	2.00	tons	

## Methodology

<sup>&</sup>gt; Potential HAP Emissions (tons/year) = Total Usage (lbs/yr) \* Emission Factor (lbs/1,000,000 lbs) / 2000 (lbs/ton)

# Attachment B - Emission Calculations Potential Emissions for Source A, Material Conveyance

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

Plant	Max Capacity (lbs/hr)	Process Weight Rate (tons/hr)	Emission Factor* (lb/ton)	Control Efficiency	PM/PM10 Emissions (lb/hr)	PM/PM10** Emissions (tpy)
1	8,700	4.35	0.80	98.00%	0.0696	0.3048
2	6,350	3.18	0.80	98.00%	0.0508	0.2225
3	9,550	4.78	0.80	98.00%	0.0764	0.3346
5	4,370	2.19	0.80	98.00%	0.0350	0.1531
Total					0.23	1.02

## Notes

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

Potential PM Emissions (lbs/hr) = Max Capacity (lbs/hr) /2000 (lbs/ton) \* Emission Factor (lb/ton) \* (1-Control Efficiency (%))

Potential PM Emissions (tons/yr) = Potential Emissions (lbs/hr) \* 8760 (hrs/yr) / 2000 (lbs/ton)

<sup>\*</sup> Emission Factor (lb/ton) taken from Permit # 177-12874-00065

<sup>\*\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used

# Attachment B - Emission Calculations Potential Emissions for Source A, Pallet Construction and Scrap Cutting Operations

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

# Potential

Equipment	Maximum Rate (lbs/hr)	Process Weight Rate (tons/hr)	Emission Factor (lbs/ton)	PM/PM10 Emissions (lb/hr)	PM/PM10* Emissions (tpy)
Wood Pallets Construction	200	0.10	0.35	0.04	0.15
Plastic Scrap Cutting	200	0.10	0.35	0.04	0.15
TOTAL				0.07	0.31

## Notes

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

Emission Factors for wood and plastic cutting are from FIRE Version 6.22 for log sawing (SCC# 3-07-008-02).

<sup>\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

# Attachment B - Emission Calculations Potential Emissions for the Source B, Warehouse Plastic Grinding Rework

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

Equipment	Maximum Rate (lbs/hr)	Process Weight Rate (tons/hr)	EF* (lbs/ton)	PM/PM10 Emissions (lb/hr)	PM/PM10** Emissions (tpy)
Grinder 1	1,500	0.75	0.296	0.222	0.972
Grinder 2	1,800	0.90	0.296	0.266	1.167
Grinder 3	2,500	1.25	0.296	0.370	1.621
Total				0.86	3.76

## Notes

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Therefore, PM = PM10 = PM2.5

Potential Emissions (tons/year) = Maximum Rate (lbs/hr) x (1 ton/2000 lbs) x Emission Factor (lbs/ton) x 8760 (hours/year) x (1 ton/2000 lbs)

<sup>\*</sup> Emission factors (EF) were developed by mass balance based on material processed and material collected.

<sup>\*\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.

# Attachment B - Emission Calculations Total Potential Emissions for Source B, Pallet Washing Station

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065
Reviewer: Hannah L. Desrosiers
Date: January 6, 2009

Cleaning Material	Max Usage (gal/yr)	Density (lb/gal)	VOC (wt %)	HAP (wt %)
WC-314 Cleaner	96	8.66	10.00%	0.00%

VOC (tons/yr)	HAP (tons/yr)
0.04	0.00

## Notes

The product contains sodium hydroxide and glycol ether [111-76-2], neither of which are considered a HAP.

VOC (tons/yr) = Max Usage (gal/yr) x Density (lb/gal) x VOC (wt %)

# Attachment B - Emission Calculations Potential Emissions for Source B, Material Conveyance

Company Name: Primex Plastics Corporation

Address City IN Zip: 1235 North F Street,

Richmond, Indiana 47374

Permit #: 177-12874-00065 Reviewer: Hannah L. Desrosiers Date: January 6, 2009

Plant	Max Capacity (lbs/hr)	Process Weight Rate (tons/hr)	Emission Factor* (lb/ton)	Control Efficiency	PM/PM10 Emissions (lb/hr)	PM/PM10** Emissions (tpy)
1	1,500	0.75	0.80	98.00%	0.0120	0.0526
2	1,800	0.90	0.80	98.00%	0.0144	0.0631
3	2,500	1.25	0.80	98.00%	0.0200	0.0876
Total					0.05	0.20

### Notes

Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.

Dry filters on the silos and blowers are considered integral to the process. Therefore, PTE of PM/PM10 for storage and handling is after control.

Therefore, PM = PM10 = PM2.5

Potential Emissions (lbs/hr) = Max Capacity (lbs/hr) /2000 (lbs/ton) \* Emission Factor (lb/ton) \* (1-Control Efficiency (%))

Potential Emissions (tons/yr) = Potential Emissions (lbs/hr) \* 8760 (hrs/yr) / 2000 (lbs/ton)

<sup>\*</sup> Emission Factor (lb/ton) taken from Permit # 177-12874-00065.

<sup>\*\*</sup> It is assumed that PM10 Emissions equal PM Emissions, and/or, in the absence of valid PM10 Emission Factors, PM Emission Factors have been used.