



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: October 17, 2006  
RE: North American Bristol Corporation / 039-20061-00064  
FROM: Nisha Sizemore  
Chief, Permits Branch  
Office of Air Quality

### Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER.dot 03/23/06



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

## MINOR SOURCE OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**North American Bristol Corporation  
503 East Vistula Street  
Bristol, Indiana 46507**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages. This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated there under, as well as other applicable local, state, and federal requirements.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.:M039-20061-00064	
Issued by: Original signed by  Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: October 17, 2006  Expiration Date: October 17, 2011

## TABLE OF CONTENTS

<b>A</b>	<b>SOURCE SUMMARY</b> .....	4
A.1	General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]	
A.2	Emission Units and Pollution Control Equipment Summary	
<b>B</b>	<b>GENERAL CONDITIONS</b> .....	7
B.1	Definitions [326 IAC 2-1.1-1]	
B.2	Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5] [IC13-15-3-6(a)]	
B.3	Term of Conditions [326 IAC 2-1.1-9.5]	
B.4	Enforceability	
B.5	Severability	
B.6	Property Right or Exclusive Privilege	
B.7	Duty to Provide Information	
B.8	Certification	
B.9	Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.10	Preventive Maintenance Plan [326 IAC 1-6-3]	
B.11	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.12	Termination of Right to Operate [326 IAC 2-6.1-7(a)]	
B.13	Deviations from Permit Requirements and Conditions	
B.14	Permit Renewal [326 IAC 2-6.1-7]	
B.15	Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]	
B.16	Source Modification Requirement	
B.17	Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2] [IC 13-17-3-2][IC 13-30-3-1]	
B.18	Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]	
B.19	Annual Fee Payment [326 IAC 2-1.1-7]	
B.20	Credible Evidence [326 IAC 1-1-6]	
<b>C</b>	<b>SOURCE OPERATION CONDITIONS</b> .....	12
C.1	Particulate Emission Limitation For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2	Permit Revocation [326 IAC 2-1.1-9]	
C.3	Opacity [326 IAC 5-1]	
C.4	Fugitive Dust Emissions [326 IAC 6-4]	
C.5	Asbestos Abatement Projects [326 IAC 14-10][326 IAC 18][40 CFR 61, Subpart M]	
C.6	Performance Testing [326 IAC 3-6]	
C.7	Compliance Requirements [326 IAC 2-1.1-11]	
C.8	Compliance Monitoring [326 IAC 2-1.1-11]	
C.9	Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]	
C.10	Instrument Specifications [326 IAC 2-1.1-11]	
C.11	Response to Excursions or Exceedances	
C.12	Actions Related to Noncompliance Demonstrated by a Stack Test	
	<b>Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]</b>	
C.13	Malfunctions Report [326 IAC 1-6-2]	
C.14	General Record Keeping Requirements [326 IAC 2-6.1-5]	
C.15	General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-5] [IC 13-14-1-13]	
<b>D.1</b>	<b>EMISSIONS UNIT OPERATION CONDITIONS</b> .....	18
	<b>Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]</b>	
D.1.1	Particulate [326 IAC 6-3-2]	
D.1.2	Preventive Maintenance Plan [326 IAC 1-6-3]	

**TABLE OF CONTENTS (continued)**

**Compliance Determination Requirements**

D.1.3 Particulate Control

D.1.4 Testing Requirements [326 IAC 2-6.1-5(a)(2)] [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)][326 IAC 2-6.1-5(a)(2)]**

D.1.5 Visible Emissions Notations

D.1.6 Broken or Failed Bag Detection

D.1.7 Cyclone Failure Detection

**Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

D.1.8 Record Keeping Requirements

**D.2 EMISSIONS UNIT OPERATION CONDITIONS ..... 23**

**Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]**

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Annual Notification ..... 25

Malfunction Report ..... 26

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary PVC and ABS plastic pipe manufacturing plant.

Authorized Individual:	Plant Manager
Source Address:	503 East Vistula Street, Bristol, Indiana 46507
Mailing Address:	P.O. Box 609, Bristol, Indiana 46507
General Source Phone Number:	(574) 848-4402
SIC Code:	3084
County Location:	Elkhart
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD and Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emission units and pollution control devices:

- (a) One (1) railcar unloading operation, identified as RRUNLOAD, with a maximum capacity of 12,500 lbs of resin per hour, with particulate emissions controlled by a dust collector (RRDC), and exhausting through stack RRDC.
- (b) One (1) PVC resin blender, identified as BL1, with a maximum blending capacity of 10,000 pounds of resin per hour, with particulate emissions controlled by a dust collector (DCBL1), and exhausting to stack DCBL1.
- (c) Ten (10) extruder lines, using PVC resin, PVC compound, ABS pellets, and/or re-ground waste material as feedstock, with particulate emissions controlled by dust collectors, with no VOC emission controls, and exhausting inside the building, as follows:

Emission Unit ID	Maximum Throughput Rate (lbs/hour)	Control Unit ID
Extruder Line E1	1,000	DCE1
Extruder Line E2	800	DCE2
Extruder Line E3	1,100	DCE3
Extruder Line E4	250	DCE4
Extruder Line E5	2,400	DCE5
Extruder Line E6	1,300	DCE6
Extruder Line E7	1,200	DCE7
Extruder Line E8	1,000	DCE8
Extruder Line E9	900	DCE9
Extruder Line E10	1,200	DCE10

- (d) One (1) regrinder/pulverizer, identified as R1, with a maximum regrinding capacity of 500

pounds of waste per hour, with re-ground material pneumatically conveyed to Silo 13, with particulate emissions controlled by a bin vent dust collector (DCS13), and exhausting to stacks R01 and DCS13.

- (e) Two (2) ABS dryers, identified as ABSDRY1 and ABSDRY2, each with a maximum drying capacity of 1,280 pounds of ABS resin per hour, with particulate emissions controlled by dust collectors (DCDRY1 and DCDRY2), and exhausting to stacks DCDRY1 and DCDRY2, respectively.
- (f) Fifteen (15) silos for storing PVC compound, PVC resin, ABS pellets, re-ground plastic material, and limestone, using bin vent dust collectors to control particulate emissions, and exhausting to the atmosphere, as follows:

Emission Unit ID	Material Stored	Maximum Throughput (lbs/hour)	Maximum Storage Capacity (lbs)	Control Unit/Stack ID
Silo S1	PVC Compound	3652	122,600	DCS1
Silo S2	ABS Pellets	1800	122,600	DCS3
Silo S3	ABS Pellets	1800	122,600	
Silo S4	PVC Compound	3652	122,600	DCS5
Silo S5	PVC Compound	3652	122,600	
Silo S6	Limestone	1000	151,200	DCS6
Silo S7	PVC Compound	3652	122,600	DCS8
Silo S8	PVC Compound	3652	122,600	
Silo S9	PVC Compound	3652	122,600	DCS9
Silo S10	PVC Resin	8330	122,600	DCS11
Silo S11	PVC Resin	8330	211,000	
Silo S12	PVC Compound	3,652	122,600	DCS12
Silo S13	Re-ground Material	913	122,600	DCS13
Silo S14	Re-ground Material	913	122,600	DCS14
Silo S15	Re-ground Material	913	151,200	DCS15

- (g) Ten (10) printers, identified as P1 constructed in 1985, with a maximum printing capacity of 9,580 pounds of PVC/ABS plastic tubes per hour, using no controls and venting inside the building.
- (h) Propane or liquified petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
- (i) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
  - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, or machining fluids.
- (j) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (k) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, and not subject to 326 IAC 20-6.
- (l) Cleaners and solvents characterized as:
  - (1) Having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at

- (2) thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or  
Having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit);

The use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months.

- (m) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, including:
- (n) Closed loop heating and cooling systems.
- (o) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs.
- (p) Replacement or repair of bags in baghouses, and filters in other air filtration equipment.
- (q) Paved and unpaved roads and parking lots with public access.
- (r) Conveyors, consisting of enclosed systems for conveying plastic raw material and plastic finished goods.
- (s) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and/or fluid handling equipment.
- (t) On-site fire training approved by the department.
- (u) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and/or woodworking operations.

## **SECTION B GENERAL CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **B.1 Definitions [326 IAC 2-1.1-1]**

---

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

### **B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5] [IC13-15-3-6(a)]**

---

- (a) This permit, 039-20061-00064, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

### **B.3 Term of Conditions [326 IAC 2-1.1-9.5]**

---

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### **B.4 Enforceability**

---

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### **B.5 Severability**

---

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.6 Property Rights or Exclusive Privilege**

---

This permit does not convey any property rights of any sort or any exclusive privilege.

### **B.7 Duty to Provide Information**

---

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1. Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

## B.8 Certification

---

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

## B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

---

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:  
  
Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

## B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

---

- (a) The Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

---

- (a) All terms and conditions of permits established prior to and issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

---

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.13 Deviations from Permit Requirements and Conditions**

---

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.14 Permit Renewal [326 IAC 2-6.1-7]**

---

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit;  
and

- (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ,, any additional information identified as being needed to process the application.

**B.15 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]**

---

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
  
Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 2-6.1-6(d)]

**B.16 Source Modification Requirement**

---

A modification, construction, or reconstruction is governed by 326 IAC 2.

**B.17 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)] [IC 13-14-2-2] [IC13-17-3-2][IC 13-30-3-1]**

---

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample

or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.18 Transfer of Ownership or Operation [326 IAC 2-6.1-6]**

---

- (a) The Permittee must comply with the requirements of 326 IAC 2-6-1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

**B.19 Annual Fee Payment [326 IAC 2-1.1-7]**

---

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

**B.20 Credible Evidence [326 IAC 1-1-6]**

---

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

#### C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

#### C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

#### C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

#### C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of

326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

## Testing Requirements

### C.6 Performance Testing [326 IAC 3-6]

---

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

## Compliance Requirements [326 IAC 2-1.1-11]

### C.7 Compliance Requirements [326 IAC 2-1.1-11]

---

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

## Compliance Monitoring Requirements

### C.8 Compliance Monitoring [326 IAC 2-1.1-11]

---

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

### C.9 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

---

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

### C.10 Instrument Specifications [326 IAC 2-1.1-11]

---

- (a) When required by any condition of this permit, an analog instrument used to measure a

parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

#### C.11 Response to Excursions or Exceedances

---

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records;
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

#### C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

---

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of

the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected emissions unit while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that re-testing in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the re-testing deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to non-compliant stack tests.

The response action documents submitted pursuant to this condition do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### **Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

#### **C.13 Malfunctions Report [326 IAC 1-6-2]**

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

#### **C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]**

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-5] [IC 13-14-1-13]

---

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description [326 IAC 2-6.1-5(a)(1)]:**

(a) One (1) railcar unloading operation, identified as RRUNLOAD, with a maximum capacity of 12,500 lbs of resin per hour, with particulate emissions controlled by a dust collector (RRDC), and exhausting through stack RRDC.

(b) One (1) PVC resin blender, identified as BL1, with a maximum blending capacity of 10,000 pounds of resin per hour, with particulate emissions controlled by a dust collector (DCBL1), and exhausting to stack DCBL1.

(c) Ten (10) extruder lines, using PVC resin, PVC compound, ABS pellets, and/or re-ground waste material as feedstock, with particulate emissions controlled by dust collectors, with no VOC emission controls, and exhausting inside the building, as follows:

Emission Unit ID	Maximum Throughput Rate (lbs/hour)	Control Unit ID
Extruder Line E1	1,000	DCE1
Extruder Line E2	800	DCE2
Extruder Line E3	1,100	DCE3
Extruder Line E4	250	DCE4
Extruder Line E5	2,400	DCE5
Extruder Line E6	1,300	DCE6
Extruder Line E7	1,200	DCE7
Extruder Line E8	1,000	DCE8
Extruder Line E9	900	DCE9
Extruder Line E10	1,200	DCE10

(d) One (1) regrinder/pulverizer, identified as R1, with a maximum regrinding capacity of 500 pounds of waste per hour, with re-ground material pneumatically conveyed to Silo 13, with particulate emissions controlled by a bin vent dust collector (DCS13), and exhausting to stacks R01 and DCS13.

(e) Two (2) ABS dryers, identified as ABSDRY1 and ABSDRY2, each with a maximum drying capacity of 1,280 pounds of ABS resin per hour, with particulate emissions controlled by dust collectors (DCDRY1 and DCDRY2), and exhausting to stacks DCDRY1 and DCDRY2, respectively.

(f) Fifteen (15) silos for storing PVC compound, PVC resin, ABS pellets, re-ground plastic material, and limestone, using bin vent dust collectors to control particulate emissions, and exhausting to the atmosphere, as follows:

Emission Unit ID	Material Stored	Maximum Throughput (lbs/hour)	Maximum Storage Capacity (lbs)	Control Unit/Stack ID
Silo S1	PVC Compound	3652	122,600	DCS1
Silo S2	ABS Pellets	1800	122,600	DCS3
Silo S3	ABS Pellets	1800	122,600	
Silo S4	PVC Compound	3652	122,600	DCS5
Silo S5	PVC Compound	3652	122,600	
Silo S6	Limestone	1000	151,200	DCS6
Silo S7	PVC Compound	3652	122,600	DCS8
Silo S8	PVC Compound	3652	122,600	
Silo S9	PVC Compound	3652	122,600	DCS9
Silo S10	PVC Resin	8330	122,600	DCS11
Silo S11	PVC Resin	8330	211,000	

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS**

<b>Emissions Unit Description [326 IAC 2-6.1-5(a)(1)]:</b>				
Silo S12	PVC Compound	3652	122,600	DCS12
Silo S13	Re-ground Material	913	122,600	DCS13
Silo S14	Re-ground Material	913	122,600	DCS14
Silo S15	Re-ground Material	913	151,200	DCS15
<p>(g) Ten (10) printers, identified as P1, with a maximum printing capacity of 9,580 pounds of PVC/ABS plastic tubes per hour, using no controls and venting inside the building.</p> <p>(u) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and/or woodworking operations.</p> <p>(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)</p>				

**Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]**

**D.1.1 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the manufacturing facilities shall not exceed the pound per hour limits shown in the following table.

<b>Emission Unit ID</b>	<b>Maximum Throughput (lbs/hour)</b>	<b>Allowable Emissions (lbs/hour)</b>	<b>Control Unit ID</b>
Unloading (RRUNLOAD)	12,500	14.0	RRDC
PVC resin blender (BL1)	10,000	12.1	DCBL1
Extruder Line E1	1,000	2.58	DCE1
Extruder Line E2	800	2.22	DCE2
Extruder Line E3	1,100	2.75	DCE3
Extruder Line E4	250	1.02	DCE4
Extruder Line E5	2,400	4.63	DCE5
Extruder Line E6	1,300	3.07	DCE6
Extruder Line E7	1,200	2.91	DCE7
Extruder Line E8	1,000	2.58	DCE8
Extruder Line E9	900	2.40	DCE9
Extruder Line E10	1,200	2.91	DCE10
Regrinder/Pulverizer (R1)	500	1.62	DCS13
ABSDRYER1	1,280	3.04	DCCRY1
ABSDRYER2	1,280	3.04	DCCRY2
Silo S1	3652	6.14	DCS1
Silo S2	1800	3.82	DCS3
Silo S3	1800	3.82	
Silo S4	3652	6.14	DCS5
Silo S5	3652	6.14	
Silo S6	1000	2.58	DCS6
Silo S7	3652	6.14	DCS8
Silo S8	3652	6.14	
Silo S9	3652	6.14	DCS9
Silo S10	8330	10.7	DCS11
Silo S11	8330	10.7	
Silo S12	3652	6.14	DCS12
Silo S13	913	2.42	DCS13
Silo S14	913	2.42	DCS14
Silo S15	913	2.42	DCS15

Grinding & Machining	1,000	2.58	Fabric Filter
----------------------	-------	------	---------------

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour;  
and P = process weight rate in tons per hour

#### D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the railcar unloading operation (RRUNLOAD) and the PVC resin blender (BL1) and their control devices (RRDC and DCBL1, respectively).

### Compliance Determination Requirements

#### D.1.3 Particulate Control

- (a) Pursuant to 326 IAC 6-3-2, and in order to comply with Condition D.1.1, the dust collectors for particulate control shall be in operation and control emissions from the Railcar Unloading (RRUNLOAD), PVC resin blender (BL1), Extruder Line E1, Extruder Line E2, Extruder Line E3, Extruder Line E4, Extruder Line E5, Extruder Line E6, Extruder Line E7, Extruder Line E8, Extruder Line E9, Extruder Line E10, Regrinder/Pulverizer (R1), ABSDRYER1, ABSDRYER2, Silo S1, Silo S2, Silo S3, Silo S4, Silo S5, Silo S6, Silo S7, Silo S8, Silo S9, Silo S10, Silo S11, Silo S12, Silo S13, Silo S14, Silo S15, and the Grinding & Machining at all times that these facilities are in operation.
- (b) In the event that bag failure is observed in a multi-compartment dust collector, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.1.4 Testing Requirements [326 IAC 2-6.1-5(a)(2)] [326 IAC 2-1.1-11]

The Permittee shall perform testing within 180 days after issuance of this MSOP, in order to demonstrate compliance with 326 IAC 2-6.1. The Permittee shall perform a test to verify the VOC emission factor on one (1) of the extruder lines, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C- Performance Testing.

### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)][326 IAC 2-6.1-5(a)(2)]

#### D.1.5 Visible Emissions Notations

- (a) Daily visible emission notations of the railcar unloading operation (RRUNLOAD) and the PVC resin blender (BL1) stack exhausts (RRDC and DCBL1) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month

and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### D.1.6 Broken or Failed Bag Detection

---

- (a) For a single compartment dust collector controlling emissions from a process operated continuously, failed units and the associated process shall be shut down immediately until the failed unit have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment dust collector controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### D.1.7 Cyclone Failure Detection

---

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

### **Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]**

#### D.1.8 Record Keeping Requirements

---

- (a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the railcar unloading operation (RRUNLOAD) and the PVC resin blender (BL1) stack exhausts.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.2

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description [326 IAC 2-6.1-5(a)(1)]:

- (k) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6.
- (l) Cleaners and solvents characterized as:
  - (1) Having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or
  - (2) Having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit);

The use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

#### D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs existing as of July 1, 1990, located in Clark, Elkhart, Floyd, Lake, Marion, Porter or St. Joseph Counties, the Permittee shall ensure that the following requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch)

measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));

- (B) The solvent is agitated; or
  - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH**

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	North American Bristol Corporation
<b>Address:</b>	503 East Vistula Street
<b>City:</b>	Bristol, Indiana 46507
<b>Phone #:</b>	(574) 848-4402
<b>MSOP #:</b>	039-20061-00064

I hereby certify that North American Bristol Corporation is  still in operation.  
 no longer in operation.

I hereby certify that North American Bristol Corporation is  in compliance with the requirements of MSOP 039-20061-00064.  
 not in compliance with the requirements of MSOP 039-20061-00064.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

<b>Noncompliance:</b>

**MALFUNCTION REPORT**

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
FAX NUMBER - 317 233-6865**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6  
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_\_, 100TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ PHONE NO. (    ) \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_        \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_        \_\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

\***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

---

---

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

### Source Background and Description

Source Name: North American Bristol Corporation  
Source Location: 503 East Vistula Street, Bristol, Indiana 46507  
County: Elkhart  
SIC Code: 3084  
Operation Permit No.: M039-11656-00064  
Operation Permit Issuance Date: March 21, 2000  
Permit Renewal No.: M039-20061-00064  
Permit Reviewer: ERG/ST

The Office of Air Quality (OAQ) has reviewed a renewal application from North American Bristol Corporation relating to the operation of a PVC and ABS plastic pipe manufacturing plant.

### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) railcar unloading operation, identified as RRUNLOAD, with a maximum capacity of 12,500 lbs of resin per hour, with particulate emissions controlled by a dust collector (RRDC), and exhausting through stack RRDC.
- (b) One (1) PVC resin blender, identified as BL1, with a maximum blending capacity of 10,000 pounds of resin per hour, with particulate emissions controlled by a dust collector (DCBL1), and exhausting to stack DCBL1.
- (c) Ten (10) extruder lines, using PVC resin, PVC compound, ABS pellets, and/or re-ground waste material as feedstock, with particulate emissions controlled by dust collectors, with no VOC emission controls, and exhausting inside the building, as follows:

Emission Unit ID	Maximum Throughput Rate (lbs/hour)	Control Unit ID
Extruder Line E1	1,000	DCE1
Extruder Line E2	800	DCE2
Extruder Line E3	1,100	DCE3
Extruder Line E4	250	DCE4
Extruder Line E5	2,400	DCE5
Extruder Line E6	1,300	DCE6
Extruder Line E7	1,200	DCE7
Extruder Line E8	1,000	DCE8
Extruder Line E9	900	DCE9
Extruder Line E10	1,200	DCE10

- (d) One (1) regrinder/pulverizer, identified as R1, with a maximum regrinding capacity of 500 pounds of waste per hour, with re-ground material pneumatically conveyed to Silo 13,

with particulate emissions controlled by a bin vent dust collector (DCS13), and exhausting to stacks R01 and DCS13.

- (e) Two (2) ABS dryers, identified as ABSDRY1 and ABSDRY2, each with a maximum drying capacity of 1,280 pounds of ABS resin per hour, with particulate emissions controlled by dust collectors (DCDRY1 and DCDRY2), and exhausting to stacks DCDRY1 and DCDRY2, respectively.
- (f) Fifteen (15) silos for storing PVC compound, PVC resin, ABS pellets, re-ground plastic material, and limestone, using bin vent dust collectors to control particulate emissions, and exhausting to the atmosphere, as follows:

Emission Unit ID	Material Stored	Maximum Throughput (lbs/hour)	Maximum Storage Capacity (lbs)	Control Unit/Stack ID
Silo S1	PVC Compound	3652	122,600	DCS1
Silo S2	ABS Pellets	1800	122,600	DCS3
Silo S3	ABS Pellets	1800	122,600	
Silo S4	PVC Compound	3652	122,600	DCS5
Silo S5	PVC Compound	3652	122,600	
Silo S6	Limestone	1000	151,200	DCS6
Silo S7	PVC Compound	3652	122,600	DCS8
Silo S8	PVC Compound	3652	122,600	
Silo S9	PVC Compound	3652	122,600	DCS9
Silo S10	PVC Resin	8330	122,600	DCS11
Silo S11	PVC Resin	8330	211,000	
Silo S12	PVC Compound	3,652	122,600	DCS12
Silo S13	Re-ground Material	913	122,600	DCS13
Silo S14	Re-ground Material	913	122,600	DCS14
Silo S15	Re-ground Material	913	151,200	DCS15

- (g) Ten (10) printers, identified as P1 with a maximum printing capacity of 9,580 pounds of PVC/ABS plastic tubes per hour, using no controls and venting inside the building.
- (h) Propane or liquified petroleum gas or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
- (i) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs equal to or less than twelve thousand (12,000) gallons.
  - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, or machining fluids.
- (j) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (k) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, and not subject to 326 IAC 20-6.
- (l) Cleaners and solvents characterized as:
  - (1) Having a vapor pressure equal to or less than two (2.0) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pound per square inch) measured at thirty-eight (38) degrees Centigrade (one hundred (100) degrees Fahrenheit); or

- (2) Having a vapor pressure equal to or less than seven-tenths (0.7) kilo Pascal (five (5) millimeters of mercury or one-tenth (0.1) pound per square inch) measured at twenty (20) degrees Centigrade (sixty-eight (68) degrees Fahrenheit);

The use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months.

- (m) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment, including:
- (n) Closed loop heating and cooling systems.
- (o) Any operation using aqueous solutions containing less than or equal to one percent (1%) by weight of VOCs excluding HAPs.
- (p) Replacement or repair of bags in baghouses, and filters in other air filtration equipment.
- (q) Paved and unpaved roads and parking lots with public access.
- (r) Conveyors, consisting of enclosed systems for conveying plastic raw material and plastic finished goods.
- (s) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and/or fluid handling equipment.
- (t) On-site fire training approved by the department.
- (u) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to three one-hundredths (0.03) grains per actual cubic foot and a gas flow rate less than or equal to four thousand (4,000) actual cubic feet per minute, including deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and/or woodworking operations.

### **Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted emission units operating at this source during this review process.

### **Existing Approvals**

The source has been operating under MSOP 039-11656-00064, issued on March 21, 2000 and the following:

Notice-Only Change 039-19818-00064, issued on September 10, 2004.

All conditions from previous approvals were incorporated into this permit.

## **Air Pollution Control Justification as an Integral Part of the Process**

While under review for an MSOP renewal, the company has submitted the following justification such that the bin vent dust collectors controlling particulate emissions from Silos 1 through 15 (DCS1, DCS3, DCS5, DCS6, DCS8, DCS9, DCS11, DCS12, DCS13, DCS14, and DCS15) and the dust collectors controlling emissions from the PVC Resin Blender and the ABS Dryers (DCBL1, DCDRY1, and DCDRY2) be considered as an integral part of the manufacture of plastic pipe:

During unloading, the raw materials for this plastic pipe manufacturing process (PVC compound, PVC resin, ABS pellets and limestone) are pneumatically conveyed to the silos. The bin vent dust collectors on Silos 1 through 15 separate product from air when the product has reached its destination.

The PVC Blender mixes PVC compound, PVC resin and limestone. These materials are pneumatically conveyed from the silos to the PVC Blender, and then the mixture is then pneumatically conveyed to the extruder or back to a silo. The primary function of the dust collector controlling the PVC blender (DCBL1) is product transport and product capture. DCBL1 separates product from air when the product has reached its destination.

The ABS pellets are pneumatically conveyed from the silos to the extruder. The primary function of the dust collector controlling the ABS Dryers (DCDRY1 AND DCDRY2) is product transport and product capture. These dust collectors separate product from air when the product has reached its destination.

The bin vent dust collectors and the dust collectors serve to neutralize air pressure at the end of the transport train and separate raw materials from air prior to storage or further processing. The value of the product recovered by the bin vent dust collectors and the dust collectors exceeds the total capital and operating costs of these devices.

IDEM, OAQ has evaluated the justifications and agrees that the bin vent dust collectors controlling particulate emissions from Silos 1 through 15 (DCS1, DCS3, DCS5, DCS6, DCS8, DCS9, DCS11, DCS12, DCS13, DCS14, and DCS15) and the dust collectors controlling emissions from the PVC Resin Blender and the ABS Dryers (DCBL1, DCDRY1, and DCDRY2) will be considered as an integral part of the plastics manufacturing process. Therefore, the permitting level will be determined using the potential to emit after the bin vent dust collectors and the dust collectors. Operating conditions in the proposed permit will specify that the bin vent dust collectors and the dust collectors shall operate at all times when the plastic pipe manufacturing process is in operation. The determination that the bin vent dust collectors and the dust collectors are integral to the process was made during the MSOP review process.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the permit renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on December 21, 2004.

## Emission Calculations

See Appendix A of this document for detailed emission calculations (Appendix A, pages 1 through 5).

## Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	46.5
PM10	46.5
SO <sub>2</sub>	0.0
VOC	3.05
CO	0.55
NO <sub>x</sub>	4.0

HAPs	Potential to Emit (tons/yr)
Vinyl Chloride	0.24
Styrene	0.05
Isophorene	0.04
Total	0.33

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM10 are less than 100 tons per year, but greater than 25 tons per year. The PTE of all other criteria pollutants is less than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (c) Fugitive Emissions  
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

## County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM10	Attainment
PM2.5	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

- (a) Elkhart County has been classified as attainment for PM<sub>2.5</sub>. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM<sub>2.5</sub> emissions, it has directed states to regulate PM<sub>10</sub> emissions as surrogate for PM<sub>2.5</sub> emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements of 326 IAC 2-3 (Emission Offset). See the State Rule Applicability – Entire Source section.
- (c) Elkhart County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.
- (d) On August 7, 2006, a temporary emergency rule took effect revoking the one-hour ozone standard in Indiana. The Indiana Air Pollution Control Board has approved a permanent rule revision to incorporate this change into 326 IAC 1-4-1. A permanent revision to 326 IAC 1-4-1 will take effect prior to the expiration of the emergency rule.

### Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	4.84
PM <sub>10</sub>	4.84
SO <sub>2</sub>	0.0
VOC	3.05
CO	0.55
NO <sub>x</sub>	4.0
Single HAP	0.24
Combination HAPs	0.33

- (a) This existing source is not a major stationary source under 326 IAC 2-2 (PSD) because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater, and it is not in one of the 28 listed source categories.
- (b) This existing source is not a major stationary source under 326 IAC 2-3 (Emission Offset) because VOC and NO<sub>x</sub> emissions are less than 100 tons per year.
- (c) These emissions were based on the application submitted by the company.

### Part 70 Permit Determination

#### 326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 039-20061-00064, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,

- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This status is based on all the air approvals issued to the source.

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.
- (c) The requirements of 326 IAC 20 and 40 CFR Part 63, Subpart T (National Emission Standards for Hazardous Air Pollutants: Halogenated Solvent Cleaning) are not included in the permit. The insignificant degreasing operations do not use a solvent containing methylene chloride, perchlorethylene, trichlorethylene, 1,1,1-trichlorethane, carbon tetrachloride, chloroform or any combination of these halogenated HAP solvents in a total concentration greater than five percent (5%) by weight as a cleaning or drying agent.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR 63.4480, Subpart PPPP) are not included in this permit for this source. This source is a minor source of HAP, as defined in 40 CFR 63.2.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Paper and Other Web Coating (40 CFR 63.3280, Subpart JJJJ) are not included in this permit for this source. This source is a minor source of HAP, as defined in 40 CFR 63.2.

### **State Rule Applicability – Entire Source**

#### **326 IAC 2-2 (Prevention of Significant Deterioration)**

This source is not in 1 of the 28 source categories and there are no applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, fugitive emissions of VOC and PM are not counted towards applicability of PSD.

This source was constructed in 1985. At the time of construction, the PTE for PM, PM10, VOC, CO, NO<sub>x</sub>, and SO<sub>2</sub> was less than 250 tons per year. The source was a minor source under PSD. There have been no major modifications since the source was constructed.

The PTE for PM, PM10, VOC, CO, NO<sub>x</sub>, and SO<sub>2</sub> for the entire source remains less than 250 tons per year. The source is a minor source under PSD.

#### **326 IAC 2-3 (Emission Offset)**

This source is located in Elkhart County. Elkhart County was designated as a nonattainment area for the 8-hour ozone standard on June 15, 2004. The potential to emit of VOC and NO<sub>x</sub> of this source is less than 100 tons per year. Therefore, this source is a minor source under Emission Offset.

#### **326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**

The operation of the PVC blender, the extruders, the ABS dryers, and the flexographic printing emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

#### **326 IAC 2-6 (Emission Reporting)**

This source is located in Elkhart County, is not required to operate under a Part 70 permit, and does not emit lead into the ambient air at levels greater than or equal to five (5) tons per year. Therefore, 326 IAC 2-6 does not apply.

**326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**State Rule Applicability – Individual Facilities**

**326 IAC 6-3-2 ( Particulate Emission Limitations for Manufacturing Processes)**

- (a) Pursuant to 326 IAC 6-3-2, the particulate emissions from the manufacturing facilities shall be limited as listed in the following table:

Emission Unit ID	Maximum Throughput (lbs/hour)	Allowable Emissions (lbs/hour)	Control Unit ID
Unloading (RRUNLOAD)	12,500	14.0	RRDC
PVC resin blender (BL1)	10,000	12.1	DCBL1
Extruder Line E1	1,000	2.58	DCE1
Extruder Line E2	800	2.22	DCE2
Extruder Line E3	1,100	2.75	DCE3
Extruder Line E4	250	1.02	DCE4
Extruder Line E5	2,400	4.63	DCE5
Extruder Line E6	1,300	3.07	DCE6
Extruder Line E7	1,200	2.91	DCE7
Extruder Line E8	1,000	2.58	DCE8
Extruder Line E9	900	2.40	DCE9
Extruder Line E10	1,200	2.91	DCE10
Regrinder/Pulverizer (R1)	500	1.62	DCS13
ABSDRYER1	1,280	3.04	DCDRY1
ABSDRYER2	1,280	3.04	DCDRY2
Silo S1	3652	6.14	DCS1
Silo S2	1800	3.82	DCS3
Silo S3	1800	3.82	DCS5
Silo S4	3652	6.14	DCS5
Silo S5	3652	6.14	DCS5
Silo S6	1000	2.58	DCS6
Silo S7	3652	6.14	DCS8
Silo S8	3652	6.14	DCS8
Silo S9	3652	6.14	DCS9
Silo S10	8330	10.7	DCS11
Silo S11	8330	10.7	DCS11
Silo S12	3652	6.14	DCS12
Silo S13	913	2.42	DCS13
Silo S14	913	2.42	DCS14
Silo S15	913	2.42	DCS15
Grinding & Machining	1,000	2.58	Fabric Filter

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and}$$

P = process weight rate in tons per hour

- (b) The printing operations (P1) do not emit particulate matter. Therefore, the requirements of 326 IAC 6-3-2 do not apply to this facility.

The dust collectors for the Unloading (RRUNLOAD), PVC resin blender (BL1), ABSDRYER1, ABSDRYER2, and Silos 1 through 15 shall be in operation at all times that these facilities are in operation, in order to comply with this limit.

Based on the calculations in Appendix A (pages 2, 3, and 4), the extruder lines (E1 through E10) and the grinding and machining operation are in compliance with the limits in 326 IAC 6-3-2 before the effect of the control devices.

#### 326 IAC 8-1-6 (Volatile Organic Compounds)

The potential to emit of VOC from the PVC resin blender (BL1), the extruder lines (E1 through E10), and the printers (P1) is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

#### 326 IAC 8-3-2 (Cold Cleaner Operations)

This cold cleaner degreasing facility is located in Elkhart County, was constructed after January 1, 1980 and is used to perform organic solvent degreasing operations. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee of a cold cleaning facility shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

This cold cleaner degreasing facility is located in Elkhart County, was existing as of January 1, 1990, is used to perform organic solvent degreasing operations and does not have a remote solvent reservoir. Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (1) The solvent volatility is greater than two (2) kilo Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
  - (2) The solvent is agitated; or
  - (3) The solvent is heated.
- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (thirty-two (32) millimeters of mercury

or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kilo Pascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
  - (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (2) A water cover when solvent used is insoluble in, and heavier than, water.
  - (3) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee of a cold cleaning facility shall ensure that the following operating requirements are met:

- (a) Close the cover whenever articles are not being handled in the degreaser.
- (b) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (c) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### 326 IAC 8-5-5 (Graphic Arts Operations)

The printing operations were constructed after January 1, 1980 and the potential to emit VOC from this facility is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-5-5 do not apply.

### Testing Requirements

The Permittee shall perform stack testing for VOC emissions on one (1) of the extruder lines within 180 days of issuance of this permit. This test is necessary because the emission factor used to calculate VOC emissions from the PVC blender and extruder lines at this source is not approved by USEPA or IDEM, OAQ and the overall emissions of VOC must be less than 100 tons per year for this source to be permitted as an MSOP source.

### Compliance Requirements

The compliance monitoring requirements applicable to this source are as follows:

1. The railcar unloading operation (RRUNLOAD) and the PVC resin blender (BL1) have applicable compliance monitoring conditions as specified below:
  - (a) Visible emission notations of the railcar unloading operation (RRUNLOAD) and the PVC resin blender (BL1) stack exhausts (RRDC and DCBL1) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.
  - (b) In the event that bag failure is observed in a multi-compartment dust collector, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
  - (c) For a single compartment dust collector controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
  - (d) For a single compartment dust collector controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the dust collectors for the railcar unloading operation (RRUNLOAD) and the PVC resin blender (BL1) must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes) and 326 IAC 2-6.1 (MSOP).

## Conclusion

The operation of this PVC and ABS plastic pipe manufacturing plant shall be subject to the conditions of this Minor Source Operating Permit 039-20061-00064.

**Appendix A: Emissions Calculations  
PM and PM10 Emissions from Rail Car Unloading**

**Company Name: North American Bristol Corporation  
Address: 503 East Vistula Street, Bristol, Indiana 46507  
MSOP: 039-20061-00064  
Reviewer: ERG/ST  
Date: August 18, 2006**

Emissions Unit Description	Maximum Throughput (tons/hour)	PM/PM10 Emission Factor (lbs/ton)	Control Device	Collection and Control Efficiency (%)	PTE of PM/PM10 Before Control (tons/year)	PTE of PM/PM10 After Control (tons/year)
Rail Car Unloading (RRUNLOAD)	6.250	2.9E-05	Fabric filter dust collector	95.0%	0.016	0.0008

Emission factor for lime is from AP 42, Chapter 11.6, Table 11.6-4 "Limestone Transfer with Fabric Filter" (SCC 3-05-006-12)(1/95).

Emission factor represents emissions after controls.

Limestone represents the worst case material for unloading from the rail car unloading operations.

Assume all PM emissions are equivalent to PM10.

**Methodology**

PTE of PM/PM10 Before Control (tons/year) = Maximum Throughput (tons/hour) x Emission factor (lbs/ton) x 8760 (hours/year) x 1 ton/2,000 lbs x 1/(1-Control Efficiency (%))

PTE of PM/PM10 After Control (tons/year) = Maximum Throughput (tons/hour) x Emission factor (lbs/ton) x 8760 (hours/year) x 1 ton/2,000 lbs

**Appendix A: Emission Calculations  
PM and PM10 Emissions from Processing and Storage Operations**

**Company Name: North American Bristol Corporation**  
**Address: 503 East Vistula Street, Bristol, Indiana 46507**  
**MSOP: 039-20061-00064**  
**Reviewer: ERG/ST**  
**Date: August 18, 2006**

Emissions Unit ID	Control Device ID	Maximum Throughput Rate (lbs/hour)	PM/PM10 Emission Factor* (lbs/ton)	Outlet Grain Loading (gr/dscf)	Maximum Air Flow Rate (scfm)	PTE of PM/PM10 Before Controls (tons/year)	PTE of PM/PM10 After Controls (lbs/hour)	PTE of PM/PM10 After Controls (tons/year)	326 IAC 6-3-2 Allowable Emissions (lbs/hour)
PVC Resin Blender BL1	DCBL1	10,000		0.020	100		0.02	0.08	12.1
Extruder Line E1	DCE1	1,000	1.76	0.020	100	3.85	0.02	0.08	2.58
Extruder Line E2	DCE2	800	1.76	0.020	100	3.08	0.02	0.08	2.22
Extruder Line E3	DCE3	1,100	1.76	0.020	100	4.24	0.02	0.08	2.75
Extruder Line E4	DCE4	250	1.76	0.020	100	0.96	0.02	0.08	1.02
Extruder Line E5	DCE5	2,400	1.76	0.020	100	9.25	0.02	0.08	4.63
Extruder Line E6	DCE6	1,300	1.76	0.020	100	5.01	0.02	0.08	3.07
Extruder Line E7	DCE7	1,200	1.76	0.020	100	4.63	0.02	0.08	2.91
Extruder Line E8	DCE8	1,000	1.76	0.020	100	3.85	0.02	0.08	2.58
Extruder Line E9	DCE9	900	1.76	0.020	100	3.47	0.02	0.08	2.40
Extruder Line E10	DCE10	1,200	1.76	0.020	100	4.63	0.02	0.08	2.91
ABSDRYER1	DCDRY1	1,280		0.020	100		0.02	0.08	3.04
ABSDRYER2	DCDRY2	1,280		0.020	100		0.02	0.08	3.04
Silo S1	DCS1	3652		0.020	500		0.09	0.38	6.14
Silo S2	DCS3	1800		0.020	500		0.09	0.38	3.82
Silo S3		1800	3.82						
Silo S4	DCS5	3652		0.020	500		0.09	0.38	6.14
Silo S5		3652	6.14						
Silo S6	DCS6	1000		0.020	500		0.09	0.38	2.58
Silo S7	DCS8	3652		0.020	500		0.09	0.38	6.14
Silo S8		3652	6.14						
Silo S9	DCS9	3652		0.020	500		0.09	0.38	6.14
Silo S10	DCS11	8330		0.020	500		0.09	0.38	10.66
Silo S11		8,330	10.66						
Silo S12	DCS12	3652		0.020	500		0.09	0.38	6.14
Silo S13	DCS13	913		0.020	500		0.09	0.38	2.42
Regrinder/Pulverizer R1		500	1.73						3.46
Silo S14	DCS14	913		0.020	500		0.09	0.38	2.42
Silo S15	DCS15	457		0.020	500		0.09		1.52
<b>Totals</b>						<b>46.4</b>		<b>4.73</b>	

Assume all PM emissions are equal to PM10 emissions.

\* PM/PM10 emission factors are from the original MSOP No.039-11656-00064, issued on March 21, 2000. The emission factors are based on an internal study of total material loss and total material throughput. The study found that 1.73 pounds of material was lost for each ton of material processed by the regrinder/pulverizer, and 1.76 pounds of material was lost for each ton of PVC or ABS resin processed by the plant. Since PVC and ABS resin processing occurs in silos, the blender and the extruders, and it is not known exactly where the emissions occur, the PM/PM10 emissions are attributed to the PVC and ABS extruders, as all materials pass through these units. Control devices for BL1, the ABSDRYERs and the silos are intergral to the process

**Methodology**

PTE of PM/PM10 Before Controls (tons/year) = Maximum Throughput (lbs/hour) x Emission Factor (lbs/ton) x 8760 (hours/year) x 1 ton/2,000 lbs

PTE of PM/PM10 After Controls (tons/year) = Outlet Grain Loading (gr/dscf) x Maximum Air Flow Rate (scfm) x 60 (min/hour) x 1 lb/7,000 gr x 8760 (hours/year) x 1 ton/2,000 lbs

Allowable PM (lbs/hour) = 4.1 x (Maximum Throughput Rate (lbs/hour)/ 2,000 lbs)^0.67

**Appendix A: Emissions Calculations**  
**VOC Emissions From the PVC Resin Blender and Extrusion Lines**

**Company Name: North American Bristol Corporation**  
**Address: 503 East Vistula Street, Bristol, Indiana 46507**  
**MSOP: 039-20061-00064**  
**Reviewer: ERG/ST**  
**Date: August 18, 2006**

Emissions Unit ID	Material Type	Maximum Process Rate (lbs/hour)	VOC Emission Factor (lbs/MMlb)	Styrene Emission Factor (lbs/MMlb)	Vinyl Chloride Emission Factor (lbs/MMlb)	PTE of VOC (tons/year)	PTE of Styrene (tons/year)	PTE of Vinyl Chloride (tons/year)
PVC Resin Blender BL1	PVC	10,000	0.77	NA	NA	0.03		
Extruder Line E1	PVC or ABS	1,000	58	1.0	5.0	0.25	0.004	0.02
Extruder Line E2	PVC or ABS	800	58	1.0	5.0	0.20	0.004	0.02
Extruder Line E3	PVC or ABS	1,100	58	1.0	5.0	0.28	0.005	0.02
Extruder Line E4	PVC or ABS	250	58	1.0	5.0	0.06	0.001	0.01
Extruder Line E5	PVC or ABS	2,400	58	1.0	5.0	0.61	0.011	0.05
Extruder Line E6	PVC or ABS	1,300	58	1.0	5.0	0.33	0.006	0.03
Extruder Line E7	PVC or ABS	1,200	58	1.0	5.0	0.30	0.005	0.03
Extruder Line E8	PVC or ABS	1,000	58	1.0	5.0	0.25	0.004	0.02
Extruder Line E9	PVC or ABS	900	58	1.0	5.0	0.23	0.004	0.02
Extruder Line E10	PVC or ABS	1,200	58	1.0	5.0	0.30	0.005	0.03
<b>Totals</b>						<b>2.87</b>	<b>0.049</b>	<b>0.24</b>

The extruders can process a maximum of 2,560 pounds of ABS resin per hour, as they are limited by the throughput rate of the ABS resin dryers. Emission factor for VOC is from "Emission Factor Development for the PVC Pipe Manufacturing Industry" December 1995. Emission factor for styrene is based on the maximum residual styrene monomer content in ABS resin given in MSDS provided by Permittee. Emission factor for vinyl chloride is based on maximum residual vinyl chloride monomer content in PVC resin given in MSDS provided by Permittee.

**METHODOLOGY**

PTE of VOC (lbs/hour) = Maximum Process Rate (lbs/hour) x VOC Emission Factor (lbs/1,000,000 lb)

PTE of VOC/HAP (tons/year) = Maximum Process Rate (lbs/hour) x VOC/HAP Emission Factor (lbs/1,000,000 lb) x 8760 hours/year x 1 ton/2000 lbs

**Appendix A: Emission Calculations**  
**VOC Emissions From Printing Operations and Degreaser**

**Company Name: North American Bristol Corporation**  
**Address: 503 East Vistula Street, Bristol, Indiana 46507**  
**MSOP: 039-20061-00064**  
**Reviewer: ERG/ST**  
**Date: August 18, 2006**

	Material	Density (lbs/gal)	Weight % VOC	Weight % Isophorone	Maximum Usage (gal/hour)	PTE of VOC (lbs/hour)	PTE of VOC (tons/year)	PTE of Isophorone (tons/year)
Flexographic Printers	Ink	7.7	67%	2.5%	0.050	0.26	1.13	0.042
Flexographic Printers	Thinner (acetone) *	6.6	0%	0%	0.0014	0.0	0.0	0.0
Degreaser	Mineral Spirits	6.6	100%	0%	0.0014	0.009	0.040	0.0

\* Acetone is not considered a VOC.

**METHODOLOGY**

PTE of VOC (lbs/hour) = Density (lbs/gal) x Weight % VOC x Maximum Usage (gal/year) x 1 year/8760 hours

PTE of VOC/HAP (tons/year) = Density (lbs/gal) x Weight % VOC/HAP x Maximum Usage (gal/year) x 1 ton/2000 lbs

**Appendix A: Emission Calculations**  
**Combustion Emissions from the Propane-fired Combustion Units**

**Company Name:** North American Bristol Corporation  
**Address:** 503 East Vistula Street, Bristol, Indiana 46507  
**MSOP:** 039-20061-00064  
**Reviewer:** ERG/ST  
**Date:** August 18, 2006

Description	Emission Unit ID	Heat Input Capacity (MMBtu/hour)	Maximum Throughput (10 <sup>3</sup> gal/year)
Propane-fired Combustion	Insignificant Activity	6.00	574

Emission Factors (lbs/10 <sup>3</sup> gal)					
PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
0.4	0.4	0.001	14	1.9	0.5

Potential To Emit (tons/year)					
PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
0.11	0.11	0.00	4.02	0.55	0.14

1,000 gallons of propane has a heat value of 91.5 MMBtu

Emission factors are from AP 42, Chapter 1.5 - Liquefied Petroleum Gas Combustion, Table 1.5-1 (SCC #1-03-010-02) (10/96)

**Methodology**

Maximum Throughput (10<sup>3</sup> gal/year) = Heat Input Capacity (MMBtu/hour) x 8,760 hours/year x 10<sup>3</sup> gal/91.5 MMBtu.

PTE (tons/year) = Maximum Throughput (10<sup>3</sup> gal/year) x Emission Factor (lbs/10<sup>3</sup> gal) x 1 ton/2,000 lbs