

**MINOR SOURCE OPERATING PERMIT
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and
VIGO COUNTY AIR POLLUTION CONTROL**

**PolyOne Corp.
3100 North 35th Street
Terre Haute, Indiana 47804**

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, (326 IAC 2-5.1 if new source), 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 167-17687-00075	
Issued by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: June 24, 2005 Expiration Date: June 24, 2010

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC). 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 compound production operation.

Authorized Individual: Fred Schuler, Plant Manager
Source Address: 3100 North 35th Street, Terre Haute, Indiana, 47804
Mailing Address: 3100 North 35th Street, Terre Haute, Indiana, 47804
General Source Phone: 812-460-5311
SIC Code: 3087
County Location: Vigo
Source Location Status: Nonattainment for ozone under the 8-hour standard
Maintenance attainment for sulfur dioxide
Attainment area for all other criteria pollutants
Source Status: 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 Emissions Units and Pollution Control Equipment Summary

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

- (a) Four (4) PVC resin storage silos, identified as TK-1B – 4B, constructed in 1988 with a maximum storage capacity of 152,000 pounds, loaded via pneumatic conveying system including integral bin filters, utilizing no additional control and exhausting to stacks 1 - 4.
- (b) Four (4) PVC resin storage silos, identified as TK-5B – 8B, constructed in 1982 with a maximum storage capacity of 200,000 pounds, loaded via pneumatic conveying system including integral bin filters, utilizing no additional control and exhausting to stacks 5 - 8.
- (c) One (1) CaCO₃ storage silo, identified as TK-9B, constructed in 1988 with a maximum storage capacity of 120,000 pounds, loaded via pneumatic conveying system including an integral bin filter, utilizing no additional control and exhausting to stack 9.
- (d) One (1) closed loop CaCO₃ transfer system, identified as BL-7B, constructed in 1988 with a maximum capacity of 590 cfm.
- (e) Three (3) railcar unloading blowers, identified as BL-2B, BL-4B, and BL-6B, constructed in 1990 with maximum flow rates of 680 cfm, 1,000 cfm, and 1,300 cfm respectively, loaded via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 11 - 13.
- (f) Four (4) PVC resin transfer blower lines E, H, F, and C, identified as BL- 8B – 11B, constructed in 1990 with maximum flow rates of 1,100 cfm, 1,100 cfm, 1,100 cfm, and 720 cfm respectively, transferred via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 14 - 19.

- (g) Two (2) lead air pallet systems, identified as BL-4C and BL-4D, constructed in 1990 each with a maximum flow rate of 190 cfm, loaded and transferred via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 21 - 22.
- (h) One (1) dryblend transfer system, identified as BL-1D, constructed in 1984 with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 23.
- (i) One (1) central dust collection system, identified as BL-CDC, constructed in 1987 with a maximum flow rate of 16,000 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 25.
- (j) Two (2) powder vacuum systems, identified as BL-2U and BL-3U, constructed in 1984 each with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 26 - 27.
- (k) Six (6) pellet transfer systems, identified as BL-5C – 5H, constructed in 1990 each with a maximum flow rate of 4,000 cfm, transferred via pneumatic conveying system including integral doghouses, utilizing no additional control and exhausting to stacks 29, 31, 33, 35, 37, and 39.
- (l) Six (6) pellet cooling systems, identified as BL-6C – 6H, constructed in 1990 each with a maximum flow rate of 13,000 cfm, cooled via pneumatic conveying system including integral doghouses, utilizing no additional control and exhausting to stacks 30, 32, 34, 36, 38, and 40.
- (m) Two (2) pellet silo transfer blowers, identified as TK-1P and TK-2P, constructed in 1984 each with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including integral bin filters, utilizing no additional control and exhausting to stacks 41 - 42.
- (n) Nine (9) liquid storage tanks, identified as TK-5A – 11A and TK-15A – 16A, constructed in 1988 with maximum storage capacities of 27,000 gallons, 28,000 gallons, 23,500 gallons, 41,800 gallons, 28,500 gallons, 85,500 gallons, 78,000 gallons, 40,500 gallons, and 40,000 gallons respectively.
- (o) One (1) PVC resin storage silo, identified as TK-10B, constructed in 1994 with a maximum capacity of 60,000 pounds, loaded via pneumatic conveying system including an integral bin filter, utilizing no additional control and exhausting to stack 10.
- (p) One (1) PVC resin transfer blower – line D, identified as BL-12B, constructed in 1994 with a maximum capacity of 1,100 cfm, transferred via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 15.
- (q) One (1) PVC resin transfer blower – line G, identified as BL-13B, constructed in 1994 with a maximum capacity of 1,100 cfm, transferred via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 18.
- (r) One (1) packaging vacuum system, identified as BL-4U, constructed in 1994 with a maximum capacity of 600 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 57.
- (s) One (1) bin 3 bagger, identified as B-3, constructed in 1994 with a maximum capacity of 2,000 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 58.
- (t) Three (3) pellet silo transfer blowers, identified as TK-3P, TK-4P, and TK-5P, constructed in 1994 each with a maximum capacity of 600 cfm, transferred via pneumatic conveying system

including integral bin filters, utilizing no additional control and exhausting to stacks 43, 55, and 56.

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 Permit No Defense [IC 13]

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 thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

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.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]

This permit 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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

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

- (a) Annual notification shall be submitted to the Office of Air Quality and VCAPC stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and 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, IN 46204

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, IN 47807

- (d) 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, and VCAPC on or before the date it is due.

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:
- (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.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, IN 47807

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMP's shall be submitted to IDEM, OAQ, and VCAPC upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and VCAPC. IDEM, OAQ, and VCAPC may require the Permittee to revise its PMP whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) 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.7 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, IN 47807

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

B.8 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, VCAPC, 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.9 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]
Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch and VCAPC within thirty (30) days of the change.

- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, and VCAPC shall issue a revised permit.

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

B.10 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to VCAPC within thirty (30) calendar days of receipt of a billing.
- (b) The Permittee may call VCAPC at the following telephone number: 1-812-462-3433, to determine the appropriate permit fee.

B.11 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

C.1 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 and VCAPC, the fact that continuance of this permit is not consistent with purposes of this article.

C.2 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.3 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.4 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

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

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.

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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, IN 47807

no later than thirty-five (35) days prior to the intended test date.

- (b) The Permittee shall notify IDEM, OAQ and VCAPC of the actual test date at least fourteen (14) days prior to the actual date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and VCAPC not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, and VCAPC, 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 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11]

-
- (a) Whenever a condition in this permit requires the measurement of total static pressure drop

across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (2%) of full scale reading.

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

C.11 Compliance Response Plan - Preparation and Implementation

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and VCAPC upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
 - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ and VCAPC of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously

submitted a request for a minor permit modification to the permit, and such request has not been denied.

- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

Record Keeping and Reporting Requirements

C.12 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), VCAPC, 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 and VCAPC, 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.13 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 or VCAPC makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or VCAPC 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.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [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

And

Vigo County Air Pollution Control
103 South 3rd Street
Terre Haute, IN 47807

- (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, and VCAPC on or before the date it is due.
- (c) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. 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:

- (a) Four (4) PVC resin storage silos, identified as TK-1B – 4B, constructed in 1988 with a maximum storage capacity of 152,000 pounds, loaded via pneumatic conveying system including integral bin filters, utilizing no control and exhausting to stacks 1 – 4.
- (b) Four (4) PVC resin storage silos, identified as TK-5B – 8B, constructed in 1982 with a maximum storage capacity of 200,000 pounds, loaded via pneumatic conveying system including integral bin filters, utilizing no control and exhausting to stacks 5 – 8.
- (c) One (1) CaCO₃ storage silo, identified as TK-9B, constructed in 1988 with a maximum storage capacity of 120,000 pounds, loaded via pneumatic conveying system including an integral bin filter, utilizing no control and exhausting to stack 9.
- (d) One (1) closed loop CaCO₃ transfer system, identified as BL-7B, constructed in 1988 with a maximum capacity of 590 cfm
- (e) Three (3) railcar unloading blowers, identified as BL-2B, BL-4B, and BL-6B, constructed in 1990 with maximum flow rates of 680 cfm, 1,000 cfm, and 1,300 cfm respectively, loaded via pneumatic conveying system including integral baghouses, utilizing no control and exhausting to stacks 11 – 13.
- (f) Four (4) PVC resin transfer blower lines E, H, F, and C, identified as BL- 8B – 11B, constructed in 1990 with maximum flow rates of 1,100 cfm, 1,100 cfm, 1,100 cfm, and 720 cfm respectively, transferred via pneumatic conveying system including integral baghouses, utilizing no control and exhausting to stacks 14 – 19.
- (g) Two (2) lead air pallet systems, identified as BL-4C and BL-4D, constructed in 1990 each with a maximum flow rate of 190 cfm, loaded and transferred via pneumatic conveying system including integral baghouses, utilizing no control and exhausting to stacks 21 – 22.
- (h) One (1) dryblend transfer system, identified as BL-1D, constructed in 1984 with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no control and exhausting to stack 23.
- (i) One (1) central dust collection system, identified as BL-CDC, constructed in 1987 with a maximum flow rate of 16,000 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no control and exhausting to stack 25.
- (j) Two (2) powder vacuum systems, identified as BL-2U and BL-3U, constructed in 1984 each with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including integral baghouses, utilizing no control and exhausting to stacks 26 – 27.
- (k) Six (6) pellet transfer systems, identified as BL-5C – 5H, constructed in 1990 each with a maximum flow rate of 4,000 cfm, transferred via pneumatic conveying system including integral doghouses, utilizing no control and exhausting to stacks 29, 31, 33, 35, 37, and 39.
- (l) Six (6) pellet cooling systems, identified as BL-6C – 6H, constructed in 1990 each with a maximum flow rate of 13,000 cfm, cooled via pneumatic conveying system including integral doghouses, utilizing no control and exhausting to stacks 30, 32, 34, 36, 38, and 40.
- (m) Two (2) pellet silo transfer blowers, identified as TK-1P and TK-2P, constructed in 1984 each with a maximum flow rate of 600 cfm, transferred via pneumatic conveying system including integral bin filters, utilizing no control and exhausting to stacks 41 – 42.
- (n) Nine (9) liquid storage tanks, identified as TK-5A – 11A and TK-15A – 16A, constructed in 1988 with maximum storage capacities of 27,000 gallons, 28,000 gallons, 23,500 gallons, 41,800 gallons, 28,500 gallons, 85,500 gallons, 78,000 gallons, 40,500 gallons, and 40,000 gallons respectively.
- (o) One (1) PVC resin storage silo, identified as TK-10B, constructed in 1994 with a maximum capacity of 60,000 pounds loaded via pneumatic conveying system including an integral bin filter, utilizing no control and exhausting to stack 10.
- (p) One (1) PVC resin transfer blower – line D, identified as BL-12B, constructed in 1994 with a maximum capacity of 1,100 cfm transferred via pneumatic conveying system including an integral baghouse, utilizing no control and exhausting to stack 15.
- (q) One (1) PVC resin transfer blower – line G, identified as BL-13B, constructed in 1994 with a maximum capacity of 1,100 cfm, transferred via pneumatic conveying system including an integral baghouse, utilizing no control and exhausting to stack 18.
- (r) One (1) packaging vacuum system, identified as BL-4U, constructed in 1994 with a maximum capacity of

- 600 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no control and exhausting to stack 57.
- (s) One (1) bin 3 bagger, identified as B-3, constructed in 1994 with a maximum capacity of 2,000 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no control and exhausting to stack 58.
 - (t) Three (3) pellet silo transfer blowers, identified as TK-3P, TK-4P, and TK-5P, constructed in 1994 each with a maximum capacity of 600 cfm, loaded via pneumatic conveying system including integral bin filters, utilizing no control and exhausting to stacks 43, 55, and 56.

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

Emission Limitations and Standards

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 each emission unit in the PVC compound production operation shall be limited by the following:

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:

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

This results in a total emission rate of 12.05 pounds per hour at a process weight rate of 5 tons per hour (all EU's combined) as 5 tons per hour is the bottlenecked production limitation at the pellet transfer and cooling systems.

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 this facility and its control devices.

Compliance Determination Requirements

D.1.3 Particulate Control

In order to comply with D.1.1, the bin filters, baghouses, and doghouses for particulate control shall be in operation and control emissions from the facility at all times that the facility is in operation.

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

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the bin filter, baghouse, and doghouse exhausts (TK-1B, TK-2B, TK-3B, TK-4B, TK-5B, TK-6B, TK-7B, TK-8B, TK-9B, BL-2B, BL-4B, BL-6B, BL-11B, BL-8B, BL-10B, BL-9B, BL-4C, BL-4D, BL-1D, BL-CDC, BL-2U, BL-3U, BL-5C, BL-6C, BL-5D, BL-6D, BL-5E, BL-6E, BL-5F, BL-6F, BL-5G, BL-6G, BL-5H, BL-6H, TK-1P, TK-2P, BL-4U, B-3, TK-10B, BL-12B, BL-13B, TK-3P, TK-4P, TK-5P) shall be performed once per week 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

D.1.5 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags integrated into the manufacturing processes. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

D.1.6 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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 and VCAPC 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.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

D.1.7 Cyclone Inspections

An inspection shall be performed each calendar quarter of all extruder line cyclones integrated into the process when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months.

D.1.8 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 -

Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement

D.1.9 Record Keeping Requirements

- (a) To document compliance with Condition D.1.3, the Permittee shall maintain records of visible emission notations of the bin filter, baghouse, and doghouse exhausts once per week.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain records of the results of the inspections required under Condition D.1.6.
- (c) To document compliance with Condition D.1.4, the Permittee shall maintain records of the results of the inspections required under Condition D.1.4.
- (d) To document compliance with Condition D.1.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

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

And

VIGO COUNTY AIR POLLUTION CONTROL

**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).

Company Name:	PolyOne Corp.
Address:	3100 North 35th Street
City:	Terre Haute
Phone #:	812-460-5311
MSOP #:	167-17687-00075

I hereby certify that PolyOne Corp. is

still in operation.

I hereby certify that PolyOne Corp. is

no longer in operation.

in compliance with the requirements of MSOP 167-17687-00075.

not in compliance with the requirements of MSOP 167-17687-00075.

Authorized Individual (typed):
Title:
Signature:
Date:

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.

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

**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 PERM 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: ____/____/19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/19____ _____ 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
and Vigo County Air Pollution Control**

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

Source Background and Description

Source Name:	PolyOne Corp.
Source Location:	3100 N. 25th Street, Terre Haute, Indiana 47804
County:	Vigo
SIC Code:	3087
Operation Permit No.:	167-17687-00075
Permit Reviewer:	Scott Sines

The Office of Air Quality (OAQ) and Vigo County Air Pollution Control (VCAPC) have reviewed an application from PolyOne Corp. relating to the operation of a PVC compound production operation.

Permitted Emission Units and Pollution Control Equipment

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

- (a) Four (4) PVC resin storage silos, identified as TK-1B – 4B, constructed in 1988 with a maximum storage capacity of 152,000 pounds, loaded via pneumatic conveying system including integral bin filters, utilizing no additional control and exhausting to stacks 1 - 4.
- (b) Four (4) PVC resin storage silos, identified as TK-5B – 8B, constructed in 1982 with a maximum storage capacity of 200,000 pounds, loaded via pneumatic conveying system including integral bin filters, utilizing no additional control and exhausting to stacks 5 - 8.
- (c) One (1) CaCO₃ storage silo, identified as TK-9B, constructed in 1988 with a maximum storage capacity of 120,000 pounds, loaded via pneumatic conveying system including an integral bin filter, utilizing no additional control and exhausting to stack 9.
- (d) One (1) closed loop CaCO₃ transfer system, identified as BL-7B, constructed in 1988 with a maximum capacity of 590 cfm.
- (e) Three (3) railcar unloading blowers, identified as BL-2B, BL-4B, and BL-6B, constructed in 1990 with maximum flow rates of 680 cfm, 1,000 cfm, and 1,300 cfm respectively, loaded via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 11 - 13.
- (f) Four (4) PVC resin transfer blower lines E, H, F, and C, identified as BL- 8B – 11B, constructed in 1990 with maximum flow rates of 1,100 cfm, 1,100 cfm, 1,100 cfm, and 720 cfm respectively, transferred via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 14 - 19.
- (g) Two (2) lead air pallet systems, identified as BL-4C and BL-4D, constructed in 1990 each with a maximum flow rate of 190 cfm, loaded and transferred via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 21 - 22.

- (h) One (1) dryblend transfer system, identified as BL-1D, constructed in 1984 with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 23.
- (i) One (1) central dust collection system, identified as BL-CDC, constructed in 1987 with a maximum flow rate of 16,000 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 25.
- (j) Two (2) powder vacuum systems, identified as BL-2U and BL-3U, constructed in 1984 each with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including integral baghouses, utilizing no additional control and exhausting to stacks 26 - 27.
- (k) Six (6) pellet transfer systems, identified as BL-5C – 5H, constructed in 1990 each with a maximum flow rate of 4,000 cfm, transferred via pneumatic conveying system including integral doghouses, utilizing no additional control and exhausting to stacks 29, 31, 33, 35, 37, and 39.
- (l) Six (6) pellet cooling systems, identified as BL-6C – 6H, constructed in 1990 each with a maximum flow rate of 13,000 cfm, cooled via pneumatic conveying system including integral doghouses, utilizing no additional control and exhausting to stacks 30, 32, 34, 36, 38, and 40.
- (m) Two (2) pellet silo transfer blowers, identified as TK-1P and TK-2P, constructed in 1984 each with a maximum flow rate of 600 cfm, loaded via pneumatic conveying system including integral bin filters, utilizing no additional control and exhausting to stacks 41 - 42.
- (n) Nine (9) liquid storage tanks, identified as TK-5A – 11A and TK-15A – 16A, constructed in 1988 with maximum storage capacities of 27,000 gallons, 28,000 gallons, 23,500 gallons, 41,800 gallons, 28,500 gallons, 85,500 gallons, 78,000 gallons, 40,500 gallons, and 40,000 gallons respectively.
- (o) One (1) PVC resin storage silo, identified as TK-10B, constructed in 1994 with a maximum capacity of 60,000 pounds, loaded via pneumatic conveying system including an integral bin filter, utilizing no additional control and exhausting to stack 10.
- (p) One (1) PVC resin transfer blower – line D, identified as BL-12B, constructed in 1994 with a maximum capacity of 1,100 cfm, transferred via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 15.
- (q) One (1) PVC resin transfer blower – line G, identified as BL-13B, constructed in 1994 with a maximum capacity of 1,100 cfm, transferred via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 18.

Exempted Units

- (a) One (1) packaging vacuum system, identified as BL-4U, constructed in 1994 with a maximum capacity of 600 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 57.
- (b) One (1) bin 3 bagger, identified as B-3, constructed in 1994 with a maximum capacity of 2,000 cfm, loaded via pneumatic conveying system including an integral baghouse, utilizing no additional control and exhausting to stack 58.

- (c) Three (3) pellet silo transfer blowers, identified as TK-3P, TK-4P, and TK-5P, constructed in 1994 each with a maximum capacity of 600 cfm, transferred via pneumatic conveying system including integral bin filters, utilizing no additional control and exhausting to stacks 43, 55, and 56.

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 previous approvals including, but not limited to, the following:

- (a) OP 75-3079-01-93 issued on September 24, 1993; and
- (b) VCAPC construction permit 167-V041-00075 issued on February 23, 1999. Please note that at this period of time VCAPC construction permits did not use IDEM numbers, but were issued with IDEM oversight.

All conditions from previous approvals were incorporated into this permit.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the bin filters, baghouses, and doghouses be considered as an integral part of the material handling, transfer, and cooling processes:

- (a) The bin filters, baghouses, and doghouses are entirely used for product recovery during the manufacturing process. The fabric filters are used to separate the polymer from the air stream and drop it into the next stage of the process. This equipment was not installed to control air pollution and would have been installed even if no air quality regulations were in place.
- (b) The production processes could not work without the fabric filters in place and functioning properly. Should one of these devices fail, that section or line of the production process would need to be shut down until the failure has been corrected otherwise product would be emitted on to the roof of the production plant where it would be lost.
- (c) The bin filters, baghouses, and doghouses are not the "add-on" type of control equipment. The source's potential emissions definition conforms to that described in 326 IAC 1-2-55.

IDEM, OAQ has evaluated the justifications and agreed that the bin filters, baghouses, and doghouses will be considered as an integral part of the material handling, transfer, and cooling processes. Therefore, the permitting level will be determined using the potential to emit after the bin filters, baghouses, and doghouses. Operating conditions in the proposed permit will specify that the bin filters, baghouses, and doghouses shall operate at all times when the material handling, transfer, and cooling processes are in operation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
TK-1B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-2B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-3B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-4B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-5B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-6B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-7B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-8B	PVC Resin Storage Silo	42	1.0	590	Ambient
TK-9B	CaCO ₃ Storage Silo	42	1.0	590	Ambient
BL-2B	Railcar Unloading Blower	70	0.5	680	Ambient
BL-4B	Railcar Unloading Blower	70	0.5	1000	Ambient
BL-6B	Railcar Unloading Blower	70	0.5	1300	Ambient
BL-11B	PVC Resin Transfer Blower	34	0.5	720	Ambient
BL-8B	PVC Resin Transfer Blower	34	0.5	1100	Ambient
BL-10B	PVC Resin Transfer Blower	34	0.5	1100	Ambient
BL-9B	PVC Resin Transfer Blower	34	0.5	1100	Ambient
BL-4C	Lead Air Pallet System	NA	0.42	190	Ambient
BL-4D	Lead Air Pallet System	NA	0.42	190	Ambient
BL-1D	Dryblend Transfer System	38.5	0.42	600	Ambient
BL-CDC	Central Dust Collection	16	2.5	16000	Ambient
BL-2U	Powder Vacuum System	35	0.667	600	Ambient
BL-3U	Powder Vacuum System	35	0.667	600	Ambient
BL-5C	Pellet Transfer System	42	1.5	4000	Ambient
BL-6C	Pellet Cooling System	36	1.66	13000	Ambient
BL-5D	Pellet Transfer System	42	1.5	4000	Ambient
BL-6D	Pellet Cooling System	36	1.66	13000	Ambient
BL-5E	Pellet Transfer System	42	1.5	4000	Ambient
BL-6E	Pellet Cooling System	36	1.66	13000	Ambient
BL-5F	Pellet Transfer System	42	1.5	4000	Ambient
BL-6F	Pellet Cooling System	36	1.66	13000	Ambient
BL-5G	Pellet Transfer System	42	1.5	4000	Ambient
BL-6G	Pellet Cooling System	36	1.66	13000	Ambient
BL-5H	Pellet Transfer System	42	1.5	4000	Ambient
BL-6H	Pellet Cooling System	36	1.66	13000	Ambient
TK-1P	Pellet Silo Transfer Blower	42	1.0	600	Ambient
TK-2P	Pellet Silo Transfer Blower	42	1.0	600	Ambient
BL-4U	Packaging Vacuum System	20	0.42	600	Ambient
B-3	Bin 3 Bagger	75	0.5	2000	Ambient
TK-10B	PVC Resin Storage Silo	48	0.5	590	Ambient
BL-12B	PVC Resin Transfer Blower	34	0.5	1100	Ambient
BL-13B	PVC Resin Transfer Blower	34	0.5	1100	Ambient
TK-3P	Pellet Silo Transfer Blower	42	1.0	600	Ambient
TK-4P	Pellet Silo Transfer Blower	42	1.0	600	Ambient
TK-5P	Pellet Silo Transfer Blower	42	1.0	600	Ambient
BL-7B	CaCO ₃ Transfer System	54	0.8	590	Ambient

Recommendation

The staff recommends to the Commissioner that the operation 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 April 30, 2003.

Emission Calculations

See Appendix A of this document for detailed emission calculations pages 1 through 4.

Potential to Emit (of the Source or Revision) 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	27.27
PM-10	27.27
SO ₂	0.00
VOC	0.727
CO	0.00
NO _x	0.00
HAPs	0.00

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM10 are less than 100 tons per year, but greater than 25 tons per year. The potential to emit 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) 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 Vigo County.

Pollutant	Status
PM-10	attainment
PM2.5	attainment
SO ₂	maintenance attainment
NO ₂	attainment
1-hr Ozone	attainment
8-hr Ozone	basic nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Vigo

County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.

- (b) Vigo County has been classified as attainment or unclassifiable in Indiana for all other 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 for the source section.
- (c) Vigo County has been classified as unclassifiable or attainment for PM2.5. 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 PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.

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	27.27
PM-10	27.27
SO ₂	0.00
VOC	0.727
CO	0.00
NO _x	0.00
Single HAP	0.00
Combination HAPs	0.00

- (a) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) These emissions were based on IDEM-approved stack test results and by 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 167-17687-00075, 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. This status has been verified by the VCAPC inspector assigned 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. As the source does not manufacture polymers listed in Subpart DDD, this subpart does not apply. The source's liquid storage tanks do not contain VOCs, therefore Subpart Kb does not apply.

- (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. The source is not a major source for HAPs (including the liquid storage tanks), therefore 40 CFR Part 61 Subpart F and 40 CFR Part 63 Subparts U, OO, JJJ do not apply.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)

The source is a properly permitted existing source and has not applied to construct any new facilities. The source was constructed in 1984, was a minor source under PSD at the time of construction, is not one of the twenty-eight listed sources, and has not performed any modifications to the source that were individually major since construction. The source remains under the emission limits set forth by 326 IAC 2-2. Therefore it is a minor source and PSD requirements do not apply.

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

The operation of the PVC compound production operation will emit less than 10 tons per year of a single HAP or 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 Vigo County and is not required to have an operating permit under 326 IAC 2-7, and it does not emit lead into the air at levels equal to or greater than 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 6-1 (Nonattainment Area Limitations)

326 IAC 6-1-2 applies to Vigo County sources not specifically listed in 326 IAC 6-1-13 that have the potential to emit one hundred (100) tons or more, or have actual emissions of ten (10) tons or more, of particulate matter per year. As the source is not specifically listed in 326 IAC 6-1-13, does not have the potential to emit one hundred (100) tons or more, and does not have actual emissions of ten (10) tons or more or particulate matter per year 326 IAC 6-1-2 is not applicable to this source.

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

The particulate from each emission unit in the PVC compound production operation shall be limited by the following:

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:

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

This results in a total emission rate of 12.05 pounds per hour at a process weight rate of 5 tons per hour (all EU's combined) as 5 tons per hour is the bottlenecked production limitation at the pellet transfer and cooling systems.

The bin filters, baghouses, and doghouses shall be in operation at all times the facility is in operation, in order to comply with this limit.

326 IAC 2-6.1-5(a)(2)(Compliance Monitoring)

Compliance requirements are included to ensure that the source complies with all applicable state and federal requirements. These requirements are divided into two sections, Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit.

Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Compliance monitoring conditions applicable to this source are as follows:

1. Visible emission notations of the bin filter, baghouse, and doghouse exhausts (TK-1B, TK-2B, TK-3B, TK-4B, TK-5B, TK-6B, TK-7B, TK-8B, TK-9B, BL-2B, BL-4B, BL-6B, BL-11B, BL-8B, BL-10B, BL-9B, BL-4C, BL-4D, BL-1D, BL-CDC, BL-2U, BL-3U, BL-5C, BL-6C, BL-5D, BL-6D, BL-5E, BL-6E, BL-5F, BL-6F, BL-5G, BL-6G, BL-5H, BL-6H, TK-1P, TK-2P, BL-4U, B-3, TK-10B, BL-12B, BL-13B, TK-3P, TK-4P, TK-5P) shall be performed once per week 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. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
2. An inspection shall be performed each calendar quarter of all bags integrated into the manufacturing processes. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced. In the event that bag failure has been observed:
 - (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response

steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 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 and VCAPC 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.

- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.
3. An inspection shall be performed each calendar quarter of all extruder line cyclones integrated into the process when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. 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 - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

Conclusion

The operation of this PVC compound production operation shall be subject to the conditions of the Minor Source Operating Permit 167-17687-00075.

Company Name: PolyOne Corp.
3100 N. 25th Street, Terre Haute IN 47804
MSOP 167-17687-00075
Pit ID: 167-00075
 Reviewer: Scott Sines
 Date: March 23, 2005

Polymer Handling System

This operation is very similar to that at Applied Extrusion Technologies. Therefore the calculations are based on a study used for AET calculations. Based on data gathered in Virginia the resin contains 1 lb dust per 1000 lb. This fraction dust will be used to determine what part of the polymer handled at each emission point is released, since the pneumatic conveying system will be able to collect virtually all of the pea sized resin pellets.

0.001 Fraction of dust contained in the product as delivered by railcar

Emission Point	BL-2B	BL-4B	BL-6B	BL-11B	BL-8B	BL-10B	BL-9B	BL-4C
Description	Rail Car Unloading Blower	Rail Car Unloading Blower	Rail Car Unloading Blower	PVC Resin Transfer Blower - Line C	PVC Resin Transfer Blower - Line E	PVC Resin Transfer Blower - Line F	PVC Resin Transfer Blower - Line H	Lead Air Pallet System
Gas Flow (ACFM)	680	1000	1300	720	1100	1100	1100	190
Max Polymer (lb/hr)	125000	125000	125000	25000	25000	25000	25000	10000
Max Dust (lb/hr)	125	125	125	25	25	25	25	10
Removal Eff.	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
Max Emission (lb/hr)	0.625	0.625	0.625	0.125	0.125	0.125	0.125	0.05
Grains/ACF	0.10723	0.07292	0.05609	0.02025	0.01326	0.01326	0.01326	0.03070
Emission Point	BL-4D	BL-1D	BL-CDC	BL-2U	BL-3U	BL-5C	BL-6C	BL-5D
Description	Lead Air Pallet System	Dryblend Transfer System	Central Dust Collection	Powder Vacuum System	Powder Vacuum System	Line C Pellet Transfer	Line C Pellet Cooling System	Line D Pellet Transfer
Gas Flow (ACFM)	190	600	16000	600	600	4000	13000	4000
Max Polymer (lb/hr)	10000	52000	68000	60000	60000	10000	10000	10000
Max Dust (lb/hr)	10	52	68	60	60	10	10	10
Removal Eff.	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
Max Emission (lb/hr)	0.05	0.26	0.34	0.3	0.3	0.05	0.05	0.05
Grains/ACF	0.03070	0.05056	0.00248	0.05833	0.05833	0.00146	0.00045	0.00146

