



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53 IGCN 1003
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: November 9, 2007
RE: Berry Plastics Corporation / 163-22999-00106
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



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Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY AND EVANSVILLE EPA

**Berry Plastics Corporation
101 Oakley Street
Evansville, Indiana 47710**

(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.

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.: M163-22999-00106	
Issued by: <i>Original signed by</i> Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: November 9, 2007 Expiration Date: November 9, 2012

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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 Evansville EPA (EEPA). 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 molded plastic packaging plant.

Source Address:	101 Oakley Street, Evansville, Indiana 47710
Mailing Address:	P.O. Box 959, Evansville, IN 47706-0959
General Source Phone Number:	(812) 424-2904
SIC Code:	3089
County Location:	Vanderburgh
Source Location Status:	Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Nonattainment NSR 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 consists of the following emission units and pollution control devices:

- (a) Fifty-three (53) injection-molding machines, with a combined maximum throughput of 18 tons per hour, which utilize a cyclone dust collection system for particulate control and do not vent to an exhaust stack. These injection-molding machines consist of:
1. one (1) unit, identified as #34, rated at 660 pounds resin per hour, installed in 1972;
 2. three (3) units, identified as #5, #8, and #29, rated at 550, 704, and 550 lb/hr, respectively, installed in 1978;
 3. one (1) unit, identified as #4, rated at 550 lb/hr, installed in 1980;
 4. one (1) unit, identified as #1, rated at 704 lb/hr, installed in 1983;
 5. three (3) units, identified as #10, #20, and #35, rated at 704, 704 and 660 lb/hr, respectively, installed in 1984;
 6. four (4) units, identified as #2, #13, #22, and #24, rated at 701, 704, 330, and 330 lb/hr, respectively, installed in 1985;
 7. two (2) units, identified as #17 and #18, rated at 330 and 704 lb/hr, respectively, installed in 1987;
 8. one (1) unit, identified as #26, rated at 330 lb/hr, installed in 1988;
 9. one (1) unit, identified as #23, rated at 330 lb/hr, installed in 1989;
 10. four (4) units, identified as #6, #7, #14, and #19, each rated at 704 lb/hr and installed in 1990;
 11. three (3) units, identified as #27, #28, and #39, rated at 330, 330, and 660 lb/hr, respectively, installed in 1992;
 12. one (1) unit, identified as #9, rated at 704 lb/hr, installed in 1994;
 13. one (1) unit, identified as #43, rated at 880 lb/hr, installed in 1996;
 14. one (1) unit, identified as #47, rated at 660 lb/hr, installed in 1997;

15. one (1) unit, identified as #49, rated at 1100 lb/hr, installed in 1998;
 16. three (3) units, identified as #45, #46, and #50, each rated at 1,100 lb/hr and installed in 1999;
 17. four (4) units, identified as #3, #37, #52, and #53, rated 770, 660, 1,100, and 1,100 lb/hr, respectively, installed in 2000; and
 18. two (2) units, identified as #25 and #54, rated at 440 and 330 lb/hr, respectively, installed in 2001.
 19. eight (8) units, identified as #11, #12, #15, #16, #40, #41, #42, and #51, rated at 440, 440, 770, 770, 1,100, 1,100, 1,100, and 1,100 lb/hr, respectively, installed in 2002;
 20. one (1) unit, identified as #48, rated at 880 lb/hr, installed in 2003;
 21. two (2) units, identified as #32 and #44, rated at 242 and 880 lb/hr, respectively, installed in 2004;
 22. two (2) units, identified as #30 and #33, rated at 330 and 550 lb/hr, respectively, installed in 2005; and
 23. three (3) units, identified as #21, #31, and #38, rated at 242, 242, and 1,100 lb/hr, respectively, constructed in 2006.
- (b) One (1) Thermoforming Machine, identified as Line #1, constructed in 2001, rated at 3300 lbs/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack;
- (c) Six (6) Thermoforming Machines, each rated at 4000 lbs/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack, consisting of:
1. one (1) unit identified as Line #2, installed in 2002;
 2. one (1) unit identified as Line #3, installed in 2003;
 3. one (1) unit identified as Line #4, installed in 2004;
 4. one (1) unit identified as Line #5, installed in 2006; and
 5. two (2) units identified as Line #6 and Line #7, installed in 2005.
- (d) Five (5) extruders, identified as Extruder numbers 1 - 5, constructed in 2007, with a combined maximum capacity of 1,231 lb/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack;
- (e) Twenty-two (22) ultraviolet cure ink printers, each with a maximum capacity of 18 plastic parts per minute, which have no air pollution control devices and do not vent to a stack, consisting of:
1. two (2) units identified as TPE15 and TPE17, installed in 2002;
 2. six (6) units identified as TPE22-TPE24, TPE39, TPE40 and TPE42, installed in 2003;
 3. three (3) units identified as TPE19-TPE21, installed in 2004;
 4. seven (7) units identified as TPE27-TPE33 and TPE41, installed in 2005; and
 5. four (4) units identified as TPE35-TPE38, installed in 2006.
- (f) Six (6) silkscreen machines, rated at 0.20 pounds of ink per hour, identified as PSE05, OSE06, OSE08, OSE10, OSE11, OSE04, constructed prior to 1980, which have no air pollution control devices, and vent thru an exhaust stack to the outside air. Each silkscreen machine has its own natural gas burner for process heat;

- (g) Sixteen (16) ultraviolet cure ink printers, with a maximum annual ink use of 90 tons per year, which have no air pollution control devices. Nine (9) of which vent through an exhaust stack to the outside air, seven (7) do not vent to an exhaust stack. Each ultraviolet cure ink printer has its own natural gas burner for process heat. These ultraviolet cure ink printers consist of:
24. three (3) units, identified as TPE08, TPE10, TPE11, installed in 1985;
 25. one (1) unit, identified as TPE09, installed in 1986;
 26. three (3) units, identified as TPE01-TPE03, installed in 1990;
 27. one (1) unit, identified as TPE04, , installed in 1993;
 28. one (1) unit, identified as TPE05, installed in 1994;
 29. one (1) unit, identified as TPE06, installed in 1996;
 30. one (1) unit, identified as TPE07, installed in 1997;
 31. two (2) units, identified as TPE13, and TPE16, installed in 1998;
 32. one (1) unit, identified as TPE14, installed in 2000; and
 33. two (2) units, identified as TPE12 and TPE18, installed in 2001.
- (h) One (1) ultraviolet cure ink Gallus printer line, consisting of 10 stations, constructed in 2007;
- (i) Fifteen (15) solvent parts washers, with a combined maximum capacity of 2.04 tons of cleaning solvent per year, identified as numbers 1 – 15, constructed in 2002. Four (4) of which vent through an exhaust stack to the outside air, the other eleven (11) do not vent to an exhaust stack;
- (j) One (1) 500 gallon above ground hydraulic oil storage tank, constructed in 1989; and
- (k) One (1) 550 gallon above ground virgin solvent storage tank, constructed in 1989.

SECTION B GENERAL CONDITIONS

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][IC 13-15-3-6(a)]

- (a) This permit, M163-22999-00106, 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 and EEPA, 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

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

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 and EEPA, within a reasonable time, any information that IDEM, OAQ and EEPA 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(1). Upon request, the Permittee shall also furnish to IDEM, OAQ and EEPA 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 and EEPA 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:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, IN 46204-2251

and

Evansville EPA
100 E. Walnut St., Suite 100
Evansville, IN 47713
- (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 and EEPA on or before the date it is due.

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

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
- (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 and EEPA upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and EEPA. IDEM, OAQ and EEPA 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 M163-22999-00106 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 ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 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 EEPA 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Evansville EPA
100 E. Walnut St., Suite 100
Evansville, IN 47713

- (b) A timely renewal application is one that is:
- (1) Submitted at least ninety (90) days 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 and EEPA 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 and EEPA 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 and EEPA any additional information identified as being needed to process the application.

B.14 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Evansville EPA
100 E. Walnut St., Suite 100
Evansville, IN 47713

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

- (c) The Permittee shall notify the OAQ and the EEPA within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 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]~~

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, and EEPA 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 the conditions of this permit;
- (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 facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (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.17 Transfer of Ownership or Operational Control [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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Evansville EPA
100 E. Walnut St., Suite 100
Evansville, IN 47713

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

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

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to by the date specified on the invoice.

B.19 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 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 EEPA, 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 thirty percent (30%) 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.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.5 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.6 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
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Evansville EPA
100 E. Walnut St., Suite 100
Evansville, IN 47713

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 2-1.1-1(1).

- (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 [326 IAC 2-6.1-5(a)(2)]

C.7 Performance Testing [326 IAC 3-6]

- (a) 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Evansville EPA
100 E. Walnut St., Suite 100
Evansville, IN 47713

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 test 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 EEPa not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and EEPa 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.8 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 [326 IAC 2-6.1-5(a)(2)]

C.9 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.10 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.11 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 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.

Corrective Actions and Response Steps

C.12 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; and/or
 - (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.13 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, and the EEPA within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility 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 retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.14 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) and the EEPA 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 EEPA, 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.15 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 EEPA makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or EEPA within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.16 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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Evansville EPA
100 E. Walnut St., Suite 100
Evansville, IN 47713

- (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 EEPA on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) 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.

- (e) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ and EEPA. The general public may request this information from the IDEM, OAQ and EEPA under 326 IAC 17.1.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Fifty-three (53) injection-molding machines, with a combined maximum throughput of 18 tons per hour, which utilize a cyclone dust collection system for particulate control and do not vent to an exhaust stack. These injection-molding machines consist of:
1. one (1) unit, identified as #34, rated at 660 pounds resin per hour, installed in 1972;
 2. three (3) units, identified as #5, #8, and #29, rated at 550, 704, and 550 lb/hr, respectively, installed in 1978;
 3. one (1) unit, identified as #4, rated at 550 lb/hr, installed in 1980;
 4. one (1) unit, identified as #1, rated at 704 lb/hr, installed in 1983;
 5. three (3) units, identified as #10, #20, and #35, rated at 704, 704 and 660 lb/hr, respectively, installed in 1984;
 6. four (4) units, identified as #2, #13, #22, and #24, rated at 701, 704, 330, and 330 lb/hr, respectively, installed in 1985;
 7. two (2) units, identified as #17 and #18, rated at 330 and 704 lb/hr, respectively, installed in 1987;
 8. one (1) unit, identified as #26, rated at 330 lb/hr, installed in 1988;
 9. one (1) unit, identified as #23, rated at 330 lb/hr, installed in 1989;
 10. four (4) units, identified as #6, #7, #14, and #19, each rated at 704 lb/hr and installed in 1990;
 11. three (3) units, identified as #27, #28, and #39, rated at 330, 330, and 660 lb/hr, respectively, installed in 1992;
 12. one (1) unit, identified as #9, rated at 704 lb/hr, installed in 1994;
 13. one (1) unit, identified as #43, rated at 880 lb/hr, installed in 1996;
 14. one (1) unit, identified as #47, rated at 660 lb/hr, installed in 1997;
 15. one (1) unit, identified as #49, rated at 1100 lb/hr, installed in 1998;
 16. three (3) units, identified as #45, #46, and #50, each rated at 1,100 lb/hr and installed in 1999;
 17. four (4) units, identified as #3, #37, #52, and #53, rated 770, 660, 1,100, and 1,100 lb/hr, respectively, installed in 2000; and
 18. two (2) units, identified as #25 and #54, rated at 440 and 330 lb/hr, respectively, installed in 2001.
 19. eight (8) units, identified as #11, #12, #15, #16, #40, #41, #42, and #51, rated at 440, 440, 770, 770, 1,100, 1,100, 1,100, and 1,100 lb/hr, respectively, installed in 2002;
 20. one (1) unit, identified as #48, rated at 880 lb/hr, installed in 2003;
 21. two (2) units, identified as #32 and #44, rated at 242 and 880 lb/hr, respectively, installed in 2004;
 22. two (2) units, identified as #30 and #33, rated at 330 and 550 lb/hr, respectively, installed in 2005; and
 23. three (3) units, identified as #21, #31, and #38, rated at 242, 242, and 1,100 lb/hr, respectively, constructed in 2006.
- (b) One (1) Thermoforming Machine, identified as Line #1, constructed in 2001, rated at 3300 lbs/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack;

(c) Six (6) Thermoforming Machines, each rated at 4000 lbs/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack, consisting of:

1. one (1) unit identified as Line #2, installed in 2002;
2. one (1) unit identified as Line #3, installed in 2003;
3. one (1) unit identified as Line #4, installed in 2004;
4. one (1) unit identified as Line #5, installed in 2006; and
5. two (2) units Identified as Line #6 and Line #7, installed in 2005.

(d) Five (5) extruders, identified as Extruder numbers 1 - 5, constructed in 2007, with a combined maximum capacity of 1,231 lb/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack;

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

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

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on 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:

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

Emission Unit/Activity	Process Weight Rate (lbs/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
injection molding machines, #1-52	36,000	28.43
thermoforming machines, Lines #1-7	28,000	24.03
extruders, #1-5	1,231	2.96

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 these facilities and any control devices.

Compliance Determination Requirements

D.1.3 Particulate Matter (PM)

The cyclone dust control systems shall be in operation and control emissions from the injection molding machines, #1-52, thermoforming machines, lines #1-7, and five (5) extruders, identified as extruder numbers 1 - 5, at all times that the emission units are in operation.

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

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the cyclone dust collection systems controlling the injection molding machines, #1-52, thermoforming machines, Lines #1-7, and extruders, #1-5, 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.
- (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.1.5 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. 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). 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 Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.6 Record Keeping Requirement

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain a daily record of visible emission notations of the cyclone dust collection systems controlling the injection molding machines, #1-52, thermoforming machines, Lines #1-7, and extruders, #1-5, stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).
- (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:

- (a) Fifteen (15) solvent parts washers, with a combined maximum capacity of 2.04 tons of cleaning solvent per year, identified as numbers 1 – 15, constructed in 2002. Four (4) of which vent through an exhaust stack to the outside air, the other eleven (11) do not vent to an exhaust stack;

(The information describing the process contained in this emissions unit 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 operation), the owner or operator 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.

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

Pursuant to 326 IAC 8-3-5 (Organic Solvent Degreasing Operations)

- (a) The owner or operator of the cold cleaner degreaser shall ensure that the following control equipment 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 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) The owner or operator of a cold cleaning facility 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
and EEPA**

**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:	Berry Plastics Corporation
Address:	101 Oakley Street
City:	Evansville, Indiana 47710
Phone #:	(812) 424-2904
MSOP #:	M163-22999-00106

I hereby certify that Berry Plastics Corporation is :

still in operation.

no longer in operation.

I hereby certify that Berry Plastics Corporation is :

in compliance with the requirements of MSOP M163-22999-00106.

not in compliance with the requirements of MSOP M163-22999-00106.

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 - 317 233-6865

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 ?_____, 100 TONS/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
and EEPA**

**MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION**

Source Name: Berry Plastics Corporation
Source Address: 101 Oakley Street, Evansville, Indiana 47710
Mailing Address: P.O. Box 959, Evansville, IN 47706-0959
MSOP No.: M163-22999-00106

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Notification
- Test Result (specify) _____
- Report (specify) _____
- Notification (specify) _____
- Affidavit (specify) _____
- Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**Indiana Department of Environmental Management
Office of Air Quality
And Evansville EPA**

Addendum to the
Technical Support Document for a
Minor Source Operating Permit Renewal

Source Name:	Berry Plastics Corporation
Source Location:	101 Oakley Street, Evansville, IN 47710
County:	Vanderburgh
SIC Code:	3089
Permit Renewal No.:	163-22999-00106
Permit Reviewer:	Julia Handley/EVP

On September 27, 2007, the Office of Air Quality (OAQ) had a notice published in the Evansville Courier, Evansville, Indiana, stating that Berry Plastics Corporation had applied for a Minor Source Operating Permit (MSOP) Renewal to continue to operate a molded plastic packaging plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On October 19, 2007, Charles J. Staehler of August Mack Environmental, on behalf of Berry Plastics Corporation, submitted comments on the proposed permit. The summary of the comments and corresponding responses is as follows (additions in **bold**, deletions in ~~strikeout~~):

Comment 1:

Berry Plastics requests Condition D.1.4 Parametric Monitoring be changed. Berry Plastics proposes to use the visible emissions notations as the monitoring method and change Condition D.1.4 to read:

“The Permittee shall record the visible emission readings from the cyclone dust collection systems controlling the injection molding machines, #1-52, thermoforming machines, Lines #1-7, and extruders, #1-5, at least once per day when any of the injection molding, thermoforming and extruding operations are in operation. 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. If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C- Response to Excursions or Exceedances.”

Response to Comment 1:

IDEM, OAQ has determined that compliance monitoring of visible emission notations are sufficient to ensure proper operation of the control device. Conditions D.1.4 and D.1.6 are revised as shown below.

D.1.4 Parametric Monitoring

~~The Permittee shall record the pressure drop readings from the cyclone dust collection systems controlling the injection molding machines, #1-52, thermoforming machines, Lines #1-7, and extruders, #1-5, at least once per day when any of the injection molding, thermoforming and extruding operations are in operation. When for any one reading, the pressure drop across the cyclone is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit. The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.~~

D.1.4 Visible Emissions Notations

- (a) Visible emission notations of the cyclone dust collection systems controlling the injection molding machines, #1-52, thermoforming machines, Lines #1-7, and extruders, #1-5, 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.**
- (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 Record Keeping Requirement

- (a) ~~To document compliance with Condition D.1.5, the Permittee shall maintain a daily record of the pressure drop across the cyclones controlling injection molding machines, #1-52, thermoforming machines, Lines #1-7, and extruders, #1-5. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).~~ To document compliance with Condition D.1.4, the Permittee shall maintain a daily record of visible emission notations of the cyclone dust collection systems controlling the injection molding machines, #1-52, thermoforming machines, Lines #1-7, and extruders, #1-5, stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).**
- (b) 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
And Evansville EPA

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

Source Background and Description

Source Name:	Berry Plastics Corporation
Source Location:	101 Oakley Street, Evansville, IN 47710
County:	Vanderburgh
SIC Code:	3089
Permit Renewal No.:	163-22999-00106
Permit Reviewer:	Julia Handley/EVP

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Berry Plastics Corporation relating to the operation of a molded plastic packaging plant.

History

On April 24, 2006, Berry Plastics Corporation submitted an application to the OAQ requesting to renew its operating permit. Berry Plastics Corporation was issued MSOP No. 163-12743-00106 on July 19, 2001.

Permitted Emission Units and Pollution Control Equipment

- (a) Fifty-three (53) injection-molding machines, with a combined maximum throughput of 18 tons per hour, which utilize a cyclone dust collection system for particulate control and do not vent to an exhaust stack. These injection-molding machines consist of:
1. one (1) unit, identified as #34, rated at 660 pounds resin per hour, installed in 1972;
 2. three (3) units, identified as #5, #8, and #29, rated at 550, 704, and 550 lb/hr, respectively, installed in 1978;
 3. one (1) unit, identified as #4, rated at 550 lb/hr, installed in 1980;
 4. one (1) unit, identified as #1, rated at 704 lb/hr, installed in 1983;
 5. three (3) units, identified as #10, #20, and #35, rated at 704, 704 and 660 lb/hr, respectively, installed in 1984;
 6. four (4) units, identified as #2, #13, #22, and #24, rated at 701, 704, 330, and 330 lb/hr, respectively, installed in 1985;
 7. two (2) units, identified as #17 and #18, rated at 330 and 704 lb/hr, respectively, installed in 1987;
 8. one (1) unit, identified as #26, rated at 330 lb/hr, installed in 1988;
 9. one (1) unit, identified as #23, rated at 330 lb/hr, installed in 1989;
 10. four (4) units, identified as #6, #7, #14, and #19, each rated at 704 lb/hr and installed in 1990;
 11. three (3) units, identified as #27, #28, and #39, rated at 330, 330, and 660 lb/hr, respectively, installed in 1992;
 12. one (1) unit, identified as #9, rated at 704 lb/hr, installed in 1994;
 13. one (1) unit, identified as #43, rated at 880 lb/hr, installed in 1996;
 14. one (1) unit, identified as #47, rated at 660 lb/hr, installed in 1997;
 15. one (1) unit, identified as #49, rated at 1100 lb/hr, installed in 1998;

16. three (3) units, identified as #45, #46, and #50, each rated at 1,100 lb/hr and installed in 1999;
 17. four (4) units, identified as #3, #37, #52, and #53, rated 770, 660, 1,100, and 1,100 lb/hr, respectively, installed in 2000; and
 18. two (2) units, identified as #25 and #54, rated at 440 and 330 lb/hr, respectively, installed in 2001.
 19. eight (8) units, identified as #11, #12, #15, #16, #40, #41, #42, and #51, rated at 440, 440, 770, 770, 1,100, 1,100, 1,100, and 1,100 lb/hr, respectively, installed in 2002;
 20. one (1) unit, identified as #48, rated at 880 lb/hr, installed in 2003;
 21. two (2) units, identified as #32 and #44, rated at 242 and 880 lb/hr, respectively, installed in 2004;
 22. two (2) units, identified as #30 and #33, rated at 330 and 550 lb/hr, respectively, installed in 2005; and
 23. three (3) units, identified as #21, #31, and #38, rated at 242, 242, and 1,100 lb/hr, respectively, constructed in 2006.
- (b) One (1) Thermoforming Machine, identified as Line #1, constructed in 2001, rated at 3300 lbs/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack;
- (c) Six (6) Thermoforming Machines, each rated at 4000 lbs/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack, consisting of:
1. one (1) unit identified as Line #2, installed in 2002;
 2. one (1) unit identified as Line #3, installed in 2003;
 3. one (1) unit identified as Line #4, installed in 2004;
 4. one (1) unit identified as Line #5, installed in 2006; and
 5. two (2) units identified as Line #6 and Line #7, installed in 2005.
- (d) Five (5) extruders, identified as Extruder numbers 1 - 5, constructed in 2007, with a combined maximum capacity of 1,231 lb/hr, utilizing a cyclone dust collection system for particulate control and not venting to an exhaust stack;
- (e) Twenty-two (22) ultraviolet cure ink printers, each with a maximum capacity of 18 plastic parts per minute, which have no air pollution control devices and do not vent to a stack, consisting of:
1. two (2) units identified as TPE15 and TPE17, installed in 2002;
 2. six (6) units identified as TPE22-TPE24, TPE39, TPE40 and TPE42, installed in 2003;
 3. three (3) units identified as TPE19-TPE21, installed in 2004;
 4. seven (7) units identified as TPE27-TPE33 and TPE41, installed in 2005; and
 5. four (4) units identified as TPE35-TPE38, installed in 2006.
- (f) Six (6) silkscreen machines, rated at 0.20 pounds of ink per hour, identified as PSE05, OSE06, OSE08, OSE10, OSE11, OSE04, constructed prior to 1980, which have no air pollution control devices, and vent thru an exhaust stack to the outside air. Each silkscreen machine has its own natural gas burner for process heat;
- (g) Sixteen (16) ultraviolet cure ink printers, with a maximum annual ink use of 90 tons per year, which have no air pollution control devices. Nine (9) of which vent through an exhaust stack to the outside air, seven (7) do not vent to an exhaust stack. Each ultraviolet cure ink printer has its own natural gas burner for process heat. These ultraviolet cure ink printers consist of:

24. three (3) units, identified as TPE08, TPE10, TPE11, installed in 1985;
 25. one (1) unit, identified as TPE09, installed in 1986;
 26. three (3) units, identified as TPE01-TPE03, installed in 1990;
 27. one (1) unit, identified as TPE04, , installed in 1993;
 28. one (1) unit, identified as TPE05, installed in 1994;
 29. one (1) unit, identified as TPE06, installed in 1996;
 30. one (1) unit, identified as TPE07, installed in 1997;
 31. two (2) units, identified as TPE13, and TPE16, installed in 1998;
 32. one (1) unit, identified as TPE14, installed in 2000; and
 33. two (2) units, identified as TPE12 and TPE18, installed in 2001.
- (h) One (1) ultraviolet cure ink Gallus printer line, consisting of 10 stations, constructed in 2007;
- (i) Fifteen (15) solvent parts washers, with a combined maximum capacity of 2.04 tons of cleaning solvent per year, identified as numbers 1 – 15, constructed in 2002. Four (4) of which vent through an exhaust stack to the outside air, the other eleven (11) do not vent to an exhaust stack;
- (j) One (1) 500 gallon above ground hydraulic oil storage tank, constructed in 1989; and
- (k) One (1) 550 gallon above ground virgin solvent storage tank, constructed in 1989.

Emission Units and Pollution Control Equipment Removed From the Source

- (a) Two (2) heated thermal decorators, HTD1 and HTD2. HTD1 has a 0.294 MMBtu/hr natural gas burner. HTD2 has a 0.504 MMBtu /hr natural gas burner;
- (b) One (1) Kase KPL 40 – 4 color lid printer;
- (c) Three (3) silk screen machines; and
- (d) Fifteen (15) injection molding machines, which have no air pollution control devices and do not vent to an exhaust stack.

Existing Approvals

Since the issuance of the MSOP 163-12743-00106 on July 19, 2001, the source has also constructed or has been operating under the following approvals:

- (a) First MSOP Notice Only Change Permit No. 163-15813-00106, issued on April 15, 2002;
- (b) Second MSOP Notice Only Change Permit No. 163-16114-00106, issued on November 22, 2002; and
- (c) Third MSOP Notice Only Change Permit No. 163-19942-00106, issued on November 24, 2004.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Air Pollution Control Justification as an Integral Part of the Process

Berry Plastics has submitted the following justification that the cyclone dust collection system be considered as an integral part of the injection molding and thermoforming operations:

- (a) The operation of the cyclone dust collection system results in a positive net economic effect because it enables the plastics forming operations to recycle excess materials that did not form into plastic and results in at least a 95% decrease in plastic forming material use over what it would be if there were no collection and recycling equipment operating.
- (b) The dust collectors located at the facility are all passive dust collection-filtering devices. All transfer of the raw material and the recycled material is done with pneumatic conveying. The pneumatic conveying is achieved using a vacuum pump. In order to operate the vacuum pump, an integral cyclone must be operated to prevent the vacuum pump from becoming fouled by the resin rendering it inoperable. Therefore, the cyclone is necessary to the passive dust collection system.

IDEM, OAQ has evaluated the justifications and agreed that the cyclone dust collection system will be considered as an integral part of the injection molding and thermoforming operations. Therefore, the permitting level will be determined using the potential to emit after the cyclone dust control system. Operating conditions in the proposed permit will specify that the passive dust collection-filtering devices shall operate at all times when the injection molding and thermoforming operations 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)
TP01	UV printer	37.0	1.0	300	130
TP02-05, 08,13	UV printer	28.5	1.9	500	130
TP06	UV printer	28.5	0.7	500	130
TP07	UV printer	32.0	0.7	500	130
CP04-SS08	Silkscreen printer	23.5	1.9	5900	130
SS09-SS14	Silkscreen printer	23.5	1.9	5900	130
Solvent tank	Solvent wash tanks	24.0	0.8	200	Ambient
Fork truck	Fork truck repair exhaust	22.5	0.4	200	Ambient
Screen making	Screen making exhaust hood	28.5	0.7	200	Ambient
Cutoff Saw	Cutoff Saw Exhaust Hood	23.0	1.7	200	Ambient

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Vanderburgh County.

Pollutant	Status
PM ₁₀	attainment
PM _{2.5}	nonattainment
SO ₂	attainment
NOx	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

- (a) U.S. EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Vanderburgh County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the Nonattainment New Source Review requirements. See the State Rule Applicability – Entire Source section.
- (b) 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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Vanderburgh County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NOx 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.
- (c) Vanderburgh 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 for the source section.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard.
- (e) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD or Emission Offset applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	10.56
PM-10	10.56
SO ₂	0.01
VOC	67.31
CO	0.86
NO _x	1.02

HAPs	tons/year
Formaldehyde	less than 10
Acrolein	less than 10
Acetaldehyde	less than 10
Propionaldehyde	less than 10
Acrylic Acid	less than 10
Ethyl Benzene	less than 10
Styrene	less than 10
Acetophenone	less than 10
Xylene	less than 10
Napthalene	less than 10
1,2,4 Trimethylbenzene	less than 10
Total	less than 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of each criteria pollutant is less than 100 tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of VOCs is greater than 25 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 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

Source Status

Source 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	10.56
PM-10	10.56
SO ₂	0.01
VOC	67.31
CO	0.86
NO _x	1.02
Single HAP	less than 10
Combination HAPs	less than 25

- (a) This source is not a major stationary source because no attainment 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. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (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 emissions are not counted toward determination of PSD applicability.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source 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) The one (1) 500 gallon tank and the one (1) 550 gallon tank, both constructed in 1989, are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110, Subpart Kb) "Standards of Performance for Volatile Organic Liquid Storage Vessels". The storage tanks each have capacities less than 75 cubic meters (m³) (19,813 gallons). Therefore, pursuant to 40 CFR 60.110b(a), they are not subject to this rule and these requirements are not included in the permit.
- (b) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart T – National Emission Standards for Halogenated Solvent Cleaning because they do not use any of the solvents listed in Subpart T. Therefore, these requirements are not included in the permit.
- (c) This source is not a major source of Hazardous Air Pollutants, as defined in 40 CFR 63.2; therefore, Subpart KK – National Emission Standards for the printing and publishing industries is not included in the permit.

State Rule Applicability - Entire Source

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

This source is not a major source for Prevention of Significant Deterioration, 326 IAC 2-2. Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are not counted toward the determination of PSD applicability. The potential to emit of each criteria pollutant from nonfugitive facilities is less than 250 tons per year. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

326 IAC 2-1.1-5 (Nonattainment NSR)

Vanderburgh County has been designated as non-attainment for PM 2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM 2.5 major NSR regulations, states should assume that a major stationary source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A major source in a nonattainment area is a source that emits or has the potential to emit 100 tons per year of any regulated pollutant. Berry Plastics Corporation has a potential to emit of less than 100 tons per year of PM10. Therefore, since PM10 emissions represent PM2.5 emissions, Nonattainment NSR does not apply.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, LaPorte, or Porter counties, and it does not emit lead into the ambient air at levels equal to or greater than 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 thirty percent (30%) 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.

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

The operation of this stationary molded plastic packaging plant will 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 6-4 (Fugitive Dust Emissions)

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).

State Rule Applicability – Individual Facilities

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8.

This rule does not apply to the six (6) silkscreen machines identified as PSE05, OSE06, OSE08, OSE10, OSE11, OSE04, and four (4) injection molding machines (identified as numbers 5, 8, 29, and 34) because these units were constructed prior to 1980 and have not been modified since their initial construction. Therefore, the requirements of 326 IAC 8-1-6 are not included in this permit for these facilities.

This rule does not apply to the five (5) extruders, fifteen (15) solvent parts washers, thirty-eight (38) ultraviolet cure ink printers, fifty-one (51) injection-molding machines, seven (7) Thermoforming Machines, and one (1) ultraviolet cure ink Gallus printer line because these facilities do not have the potential to emit greater than 25 tons VOC per year. Therefore, the requirements of 326 IAC 8-1-6 are not included in this permit for these facilities.

326 IAC 6.5-1-2 (Particulate Emissions Limitations)

The requirements of this rule apply to sources located in designated counties with potential to emit greater than 100 tons per year or actual emissions greater than 10 tons per year. This source is located in Vanderburgh County which is one of the designated counties in 326 IAC 6.5-1, but the source does not have potential emissions or actual emissions greater than the threshold values. Therefore, pursuant to 326 IAC 6.5-1-1(a)(2) the requirements of 326 IAC 6.5-1-2 are not applicable to this source.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emitted from the facilities listed below shall be limited as stated, based on 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:

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

Emission Unit/Activity	Process Weight Rate (lbs/hr)	Allowable Emissions (326 IAC 6-3-2) (lb/hr)
injection molding operations, #1-52	36,000	28.43
thermoforming operations, Lines #1-7	28,000	24.03
extruding machines, #1-5	1,231	2.96

The passive dust collection system associated with each of the facilities listed above shall be in operation at all times that these facilities are in operation, in order to comply with this limit.

326 IAC 8-2-5 (Paper Coating Operations)

This rule is not applicable to this source because there is not 100% saturation of the substrate in either the ultraviolet or screen printing operations.

326 IAC 8-3-2 (Cold cleaner operation)

Pursuant to 326 IAC 8-3-1(a)(2), the parts washers are subject to the requirements of 326 IAC 8-3-2 (Cold cleaner operation) since they were constructed after January 1, 1980. Pursuant to 326 IAC 8-3-2 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.

326 IAC 8-3-5 (Organic Solvent Degreasing Operations)

Pursuant to 326 IAC 8-3-1(b)(2), 326 IAC 8-3-5 applies to the cold cleaner degreaser without remote solvent reservoir constructed after July 1, 1990 located any county.

“Cold cleaner degreaser” means a tank containing organic solvent at a temperature below the boiling point of the solvent which is used to spray, brush or immerse an article for the purpose of cleaning or degreasing the article.

Kamic Corporation parts washer/degreaser is maintained at 90°C, which is below 100°C, the boiling point of the solvent used. Therefore, it is a cold cleaner degreaser and is subject 326 IAC 8-3-5:

- (a) The owner or operator of the cold cleaner degreaser shall ensure that the following control equipment 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 (38EC) (one hundred degrees Fahrenheit (100EF));
 - (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 (38EC) (one hundred degrees Fahrenheit (100EF)), 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 (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent 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) The owner or operator of a cold cleaning facility 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.

326 IAC 8-3 is not applicable to the parts washer/degreaser when it is used to clean parts prior to heat treatment, because the liquid being used does not contain VOC.

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

This rule is not applicable to this source because the total potential to emit is less than 100 tons per year of volatile organic compounds.

Recommendation

The staff recommends to the Commissioner that the MSOP 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.

An application for the purposes of this review was received on April 4, 2006.

Conclusion

The operation of this molded plastic packaging plant shall be subject to the conditions of the attached MSOP Renewal No. 163-22999-00106.

Appendix A: Emission Calculations Summary

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 47710
MSOP No.: 163-22999-00106
Reviewer: Julia Handley/EVP

Potential Emissions (tons/year)							
Emissions Generating Activity							
Pollutant	Injection Molding Machines*	Thermoforming Lines 1-7*	Extruders	Printing Operations	Cleaning Operations	Natural Gas Usage (MMCF/Year)	TOTAL
PM	3.27	3.27	3.94	0.00	0.00	0.08	10.56
PM10	3.27	3.27	3.94	0.00	0.00	0.08	10.56
SO2	0.00	0.00	0.00	0.00	0.00	0.01	0.01
NOx	0.00	0.00	0.00	0.00	0.00	1.02	1.02
VOC	16.32	9.52	0.19	2.59	38.64	0.06	67.31
CO	0.00	0.00	0.00	0.00	0.00	0.86	0.86
total HAPs	0.40	0.50	0.00	0.11	6.82	0.02	7.85
worst case single HAP	0.24	0.29	0.00	0.06	0.00	0.02	

*PM control considered integral to Injection Molding and Thermoforming processes.
 Total emissions based on rated capacity at 8,760 hours/year, after control.

**Appendix A: Emissions Calculations
Emissions From Injection Molding Operations**

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 47710
Permit Number: 163-22999-00106
Reviewer: Julia Handley/EVP

PRODUCTION RATE	
I.D.	MAXIMUM CAPACITY (TON/HR)
53 Injection Molding Machines	18

MATERIAL RATE		
MATERIAL	MATERIAL USE* BY WEIGHT %	MATERIAL RATE (TON/HR)
Polypropylene	45.0%	8
Polyethylene	55.0%	10

EMISSIONS						
MATERIAL	POLLUTANT	EMISSION FACTOR (LB/TON)*	POTENTIAL EMISSIONS (TON/YEAR)**	CONTROL EFFICIENCY %	CONTROLLED EMISSIONS (POUNDS/HOUR)*	CONTROLLED EMISSIONS (TONS/YEAR)*
Polypropylene	VOC	0.382	13.64	0	3.11	13.64
	PM	2.8	99.99	98.00%	0.46	2.00
	Total HAP from Polypropylene	0.01072	0.38	0.00%	0.09	0.38
Polyethylene	VOC	0.0614	2.68	0	0.61	2.68
	PM	1.46	63.72	98.00%	0.29	1.27
	HAP	0.00034	0.01	0.00%	0.00	0.01

*Material use ratios specified in Process Design as 55% polyethylene and 45% polypropylene.

**The cyclone dust control system is considered integral to the injection molding operations, therefore uncontrolled pte is equal to controlled pte for PM.

METHODOLOGY

Potential Emission= Emission Factor * Material Rate * 8760 /2000

Controlled Emission= Emission Factor * Material Rate * 8760 / 2000 * (1 - control Efficiency)

Dust collector on plastic transfer and storage controls 98% of dust.

Polyethylene usage is High Density Polyethylene with an emission factor of 0.0614 lbs voc per ton resin

Polypropylene usage is 80% reactor impact copolymer at a temperature of 505 F and 20% controlled rheology homopolymer (with Antistat)

The weighted Polypropylene emission factor is 80% (80.3 lbs VOC per million pound resin) + 20%(191 lbs voc per million pounds resin)=0.2049 lbVOC / ton resin

(1) Polypropylene copolymer processing source, Battelle Institute study published in the Journal of Air and Waste Management (JAWMA) -January 1999

(2) Polyethylene copolymer processing source Barlow, Conlos, Holden, Garrison, Harris and Janke -JAWMA- June 1996

**Appendix A: Emissions Calculations
Emissions From Thermoforming Operations**

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 47710
Permit Number: 163-22999-00106
Reviewer: Julia Handley/EVP

PRODUCTION RATE	
I.D.	ANUAL RATE (TON/HR)
7 Thermoforming Machines	14

MATERIAL RATE		
MATERIAL	MATERIAL USE BY WEIGHT %	ANNUAL MATERIAL RATE (TON/HR)
Polypropylene	94.5%	13
Polystyrene	5.5%	1

EMISSIONS						
MATERIAL	POLLUTANT	EMISSION FACTOR (LB/TON)	POTENTIAL UNCONTROLLED EMISSIONS (TON/YEAR)*	CONTROL EFFICIENCY %	CONTROLLED EMISSIONS (POUNDS/HOUR)	CONTROLLED EMISSIONS (TONS/YEAR)*
Polypropylene	VOC	0.16	9.11	0	2.08	9.11
	PM	2.80	158.76	98.00%	0.72	3.18
	HAP	0.00	0.16	0.00%	0.04	0.16
Polystyrene	VOC	0.12	0.41	0	0.09	0.41
	PM	1.46	4.82	98.00%	0.02	0.10
	HAP	0.10	0.34	0.00%	0.08	0.34

*The cyclone dust control system is considered integral to the thermoforming operations, therefore uncontrolled pte is equal to controlled pte for PM.

METHODOLOGY

Potential Emission= Emission Factor * Material Rate * 8760 / 2000

Controlled Emission= Emission Factor * Material Rate * 8760 / 2000 * (1 - control Efficiency)

Dust collector on plastic transfer and storage controls 98% of dust.

(1) Polypropylene copolymer processing source, Battelle Institute study published in the Journal of Air and Waste Management (JAWMA) -January 1999

(2) Polyethylene copolymer processing source Barlow, Conlos, Holden, Garrison, Harris and Janke -JAWMA- June 1996

**Appendix A: Emissions Calculations
Emissions From Thermoforming Operations**

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 4
Permit Number: 163-22999-00106
Reviewer: Julia Handley/EVP

Emission Unit	Maximum Capacity (lb/hr)	Emission Factor	Emission Factor (lb/ton)	Source of Emission Factor	Control Efficiency %	Potential Emissions					
						PM (Tons/Year)	PM10 (Tons/Year)	SOx (Tons/Year)	NOx (Tons/Year)	VOC (Tons/Year)	CO (Tons/Year)
Multi-Layer Extrusion Line 1	Extruder 1	508.00	VOC-ethylene	0.0706	1						
	Regrind - LDPE @ 500 deg F		PM-ethylene	1.46	AP-42	98%					
	SCC 30101802, 30101811										
	Extruder 2	294.00	VOC-ethylene	0.0706	1		0.9400	0.9400	0.0000	0.0000	0.0455
	Polyethylene - LDPE @ 500 deg F		PM-ethylene	1.46	AP-42	98%					
	SCC 30101812, 30101811										
	Extruder 3	294.00	VOC-ethylene	0.0706	1		0.9400	0.9400	0.0000	0.0000	0.0455
	Polyethylene - LDPE @ 500 deg F		PM-ethylene	1.46	AP-42	98%					
	SCC 30101812, 30101811										
	Extruder 4	75.00	VOC-ethylene	0.0706	1		0.2398	0.2398	0.0000	0.0000	0.0116
Tie - LLDPE @ 500 Deg F		PM-ethylene	1.46	AP-42	98%						
SCC 30101812, 30101811											
Extruder 5	60.00	VOC-ethylene	0.0706	1		0.1918	0.1918	0.0000	0.0000	0.0093	
EVOH - LDPE @ 500 deg F		PM-ethylene	1.46	AP-42	98%						
SCC 30101812, 30101811											
Total						3.9360	3.9360	0.0000	0.0000	0.1903	0.0000

Potential VOC Emissions = (Maximum Capacity (lb)) / 2000 *(Emission Factor)* 8760 hrs/yr / 2000 lb/ton

Dust Collector on plastic transfer and storage controls 98% of dust.

Polyethylene emission factor is worst case Low Density Polyethylene extrusion coating at 500 degrees F. which is 35 lb VOC per million lb resin (0.0706 lbs VOC per Ton Resin)

1. Polyethylene copolymer processing source Barlow, Conlos, Holdren, Garrison, Harris and Janke-JAWMA-June 1996

**Appendix A: Emissions Calculations
VOC from Printing**

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 47710
Permit Number: 163-22999-00106
Reviewer: Julia Handley/EVP

FACILITY	INK ID.	MAXIMUM INK USE (lb/hr)	Weight % Volatiles	Flash Off %	VOC Emissions (TONS/YEAR)
38 Flexographic Ultraviolet Cure Ink Printers	Sun Chemicals Energy Cured UV Ink INKCV5481170	47	1%	100.00%	2.07
10 Station Ultraviolet Cure Ink Gallus Printer line	Water Ink Technologies UV Curable Ink RVG001212	110.59	0.00%	100.00%	0.00
6 Screen Printing Machines	Nazdar Poly All Scrrre Printing Ink PA70 Black	0.20	59%	100.00%	0.52

Total emissions from Printing Opeartions

2.59 Tons VOC per year

METHODOLOGY

VOC = Weight percentage volatiles (water minus organics) * Flash off * Max Ink Use * 8760 / 2000 = Tons per Year

Weight % VOC in Ultraviolet Ink Specified in MSDS as less than 1%. 1% Voc assumption is worst case.

NOTE: HEAT SET OFFSET PRINTING HAS A FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Inks used in silk screen machines are polyall or 7900 series color gloss screen inks. Ink shown above represents worst case VOC emissions

Weight % VOC from supplied by source from MSDS.

Appendix A: Emissions Calculations
Worst Case VOC Emissions from Cleaning Processes

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 47710
Permit Number: 163-22999-00106
Reviewer: Julia Handley/EVP

FACILITY	MATERIAL	MAX MATERIAL USE (lb/hr)	WEIGHT % VOC	Flash off %	Potential VOC (Tons/year)
Solvent Parts Washer 1	Blend 8	0.47	100%	100.0%	2.04
Cleaning of Molders	BP627	2.70	100%	100.0%	11.82
Cleaning of Printers	Blend 2279	11.29	50%	100.0%	24.72
Cleaning of Printers	Flexowash	0.29	5%	100.0%	0.06

METHODOLOGY

VOC = Weight percentage volatiles (water minus organics) * Flash off * Max Ink Use * 8760 / 2000 = Tons per Year

(1) Worst case assumption: max potential solvent use = VOC emission

(2) Worst case assumption: max HAP content of max potential solvent use = HAP emission

Weight % VOC from supplied by source from MSDS.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boilers for

UV and silk screen printing

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 4771
Permit Number: 163-22999-00106
Plt ID: 163-00106
Reviewer: JH/EVP

Heat Input Capacity
MMBtu/hr

2.3

Potential Throughput
MMCF/yr

20.4

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Potential Emission in tons/yr	7.6	7.6	0.6	100.0	5.5	84.0
	0.08	0.08	0.01	1.02	0.06	0.86

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Small Boilers
 HAPs Emissions**

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville, IN 4771
Permit Number: 163-22999-00106
Reviewer: Julia Handley/EVP

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.142E-05	1.224E-05	7.650E-04	0.02	3.468E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.100E-06	1.122E-05	1.428E-05	3.876E-06	2.142E-05

Combined HAPS 0.02 tons per year

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
HAP Emissions - Injection Molding, Thermoforming & Cleaning of I

Company Name: Berry Plastics
Address City IN Zip: 101 Oakley Street, Evansville,
Permit Number: 163-22999-00106
Reviewer: Julia Handley/EVP

Berry Plastics - Potential HAP Emissions

Emission Unit	Maximum Capacity (lb/hr)	Emission Factor	Emission Factor (%)	Potential HAP Emissions											Total HAPS (Tons/Year)	
				Formaldehyde (Tons/Year)	Acrolein (Tons/Year)	Acetaldehyde (Tons/Year)	Propionaldehyde (Tons/Year)	Acrylic Acid (Tons/Year)	Ethyl Benzene (Tons/Year)	Styrene (Tons/Year)	Acetophenone (Tons/Year)	Xylene (Tons/Year)	Napthalene (Tons/Year)	1,2,4 Trimethylbenzene (Tons/Year)		
Injection Molding Machines	16,305.51	Formaldehyde	1.3	0.0928	0.0100	0.0379	0.2364	0.0057	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.3828
Polypropylene		Acrolein	0.14													
		Acetaldehyde	0.53													
Controlled Rheology homopolymer with antistat		Propionaldehyde	3.31													
		Acrylic Acid	0.08													
		TOTAL	5.36													
Injection Molding Machines	19,928.96	Formaldehyde	0.06	0.0052	0.0017	0.0044	0.0017	0.0017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0148
Polyethylene		Acrolein	0.02													
High Density (HDPE)		Acetaldehyde	0.05													
		Propionaldehyde	0.02													
		Acrylic Acid	0.02													
		TOTAL	0.17													
Thermoforming Line 1-6	25,890.41	Formaldehyde	0.18	0.0204	0.0011	0.0227	0.1077	0.0091	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1610
Polypropylene		Acrolein	0.01													
		Acetaldehyde	0.2													
Controlled Rheology homopolymer with antistat		Propionaldehyde	0.95													
		Acrylic Acid	0.08													
		TOTAL	1.42													
Thermoforming Line 7	1,506.85	Ethyl Benzene	6.1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0403	0.2924	0.0046	0.0000	0.0000	0.0000	0.0000	0.3394
		Styrene	44.3													
		Acetophenone	0.7													
		TOTAL	51.43													
Extruders 1-5	1,231.00	Formaldehyde	0.06	0.0003	0.0001	0.0003	0.0001	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0009
		Acrolein	0.02													
		Acetaldehyde	0.05													
		Propionaldehyde	0.02													
		Acrylic Acid	0.02													
		TOTAL	0.17													
UV Cure Ink Printers	47.26	TOTAL	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Screen printing	0.20	Xylene	0.07	0.0622	0.0444	0.0000	0.0000	0.0000	0.0044	0.0000	0.0000	0.0622	0.0444	0.0000	0.0000	0.1111
		Napthalene	0.05													
PA11 Polyall Extra or White		Ethyl Benzene	0.01													
		TOTAL	0.13													
Solvent Parts Washer 1	0.47	TOTAL	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cleaning of Molders BP627	2.70	Xylene	0.26	0.0000	0.0000	0.0000	0.0000	0.0000	0.7092	0.0000	0.0000	3.0732	0.0000	2.8368	0.0000	6.8201
		1,2,4 Trimethylbenzene	0.24													
		Ethylbenzene	0.06													
		TOTAL	0.58													
Cleaning of Printers	11.29	TOTAL	0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total				0.1810	0.0574	0.0652	0.3460	0.0166	0.7539	0.2924	0.0046	3.1354	0.0444	2.8368	7.8302	

Potential HAP Emissions = (Maximum Capacity (lb/hr))*(Emission Factor)*8760/2000

Resin usage is 55% polyethylene and 45% Polypropylene.

Injection Molding Systems

- (1) Polypropylene copolymer processing source, Battelle Institute study published in the Journal of Air and Waste Management Association (JAWMA)-January 1999
- (2) Polyethylene copolymer processing source Barlow, Conlos, Holdren, Garrison, Harris and Janke-JAWMA-June 1996

Thermoformer Systems

- (3) Polypropylene copolymer processing source, Battelle Institute study published in the Journal of Air and Waste Management Association (JAWMA)-January 1999
- (4) Polyethylene copolymer processing source Barlow, Conlos, Holdren, Garrison, Harris and Janke-JAWMA-June 1996

Screen Printing emission calculations

HAP emission based on use of worst case ink
 maximum capacity(ton/year) = maximum capacity (gallons of ink/year) * density of ink /2000 lbs/ton = 214.44 gal/yr *11.1 lb/gal / 2000 lb/ton=1.1884 tons
 potential Hap emission= maximum capacity (ton/year) * emission factor

Cleaning Processes

- (1) Worst case assumption: max potential solvent use = VOC emission
- (2)Worst case assumption: max hap content of max potential solvent use = HAP emission
 Weight % VOC from supplied by source from MSDS,