

Synthetic Minor Determination and/or  Netting Determination

Permit To Install 08-04571

**A. Source Description**

BK Plastics is located in Covington, Ohio (Miami County) and is in the process of installing a six color flexographic printing press (Emissions Unit K001). The flexographic press will be used to print images on the plastic bags that BK Plastics manufactures.

The inks to be used at BK Plastics are all solvent based inks, some of which contain minute quantities of HAPs. The HAPs content of the inks is low enough to limit potential HAP emissions well below major source levels (less than 0.5 TPY).

**B. Facility Emissions and Attainment Status**

BK Plastics is located in Miami County, is in attainment with NAAQS for ozone. According to the PTI application submitted by BK Plastics they will use a maximum of 13,761 gallons per year of ink and 4,899 gallons per year of thinner, the actual operating schedule is 3,744 hours per year (6 days per week, 12 hours per day). Based on these parameters, the emissions calculations were performed using hourly usage rates of 3.68 gallons of ink and 1.31 gallons of thinner. Using the worst case ink (highest VOC concentration, 4.23 lbs VOC/gallon) and thinner to be used, actual annual VOC emissions were calculated to be 24.25 lbs/hour and 45.3 TPY. Potential annual VOC emissions at 8,760 hours per year are 175 TPY.

**C. Source Emissions**

In order to determine if the estimated annual maximum volume of ink and thinner used would exceed 148 TPY ink use restriction in OAC rule 3745-21-09(Y)(2), the ink with the highest ink density (10.82 lbs/gallon) was multiplied by 13,761 gallons per year and added to the same calculation for the thinner (6.63 lbs/gallon x 4,899 gallons per year) for a total of 90.7 TPY. In order to allow for growth and operational flexibility the annual use volumes were multiplied by 50 percent to allow for the use of up to 20,641 gallons of ink and 7,349 gallons of thinner and adds up to 136.5 TPY.

The ink use restrictions imposed to comply with the ink use restriction of OAC rule 3745-21-09(Y)(2) will also limit VOC emissions to less than 100 TPY. The annual allowable VOC emissions limit (68.0 TPY) in the permit are based on the worst case VOC content for the inks and thinner ((20,641 gallons ink x 4.23 lbs VOC/gallon) + (7,349 gallons thinner x 6.63 lbs VOC/gallon). In order to simplify the record keeping requirements the short term emissions limits were established as 4.66 pounds VOC/gallon ink as applied (82% ink:18% thinner) and 436 pounds of VOC per day (7.88 gallons/hour x 4.66 pounds VOC/gallon x 12hours/day).

**D. Conclusion**

The ink use restrictions imposed to comply with the ink use restriction of OAC rule 3745-21-09(Y)(2) will also limit VOC emissions to less than 100 TPY. The annual allowable VOC emissions limit (68.0 TPY) in the permit are based on the worst case VOC content for the inks and thinner ((20,641 gallons ink x 4.23 lbs VOC/gallon) + (7,349 gallons thinner x 6.63 lbs VOC/gallon). Therefore, BK Plastics will operate as a synthetic minor source with regard to Title V permitting requirements.



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Lazarus Gov.  
Center

**RE: DRAFT PERMIT TO INSTALL  
MIAMI COUNTY**

**CERTIFIED MAIL**

**Application No: 08-04571**

**DATE: 4/22/2004**

BK Plastics Inc  
Robert Robbins  
P O Box 250  
Covington, OH 453180250

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$400** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

RAPCA

Miami Valley Regional Planning Commission

IN

**MIAMI COUNTY**

**PUBLIC NOTICE**  
**ISSUANCE OF DRAFT PERMIT TO INSTALL 08-04571 FOR AN AIR CONTAMINANT SOURCE FOR**  
**BK PLASTICS INC**

On 4/22/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **BK Plastics Inc**, located at **1400 Mote Dr, Covington**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 08-04571:

**6-color flexographic printing press.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

John Paul, Regional Air Pollution Control Agency, 117 South Main Street, Dayton, OH 45422-1280  
[(937)225-4435]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 08-04571**

Application Number: 08-04571  
APS Premise Number: 0855050532  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: BK Plastics Inc  
Person to Contact: Robert Robbins  
Address: P O Box 250  
Covington, OH 453180250

Location of proposed air contaminant source(s) [emissions unit(s)]:

**1400 Mote Dr  
Covington, Ohio**

Description of proposed emissions unit(s):

**6-color flexographic printing press.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Director

**BK Plastics Inc**

**Facility ID: 0855050532**

**PTI Application: 08-04571**

**Issued: To be entered upon final issuance**

**Part I - GENERAL TERMS AND CONDITIONS**

**A. Permit to Install General Terms and Conditions**

**1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

**4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any

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information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**7. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**8. Termination of Permit to Install**

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

**9. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

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and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

**10. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

**11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**12. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule

**BK Plastics Inc**

**Facility ID: 0855050532**

**PTI Application: 08-04571**

**Issued: To be entered upon final issuance**

3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

**14. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**15. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

**B. Permit to Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)**  
**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	68.0

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - Six color flexographic printing press	OAC rule 3745-31-05(A)(3)	The Volatile Organic Compound (VOC) emissions from this emissions unit shall not exceed 436 pounds per day.  See Section A.2.a.
	OAC rule 3745-35-07(B) (synthetic minor to avoid Title V)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-35-07(B).  The VOC emissions from this emissions unit shall not exceed 68.0 TPY on a 365 day rolling basis.
	OAC rule 3745-21-09(Y)(2)(b)	See Section A.2.a.

**2. Additional Terms and Conditions**

- 2.a The combined weight of ink and thinner use in this emissions unit shall not exceed 136 tons per year, and therefore the printing press is exempt from the requirements of OAC rule 21-09(Y)(1), per OAC rule 3745-21-09(Y)(2)(b).

**B. Operational Restrictions**

- 1. The VOC content of the inks used in this emissions unit shall not exceed 4.86 pounds of VOC per

**BK PI****PTI A**Emissions Unit ID: **K001****Issued: To be entered upon final issuance**

gallon of ink, as applied.

2. The maximum ink and thinner usage for this emissions unit shall not exceed 89.7 gallons per day.
3. The maximum ink and thinner usage for this emissions unit shall not exceed 27,990 gallons based upon a rolling 365-day summation.

**C. Monitoring and/or Record keeping Requirements**

1. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the name and identification number of each ink and thinner applied;
  - b. the volume, in gallons, of each ink and thinner applied;
  - c. the VOC content of each ink and thinner, in pounds of VOC per gallon of ink, as applied;
  - d. the total VOC emissions from all inks and thinners applied, in pounds per day, for this emissions unit, i.e., the sum of the products of "b" times "c" for each ink and thinner;
  - e. the VOC emissions from all inks and thinners applied, in tons per rolling 365-day period for this emissions unit, i.e., the sum of "d" for the day of record and the previous 364 days, or for the number of days since start-up; and
  - f. the total gallons of ink and thinner applied on a rolling 365-day basis, i.e., the sum of "b" for the date of record and the previous 364 days or for the number of days since start-up.
2. The permittee shall collect and record the following information at the end of each year for the purpose of determining annual OC emissions and for reporting requirements:
  - a. the total annual ink and thinner usage from January 1 to December 31, in gallons; and
  - b. the total VOC emissions from all inks and thinners applied, in tons per year.
3. The permit to install for this emissions unit K001 was evaluated based on the actual materials (ink and thinner) employed, and the design parameters of the emissions units exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level

**BK Plastics Inc****PTI A****Issued****Facility ID: 0855050532**Emissions Unit ID: **K001**

concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarized the results of the modeling for the "worst-case" pollutant(s).

Pollutant: Ethyl alcohol

TLV(mg/m<sup>3</sup>): 1,884,254

Maximum Hourly Emission Rate (lbs/hr): 22.1

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m<sup>3</sup>): 2,012

MAGLC( ug/m<sup>3</sup>): 18,843

Physical changes to or changes in the method of operation of the emissions unit after its installation could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the Permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of the new materials, that would result in the emission of a compound with a lower Threshold Limit Value(TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)", than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior

**BK PI****PTI A**Emissions Unit ID: **K001****Issued: To be entered upon final issuance**

to the change.

4. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
  - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**BK PI****PTI A**Emissions Unit ID: **K001****Issued: To be entered upon final issuance****D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. each day in which the 436 pounds of VOC per day limit was exceeded for this emissions unit;
  - b. each day in which the combined ink and thinner usage in this emissions unit exceeded 89.7 gallons per day;
  - c. each day in which the VOC content of the inks used in this emissions exceed 4.86 pounds of VOC per gallon of ink, as applied;
  - d. following the first 365 days of operation, each day in which the rolling 365-day ink and thinner usage limitation of 27,990 gallons was exceeded as recorded in Section C.1.f; and
  - e. following the first 365 days of operation, each day in which the rolling 365-day VOC emissions limitation of 68 tons was exceeded as recorded in Section C.1.e.

The quarterly deviation (excursion) reports shall be submitted as specified in Section A.2.b of the General Terms and Conditions.

2. The permittee shall submit annual reports to the Director (the Regional Air Pollution Control Agency) for this emissions unit that specify:
  - b. the total annual ink and thinner usage for the calendar year, in tons; and
  - b. the total VOC emissions, in tons, from all inks and thinners, as applied.

These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation -  
The VOC emissions from this emissions unit shall not exceed 436 pounds per day.

**BK Plastics Inc**

**PTI A**

**Issued**

**Facility ID: 0855050532**

**Emissions Unit ID: K001**

Applicable Compliance Method -

Compliance shall be based upon record keeping, as specified in Section C.1.

**BK PI****PTI A**Emissions Unit ID: **K001****Issued: To be entered upon final issuance**

- b. Emission Limitation -  
The VOC emissions from this emissions unit shall not exceed 68.0 TPY on a rolling 365-day basis.

Applicable Compliance Method -  
Compliance shall be based upon record keeping, as specified in Sections C.1.

- c. Emission Limitation -  
4.86 lbs VOC/gallon of ink as applied

Compliance shall be based upon the records maintained as required in Sections C.1. If required, USEPA Methods 24 and 24A shall be used to determine the VOC contents for flexographic printing inks and related coatings, respectively. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

**F. Miscellaneous Requirements**

None