☒ **Synthetic Minor Determination and/or** ☐ **Netting Determination**

Permit To Install 15-01429

A. Source Description

K008 is a 1-8 color flexographic printing press used to print on flexible substrates. The Company ID is Buckeye Flexographic Press #8.

B. Facility Emissions and Attainment Status

Buckeye Packaging Company, Inc. manufactures plastic bags and then prints on these bags. There are presently six (6) permitted emissions units at this facility, and they are all flexographic printing presses (K001, K003-K007). (Note: K002 was recently permanently shut down and K008 will replace K003.) PTI 15-01316 was issued as a Synthetic Minor PTI, which limited the OC emissions from emissions units K001, K003-K007 to no more than 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions.

C. Source Emissions

This emissions unit has the PTE of 63.9 tons OC/yr. If no restrictions were taken on the PTE, the total facility PTE of OC emissions would be 119.1 TPY (63.9 TPY + 55.2 TPY), which would exceed the Title V threshold of 100 TPY. It is accepting the group limit for OC emissions from emissions units K001, K004-K008 of no more than 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. The PTE for individual HAPs for the entire facility is 41.28 tons/yr because of the methanol found in versaflex ink.

D. Conclusion

The PTE from the entire facility will be the following after this PTI is issued;
55.2 tons OC/yr;
9.9 tons/yr of individual HAPs; and
24.9 tons/yr of total combined HAPs.

All of these limits are below Title V levels so this facility will avoid Title V.

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: DRAFT PERMIT TO INSTALL
STARK COUNTY
Application No: 15-01429

DATE: 10/31/2000

CERTIFIED MAIL

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

Buckeye Packaging Co Inc
Gordon Fox
PO Box 996 12223 Marlboro Avenue
Hartville, OH 44632

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 of 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 **$900** 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,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA **Canton LAA** **WV** **PA**
Stark Cty Area Trans Study

DRAFT PERMIT TO INSTALL 15-01429

Application Number:	15-01429
APS Premise Number:	1576011509
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	Buckeye Packaging Co Inc
Person to Contact:	Gordon Fox
Address:	PO Box 996 12223 Marlboro Avenue Hartville, OH 44632

Location of proposed air contaminant source(s) [emissions unit(s)]:
12223 Marlboro Ave
Marlboro Twp, **Ohio**

Description of proposed emissions unit(s):
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

_____
Director

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 Related to Monitoring and Recordkeeping 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 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 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 are inadequate 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 prove to be inadequate 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 application must be made to the Director for the installation or modification of any other emissions unit(s).

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

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 thirty (30) days after commencing operation of the emissions unit(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

Pollutant	Tons Per Year
OC	**55.2**
Ind. HAP	**9.9**
Total HAPs	**24.9**

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
K001 - Printing Press 1-6 color flexographic printing press used to print on flexible substrates; Buckeye Flexographic Press #4 (Modification replacing PTI 15-1316)	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 100 pounds/hour and 55.2 tons/year. The total water-based ink usage for emissions units K001, K004, K005, K006, K007 and K008 shall consist of at least 60% of the overall ink usage on a monthly basis. See section 2.c. below.
	OAC rule 3745-35-07(B)	The combined emissions of OC from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. See sections 2.a. and 2.b below.
	OAC rule 3745-21-09(Y)	Any printing line that is located at a facility in which the total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines is less than or equal to 148 tons/year is exempt from this rule.

2. Additional Terms and Conditions

2.a The combined annual emissions from the entire facility (K001, K004-K008) shall not exceed the following as rolling 12-month summations:

24.9 tons of all hazardous air pollutants (HAP); and

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9.9 tons of any individual HAP.

2.b This allowable includes any solvent used to make the ink press ready and for press parts and worker cleanup. The permittee has existing records (from the past year) that demonstrate compliance with the restricted OC and HAPs emissions of this PTI; therefore, month-to-month limitations are not needed for the first 12 months after issuance of this permit.

2.c A water-based ink shall be defined as an ink in which the organic compound content of the volatile matter is less than 25% of the total volume of the volatile matter in the ink (prior to the addition of any thinning solvents). Compliance with this term shall be determined by calculating the gallons (prior to the addition of any thinning solvents) of the solvent-based ink used per month as a percentage of the sum of the gallons of solvent-based inks (prior to the addition of any thinning solvents) and the gallons of water-based ink (prior to the addition of any solvents) per month.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for emissions units K001, K004, K005, K006, K007 and K008 (records do not have to be maintained for individual presses):

   a. the company identification for each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   b. the number of gallons of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   c. the organic compound content of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   d. the total OC emissions from all ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity, in pounds or tons;

   e. the water content of any ink employed (prior to the addition of any thinning solvents);

   f. the individual HAP content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;

   g. the total combined HAP content of each coating, in pounds of combined HAPs per gallon of coating, as applied (sum all individual HAP contents from (f));

   h. the individual HAP content for each HAP of each cleanup solvent, in pounds of individual

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HAP per gallon of cleanup solvent, as applied;

i. the total combined HAP content of each cleanup solvent, in pounds of combined HAPs per gallon of cleanup solvent, as applied (sum all individual HAP contents from (h));

j. the individual HAP content for each HAP of each solvent added to maintain viscosity, in pounds of individual HAP per gallon of solvent added to maintain viscosity, as applied;

k. the total combined HAP content of each solvent added to maintain viscosity, in pounds of combined HAPs per gallon of solvent added to maintain viscosity, as applied (sum all individual HAP contents from (i));

l. the total individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

m. the total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

n. the rolling, 365-day summation of the total OC emissions from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per year;

o. the rolling, 12-month summation of individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

p. the rolling, 12-month summation of total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

q. a calculation of the percentage of inks employed that are water-based inks (see section A.2.b.); and

r. the total tons of ink used. (This shall include any initial thinning solvents, including water, used to get the ink press ready. It shall not include any solvents used to maintain viscosity.)

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 365-day emission limitation for OC;

b. all exceedances of the rolling, 12-month facility emission limitation for individual HAPs and combined HAPs;

c. an identification of each month that showed a violation of the limit of no more than 40% of the gallons of inks employed can be solvent-based inks and the actual percentage of solvent-based inks employed for each such month; and

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d. an identification of any year in which the annual ink usage exceeds a total of 148 tons from all emissions units at this facility. This ink usage shall include any initial thinning solvents, including water, used to make the ink press ready. It shall not include any solvents used to maintain viscosity.

2. The permittee shall submit an annual report that specifies the total organic compound emissions rate from emissions units K001, K004, K005, K006, K007 & K008 for each month of the previous calendar year. The permittee shall also submit an annual report that specifies the tons of ink and coatings employed at this facility in all flexographic, packaging rotogravure and publication rotogravure printing lines during the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I. of these terms and conditions shall be determined in accordance with the following methods(s):

a. Emission Limitation:
Organic compound emissions shall not exceed 100 pounds/hour.

Applicable Compliance Method:
This limit was based on a one-time calculation of the maximum emissions that can be generated by this emissions unit.

b. Emission Limitation:
Organic compound emissions shall not exceed 55.2 tons/year**.**

Applicable Compliance Method:
K001, K004, K005, K006, K007 and K008 are limited to a total of 55.2 tons OC emissions per year. Compliance with this limit will ensure compliance with the 55.2 tons OC/yr limit for K008.

c. Emission Limitation:
Requirement that at least 60% of the inks used in emissions units K001, K004, K005, K006, K007 and K008 be water-based inks.

Applicable Compliance Method:
Recordkeeping

d. Emission Limitation:
The total OC emissions from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons/year, based upon a rolling, 365-day summation of the OC emissions.

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Applicable Compliance Method:
Daily records shall be maintained of the OC contents of all coatings, cleanup solvents and solvents used to maintain viscosity employed, the daily usage of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated daily total OC emission rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility. The mass of organic compounds per volume of each coating shall be determined in accordance with the procedures in OAC rule 3745-21-10(B) and OAC rule 3745-21-04(B)(5). The OC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall 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.

e. Emission Limitation
The combined annual HAPs emissions from the entire facility (K001 and K004-K008) shall not exceed 24.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

f. Emission Limitation
The annual individual HAP emissions from the entire facility (K001 and K004-K008) shall not exceed 9.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

F. Miscellaneous Requirements

1. This permit to install shall supersede all of the air pollution control requirements for these emissions units previously contained in permit to install number 15-01316, as modified on April 19, 2000.

2. The following terms and conditions are federally enforceable: A. B, C.1, D, and E.

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
K004 - Printing Press 2 color flexographic printing press used to print on flexible substrates; Buckeye Flexographic Press #3 (Modification replacing PTI 15-1316)	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 100 pounds/hour and 55.2 tons/year. The total water-based ink usage for emissions units K001, K004, K005, K006, K007 and K008 shall consist of at least 60% of the overall ink usage on a monthly basis. See section 2.c. below.
	OAC rule 3745-35-07(B)	The combined emissions of OC from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. See sections 2.a. and 2.b below.
	OAC rule 3745-21-09(Y)	Any printing line that is located at a facility in which the total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines is less than or equal to 148 tons/year is exempt from this rule.

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2. Additional Terms and Conditions

2.a The combined annual emissions from the entire facility (K001, K004-K008) shall not exceed the following as rolling 12-month summations:
24.9 tons of all hazardous air pollutants (HAP); and
9.9 tons of any individual HAP.

2.b This allowable includes any solvent used to make the ink press ready and for press parts and worker cleanup. The permittee has existing records (from the past year) that demonstrate compliance with the restricted OC and HAPs emissions of this PTI; therefore, month-to-month limitations are not needed for the first 12 months after issuance of this permit.

2.c A water-based ink shall be defined as an ink in which the organic compound content of the volatile matter is less than 25% of the total volume of the volatile matter in the ink (prior to the addition of any thinning solvents). Compliance with this term shall be determined by calculating the gallons (prior to the addition of any thinning solvents) of the solvent-based ink used per month as a percentage of the sum of the gallons of solvent-based inks (prior to the addition of any thinning solvents) and the gallons of water-based ink (prior to the addition of any solvents) per month.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for emissions units K001, K004, K005, K006, K007 and K008 (records do not have to be maintained for individual presses):

   a. the company identification for each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   b. the number of gallons of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   c. the organic compound content of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   d. the total OC emissions from all ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity, in pounds or tons;

   e. the water content of any ink employed (prior to the addition of any thinning solvents);

   f. the individual HAP content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;

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g. the total combined HAP content of each coating, in pounds of combined HAPs per gallon of coating, as applied (sum all individual HAP contents from (f));

h. the individual HAP content for each HAP of each cleanup solvent, in pounds of individual HAP per gallon of cleanup solvent, as applied;

i. the total combined HAP content of each cleanup solvent, in pounds of combined HAPs per gallon of cleanup solvent, as applied (sum all individual HAP contents from (h));

j. the individual HAP content for each HAP of each solvent added to maintain viscosity, in pounds of individual HAP per gallon of solvent added to maintain viscosity, as applied;

k. the total combined HAP content of each solvent added to maintain viscosity, in pounds of combined HAPs per gallon of solvent added to maintain viscosity, as applied (sum all individual HAP contents from (i));

l. the total individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

m. the total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

n. the rolling, 365-day summation of the total OC emissions from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per year;

o. the rolling, 12-month summation of individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

p. the rolling, 12-month summation of total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

q. a calculation of the percentage of inks employed that are water-based inks (see section A.2.b.); and

r. the total tons of ink used. (This shall include any initial thinning solvents, including water, used to get the ink press ready. It shall not include any solvents used to maintain viscosity.)

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 365-day emission limitation for OC;

b. all exceedances of the rolling, 12-month facility emission limitation for individual HAPs and combined HAPs;

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c. an identification of each month that showed a violation of the limit of no more than 40% of the gallons of inks employed can be solvent-based inks and the actual percentage of solvent-based inks employed for each such month; and

d. an identification of any year in which the annual ink usage exceeds a total of 148 tons from all emissions units at this facility. This ink usage shall include any initial thinning solvents, including water, used to make the ink press ready. It shall not include any solvents used to maintain viscosity.

2. The permittee shall submit an annual report that specifies the total organic compound emissions rate from emissions units K001, K004, K005, K006, K007 & K008 for each month of the previous calendar year. The permittee shall also submit an annual report that specifies the tons of ink and coatings employed at this facility in all flexographic, packaging rotogravure and publication rotogravure printing lines during the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I. of these terms and conditions shall be determined in accordance with the following methods(s):

a. Emission Limitation:
Organic compound emissions shall not exceed 100 pounds/hour.

Applicable Compliance Method:
This limit was based on a one-time calculation of the maximum emissions that can be generated by this emissions unit.

b. Emission Limitation:
Organic compound emissions shall not exceed 55.2 tons/year**.**

Applicable Compliance Method:
K001, K004, K005, K006, K007 and K008 are limited to a total of 55.2 tons OC emissions per year. Compliance with this limit will ensure compliance with the 55.2 tons OC/yr limit for K008.

c. Emission Limitation:
Requirement that at least 60% of the inks used in emissions units K001, K004, K005, K006, K007 and K008 be water-based inks.

Applicable Compliance Method:
Recordkeeping

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d. Emission Limitation:
The total OC emissions from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons/year, based upon a rolling, 365-day summation of the OC emissions.

Applicable Compliance Method:
Daily records shall be maintained of the OC contents of all coatings, cleanup solvents and solvents used to maintain viscosity employed, the daily usage of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated daily total OC emission rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility. The mass of organic compounds per volume of each coating shall be determined in accordance with the procedures in OAC rule 3745-21-10(B) and OAC rule 3745-21-04(B)(5). The OC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall 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.

e. Emission Limitation
The combined annual HAPs emissions from the entire facility (K001 and K004-K008) shall not exceed 24.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

f. Emission Limitation
The annual individual HAP emissions from the entire facility (K001 and K004-K008) shall not exceed 9.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

F. Miscellaneous Requirements

1. This permit to install shall supersede all of the air pollution control requirements for these emissions units previously contained in permit to install number 15-01316, as modified on April 19, 2000.

2. The following terms and conditions are federally enforceable: A. B, C.1, D, and E.

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
K005 - Printing Press 1-6 color flexographic printing press used to print on flexible substrates; Buckeye Flexographic Press #5 (Modification replacing PTI 15-1316)	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 100 pounds/hour and 55.2 tons/year. The total water-based ink usage for emissions units K001, K004, K005, K006, K007 and K008 shall consist of at least 60% of the overall ink usage on a monthly basis. See section 2.c. below.
	OAC rule 3745-35-07(B)	The combined emissions of OC from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. See sections 2.a. and 2.b below.
	OAC rule 3745-21-09(Y)	Any printing line that is located at a facility in which the total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines is less than or equal to 148 tons/year is exempt from this rule.

2. Additional Terms and Conditions

2.a The combined annual emissions from the entire facility (K001, K004-K008) shall not exceed the following as rolling 12-month summations:

24.9 tons of all hazardous air pollutants (HAP); and

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9.9 tons of any individual HAP.

2.b This allowable includes any solvent used to make the ink press ready and for press parts and worker cleanup. The permittee has existing records (from the past year) that demonstrate compliance with the restricted OC and HAPs emissions of this PTI; therefore, month-to-month limitations are not needed for the first 12 months after issuance of this permit.

2.c A water-based ink shall be defined as an ink in which the organic compound content of the volatile matter is less than 25% of the total volume of the volatile matter in the ink (prior to the addition of any thinning solvents). Compliance with this term shall be determined by calculating the gallons (prior to the addition of any thinning solvents) of the solvent-based ink used per month as a percentage of the sum of the gallons of solvent-based inks (prior to the addition of any thinning solvents) and the gallons of water-based ink (prior to the addition of any solvents) per month.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for emissions units K001, K004, K005, K006, K007 and K008 (records do not have to be maintained for individual presses):

   a. the company identification for each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   b. the number of gallons of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   c. the organic compound content of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   d. the total OC emissions from all ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity, in pounds or tons;

   e. the water content of any ink employed (prior to the addition of any thinning solvents);

   f. the individual HAP content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;

   g. the total combined HAP content of each coating, in pounds of combined HAPs per gallon of coating, as applied (sum all individual HAP contents from (f));

   h. the individual HAP content for each HAP of each cleanup solvent, in pounds of individual

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HAP per gallon of cleanup solvent, as applied;

i. the total combined HAP content of each cleanup solvent, in pounds of combined HAPs per gallon of cleanup solvent, as applied (sum all individual HAP contents from (h));

j. the individual HAP content for each HAP of each solvent added to maintain viscosity, in pounds of individual HAP per gallon of solvent added to maintain viscosity, as applied;

k. the total combined HAP content of each solvent added to maintain viscosity, in pounds of combined HAPs per gallon of solvent added to maintain viscosity, as applied (sum all individual HAP contents from (i));

l. the total individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

m. the total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

n. the rolling, 365-day summation of the total OC emissions from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per year;

o. the rolling, 12-month summation of individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

p. the rolling, 12-month summation of total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

q. a calculation of the percentage of inks employed that are water-based inks (see section A.2.b.); and

r. the total tons of ink used. (This shall include any initial thinning solvents, including water, used to get the ink press ready. It shall not include any solvents used to maintain viscosity.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 365-day emission limitation for OC;

b. all exceedances of the rolling, 12-month facility emission limitation for individual HAPs and combined HAPs;

c. an identification of each month that showed a violation of the limit of no more than 40% of the gallons of inks employed can be solvent-based inks and the actual percentage of solvent-based inks employed for each such month; and

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d. an identification of any year in which the annual ink usage exceeds a total of 148 tons from all emissions units at this facility. This ink usage shall include any initial thinning solvents, including water, used to make the ink press ready. It shall not include any solvents used to maintain viscosity.

2. The permittee shall submit an annual report that specifies the total organic compound emissions rate from emissions units K001, K004, K005, K006, K007 & K008 for each month of the previous calendar year. The permittee shall also submit an annual report that specifies the tons of ink and coatings employed at this facility in all flexographic, packaging rotogravure and publication rotogravure printing lines during the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I. of these terms and conditions shall be determined in accordance with the following methods(s):

a. Emission Limitation:
Organic compound emissions shall not exceed 100 pounds/hour.

Applicable Compliance Method:
This limit was based on a one-time calculation of the maximum emissions that can be generated by this emissions unit.

b. Emission Limitation:
Organic compound emissions shall not exceed 55.2 tons/year**.**

Applicable Compliance Method:
K001, K004, K005, K006, K007 and K008 are limited to a total of 55.2 tons OC emissions per year. Compliance with this limit will ensure compliance with the 55.2 tons OC/yr limit for K008.

c. Emission Limitation:
Requirement that at least 60% of the inks used in emissions units K001, K004, K005, K006, K007 and K008 be water-based inks.

Applicable Compliance Method:
Recordkeeping

d. Emission Limitation:
The total OC emissions from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons/year, based upon a rolling, 365-day summation of the OC emissions.

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Applicable Compliance Method:
Daily records shall be maintained of the OC contents of all coatings, cleanup solvents and solvents used to maintain viscosity employed, the daily usage of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated daily total OC emission rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility. The mass of organic compounds per volume of each coating shall be determined in accordance with the procedures in OAC rule 3745-21-10(B) and OAC rule 3745-21-04(B)(5). The OC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall 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.

e. Emission Limitation
The combined annual HAPs emissions from the entire facility (K001 and K004-K008) shall not exceed 24.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

f. Emission Limitation
The annual individual HAP emissions from the entire facility (K001 and K004-K008) shall not exceed 9.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

F. Miscellaneous Requirements

1. This permit to install shall supersede all of the air pollution control requirements for these emissions units previously contained in permit to install number 15-01316, as modified on April 19, 2000.

2. The following terms and conditions are federally enforceable: A. B, C.1, D, and E.

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
K006 - Printing Press 1-6 color flexographic printing press used to print on flexible substrates; Buckeye Flexographic Press #6 (Modification replacing PTI 15-1316)	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 100 pounds/hour and 55.2 tons/year. The total water-based ink usage for emissions units K001, K004, K005, K006, K007 and K008 shall consist of at least 60% of the overall ink usage on a monthly basis. See section 2.c. below.
	OAC rule 3745-35-07(B)	The combined emissions of OC from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. See sections 2.a. and 2.b below.
	OAC rule 3745-21-09(Y)	Any printing line that is located at a facility in which the total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines is less than or equal to 148 tons/year is exempt from this rule.

2. **Additional Terms and Conditions**

2.a The combined annual emissions from the entire facility (K001, K004-K008) shall not exceed the following as rolling 12-month summations:
24.9 tons of all hazardous air pollutants (HAP); and

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9.9 tons of any individual HAP.

2.b This allowable includes any solvent used to make the ink press ready and for press parts and worker cleanup. The permittee has existing records (from the past year) that demonstrate compliance with the restricted OC and HAPs emissions of this PTI; therefore, month-to-month limitations are not needed for the first 12 months after issuance of this permit.

2.c A water-based ink shall be defined as an ink in which the organic compound content of the volatile matter is less than 25% of the total volume of the volatile matter in the ink (prior to the addition of any thinning solvents). Compliance with this term shall be determined by calculating the gallons (prior to the addition of any thinning solvents) of the solvent-based ink used per month as a percentage of the sum of the gallons of solvent-based inks (prior to the addition of any thinning solvents) and the gallons of water-based ink (prior to the addition of any solvents) per month.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for emissions units K001, K004, K005, K006, K007 and K008 (records do not have to be maintained for individual presses):

   a. the company identification for each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   b. the number of gallons of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   c. the organic compound content of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   d. the total OC emissions from all ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity, in pounds or tons;

   e. the water content of any ink employed (prior to the addition of any thinning solvents);

   f. the individual HAP content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;

   g. the total combined HAP content of each coating, in pounds of combined HAPs per gallon of coating, as applied (sum all individual HAP contents from (f));

   h. the individual HAP content for each HAP of each cleanup solvent, in pounds of individual

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HAP per gallon of cleanup solvent, as applied;

i. the total combined HAP content of each cleanup solvent, in pounds of combined HAPs per gallon of cleanup solvent, as applied (sum all individual HAP contents from (h));

j. the individual HAP content for each HAP of each solvent added to maintain viscosity, in pounds of individual HAP per gallon of solvent added to maintain viscosity, as applied;

k. the total combined HAP content of each solvent added to maintain viscosity, in pounds of combined HAPs per gallon of solvent added to maintain viscosity, as applied (sum all individual HAP contents from (i));

l. the total individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

m. the total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

n. the rolling, 365-day summation of the total OC emissions from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per year;

o. the rolling, 12-month summation of individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

p. the rolling, 12-month summation of total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

q. a calculation of the percentage of inks employed that are water-based inks (see section A.2.b.); and

r. the total tons of ink used. (This shall include any initial thinning solvents, including water, used to get the ink press ready. It shall not include any solvents used to maintain viscosity.)

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 365-day emission limitation for OC;

b. all exceedances of the rolling, 12-month facility emission limitation for individual HAPs and combined HAPs;

c. an identification of each month that showed a violation of the limit of no more than 40% of the gallons of inks employed can be solvent-based inks and the actual percentage of solvent-based inks employed for each such month; and

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d. an identification of any year in which the annual ink usage exceeds a total of 148 tons from all emissions units at this facility. This ink usage shall include any initial thinning solvents, including water, used to make the ink press ready. It shall not include any solvents used to maintain viscosity.

2. The permittee shall submit an annual report that specifies the total organic compound emissions rate from emissions units K001, K004, K005, K006, K007 & K008 for each month of the previous calendar year. The permittee shall also submit an annual report that specifies the tons of ink and coatings employed at this facility in all flexographic, packaging rotogravure and publication rotogravure printing lines during the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I. of these terms and conditions shall be determined in accordance with the following methods(s):

a. Emission Limitation:
Organic compound emissions shall not exceed 100 pounds/hour.

Applicable Compliance Method:
This limit was based on a one-time calculation of the maximum emissions that can be generated by this emissions unit.

b. Emission Limitation:
Organic compound emissions shall not exceed 55.2 tons/year**.**

Applicable Compliance Method:
K001, K004, K005, K006, K007 and K008 are limited to a total of 55.2 tons OC emissions per year. Compliance with this limit will ensure compliance with the 55.2 tons OC/yr limit for K008.

c. Emission Limitation:
Requirement that at least 60% of the inks used in emissions units K001, K004, K005, K006, K007 and K008 be water-based inks.

Applicable Compliance Method:
Recordkeeping

d. Emission Limitation:
The total OC emissions from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons/year, based upon a rolling, 365-day summation of the OC emissions.

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Applicable Compliance Method:
Daily records shall be maintained of the OC contents of all coatings, cleanup solvents and solvents used to maintain viscosity employed, the daily usage of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated daily total OC emission rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility. The mass of organic compounds per volume of each coating shall be determined in accordance with the procedures in OAC rule 3745-21-10(B) and OAC rule 3745-21-04(B)(5). The OC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall 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.

e. Emission Limitation
The combined annual HAPs emissions from the entire facility (K001 and K004-K008) shall not exceed 24.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

f. Emission Limitation
The annual individual HAP emissions from the entire facility (K001 and K004-K008) shall not exceed 9.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

F. Miscellaneous Requirements

1. This permit to install shall supersede all of the air pollution control requirements for these emissions units previously contained in permit to install number 15-01316, as modified on April 19, 2000.

2. The following terms and conditions are federally enforceable: A. B, C.1, D, and E.

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
K007 - Printing Press 1-6 color flexographic printing press used to print on flexible substrates; Buckeye Flexographic Press #7 (Modification replacing PTI 15-1316)	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 100 pounds/hour and 55.2 tons/year. The total water-based ink usage for emissions units K001, K004, K005, K006, K007 and K008 shall consist of at least 60% of the overall ink usage on a monthly basis. See section 2.c. below.
	OAC rule 3745-35-07(B)	The combined emissions of OC from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. See sections 2.a. and 2.b below.
	OAC rule 3745-21-09(Y)	Any printing line that is located at a facility in which the total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines is less than or equal to 148 tons/year is exempt from this rule.

2. **Additional Terms and Conditions**

2.a The combined annual emissions from the entire facility (K001, K004-K008) shall not exceed the following as rolling 12-month summations:
24.9 tons of all hazardous air pollutants (HAP); and

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9.9 tons of any individual HAP.

2.b This allowable includes any solvent used to make the ink press ready and for press parts and worker cleanup. The permittee has existing records (from the past year) that demonstrate compliance with the restricted OC and HAPs emissions of this PTI; therefore, month-to-month limitations are not needed for the first 12 months after issuance of this permit.

2.c A water-based ink shall be defined as an ink in which the organic compound content of the volatile matter is less than 25% of the total volume of the volatile matter in the ink (prior to the addition of any thinning solvents). Compliance with this term shall be determined by calculating the gallons (prior to the addition of any thinning solvents) of the solvent-based ink used per month as a percentage of the sum of the gallons of solvent-based inks (prior to the addition of any thinning solvents) and the gallons of water-based ink (prior to the addition of any solvents) per month.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for emissions units K001, K004, K005, K006, K007 and K008 (records do not have to be maintained for individual presses):

   a. the company identification for each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   b. the number of gallons of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   c. the organic compound content of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   d. the total OC emissions from all ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity, in pounds or tons;

   e. the water content of any ink employed (prior to the addition of any thinning solvents);

   f. the individual HAP content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;

   g. the total combined HAP content of each coating, in pounds of combined HAPs per gallon of coating, as applied (sum all individual HAP contents from (f));

   h. the individual HAP content for each HAP of each cleanup solvent, in pounds of individual

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HAP per gallon of cleanup solvent, as applied;

i. the total combined HAP content of each cleanup solvent, in pounds of combined HAPs per gallon of cleanup solvent, as applied (sum all individual HAP contents from (h));

j. the individual HAP content for each HAP of each solvent added to maintain viscosity, in pounds of individual HAP per gallon of solvent added to maintain viscosity, as applied;

k. the total combined HAP content of each solvent added to maintain viscosity, in pounds of combined HAPs per gallon of solvent added to maintain viscosity, as applied (sum all individual HAP contents from (i));

l. the total individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

m. the total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

n. the rolling, 365-day summation of the total OC emissions from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per year;

o. the rolling, 12-month summation of individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

p. the rolling, 12-month summation of total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

q. a calculation of the percentage of inks employed that are water-based inks (see section A.2.b.); and

r. the total tons of ink used. (This shall include any initial thinning solvents, including water, used to get the ink press ready. It shall not include any solvents used to maintain viscosity.)

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 365-day emission limitation for OC;

b. all exceedances of the rolling, 12-month facility emission limitation for individual HAPs and combined HAPs;

c. an identification of each month that showed a violation of the limit of no more than 40% of the gallons of inks employed can be solvent-based inks and the actual percentage of solvent-based inks employed for each such month; and

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d. an identification of any year in which the annual ink usage exceeds a total of 148 tons from all emissions units at this facility. This ink usage shall include any initial thinning solvents, including water, used to make the ink press ready. It shall not include any solvents used to maintain viscosity.

2. The permittee shall submit an annual report that specifies the total organic compound emissions rate from emissions units K001, K004, K005, K006, K007 & K008 for each month of the previous calendar year. The permittee shall also submit an annual report that specifies the tons of ink and coatings employed at this facility in all flexographic, packaging rotogravure and publication rotogravure printing lines during the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I. of these terms and conditions shall be determined in accordance with the following methods(s):

a. Emission Limitation:
Organic compound emissions shall not exceed 100 pounds/hour.

Applicable Compliance Method:
This limit was based on a one-time calculation of the maximum emissions that can be generated by this emissions unit.

b. Emission Limitation:
Organic compound emissions shall not exceed 55.2 tons/year**.**

Applicable Compliance Method:
K001, K004, K005, K006, K007 and K008 are limited to a total of 55.2 tons OC emissions per year. Compliance with this limit will ensure compliance with the 55.2 tons OC/yr limit for K008.

c. Emission Limitation:
Requirement that at least 60% of the inks used in emissions units K001, K004, K005, K006, K007 and K008 be water-based inks.

Applicable Compliance Method:
Recordkeeping

d. Emission Limitation:
The total OC emissions from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons/year, based upon a rolling, 365-day summation of the OC emissions.

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Applicable Compliance Method:
Daily records shall be maintained of the OC contents of all coatings, cleanup solvents and solvents used to maintain viscosity employed, the daily usage of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated daily total OC emission rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility. The mass of organic compounds per volume of each coating shall be determined in accordance with the procedures in OAC rule 3745-21-10(B) and OAC rule 3745-21-04(B)(5). The OC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall 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.

e. Emission Limitation
The combined annual HAPs emissions from the entire facility (K001 and K004-K008) shall not exceed 24.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

f. Emission Limitation
The annual individual HAP emissions from the entire facility (K001 and K004-K008) shall not exceed 9.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

F. Miscellaneous Requirements

1. This permit to install shall supersede all of the air pollution control requirements for these emissions units previously contained in permit to install number 15-01316, as modified on April 19, 2000.

2. The following terms and conditions are federally enforceable: A. B, C.1, D, and E.

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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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
K008 - Printing Press 1-8 color flexographic printing press used to print on flexible substrates; Buckeye Flexographic Press #8 (New press)	OAC rule 3745-31-05(A)(3)	Organic compound emissions shall not exceed 100 pounds/hour and 55.2 tons/year. The total water-based ink usage for emissions units K001, K004, K005, K006, K007 and K008 shall consist of at least 60% of the overall ink usage on a monthly basis. See section 2.c. below.
	OAC rule 3745-35-07(B)	The combined emissions of OC from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. See sections 2.a. and 2.b below.
	OAC rule 3745-21-09(Y)	Any printing line that is located at a facility in which the total maximum usage of coatings and inks in all flexographic, packaging rotogravure and publication rotogravure printing lines is less than or equal to 148 tons/year is exempt from this rule.

2. Additional Terms and Conditions

2.a The combined annual emissions from the entire facility (K001, K004-K008) shall not exceed the following as rolling 12-month summations:
24.9 tons of all hazardous air pollutants (HAP); and

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9.9 tons of any individual HAP.

2.b This allowable includes any solvent used to make the ink press ready and for press parts and worker cleanup. The permittee has existing records (from the past year) that demonstrate compliance with the restricted OC and HAPs emissions of this PTI; therefore, month-to-month limitations are not needed for the first 12 months after issuance of this permit.

2.c A water-based ink shall be defined as an ink in which the organic compound content of the volatile matter is less than 25% of the total volume of the volatile matter in the ink (prior to the addition of any thinning solvents). Compliance with this term shall be determined by calculating the gallons (prior to the addition of any thinning solvents) of the solvent-based ink used per month as a percentage of the sum of the gallons of solvent-based inks (prior to the addition of any thinning solvents) and the gallons of water-based ink (prior to the addition of any solvents) per month.

B. Operational Restrictions

None

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each day for emissions units K001, K004, K005, K006, K007 and K008 (records do not have to be maintained for individual presses):

   a. the company identification for each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   b. the number of gallons of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   c. the organic compound content of each ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity employed;

   d. the total OC emissions from all ink, cleanup solvent, initial thinning solvent (used to get the ink press ready), and solvent added to maintain viscosity, in pounds or tons;

   e. the water content of any ink employed (prior to the addition of any thinning solvents);

   f. the individual HAP content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;

   g. the total combined HAP content of each coating, in pounds of combined HAPs per gallon of coating, as applied (sum all individual HAP contents from (f));

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h. the individual HAP content for each HAP of each cleanup solvent, in pounds of individual HAP per gallon of cleanup solvent, as applied;

i. the total combined HAP content of each cleanup solvent, in pounds of combined HAPs per gallon of cleanup solvent, as applied (sum all individual HAP contents from (h));

j. the individual HAP content for each HAP of each solvent added to maintain viscosity, in pounds of individual HAP per gallon of solvent added to maintain viscosity, as applied;

k. the total combined HAP content of each solvent added to maintain viscosity, in pounds of combined HAPs per gallon of solvent added to maintain viscosity, as applied (sum all individual HAP contents from (i));

l. the total individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

m. the total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per month;

n. the rolling, 365-day summation of the total OC emissions from all coatings, cleanup solvents and solvents used to maintain viscosity employed, in pounds or tons per year;

o. the rolling, 12-month summation of individual HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

p. the rolling, 12-month summation of total combined HAP usage from all coatings, cleanup solvents and solvents used to maintain viscosity, in pounds or tons per year;

q. a calculation of the percentage of inks employed that are water-based inks (see section A.2.b.); and

r. the total tons of ink used. (This shall include any initial thinning solvents, including water, used to get the ink press ready. It shall not include any solvents used to maintain viscosity.)

2. The permit to install for this emissions unit (K008 - Printing Press 1-8 color flexographic printing press used to print on flexible substrates; Buckeye Flexographic Press #8) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The following input parameters were used:

a. Source type = Point

b. Emission rate = 1 lb/hr

c. Stack height = 15 feet

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d. Stack inside diameter = 1.6699 feet

e. Stack flow rate = 0.0098 ft/sec

f. Stack gas exit temp. = 120 degrees F

g. Location = Rural

h. Building Ht. = 22 feet

i. Min horiz bldg dim = 86 feet

j. Max horiz bldg dim = 115 feet

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

Pollutant: n-Propyl Alcohol

TLV (ug/m3): 500,000

Maximum Hourly Emission Rate (lbs/hr): 20

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6,412

MAGLC (ug/m3): 11,904

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification 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 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 previously modeled;

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b. changes in the composition of the materials used, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that is 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 changes(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 (V)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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 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.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify the following:

a. all exceedances of the rolling, 365-day emission limitation for OC;

b. all exceedances of the rolling, 12-month facility emission limitation for individual HAPs and combined HAPs;

c. an identification of each month that showed a violation of the limit of no more than 40% of the gallons of inks employed can be solvent-based inks and the actual percentage of solvent-based inks employed for each such month; and

d. an identification of any year in which the annual ink usage exceeds a total of 148 tons from all emissions units at this facility. This ink usage shall include any initial thinning solvents, including water, used to make the ink press ready. It shall not include any solvents used to maintain viscosity.

2. The permittee shall submit an annual report that specifies the total organic compound emissions rate from emissions units K001, K004, K005, K006, K007 & K008 for each month of the previous calendar year. The permittee shall also submit an annual report that specifies the tons of ink and

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coatings employed at this facility in all flexographic, packaging rotogravure and publication rotogravure printing lines during the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in section A.I. of these terms and conditions shall be determined in accordance with the following methods(s):

   a. Emission Limitation:
   Organic compound emissions shall not exceed 100 pounds/hour.

   Applicable Compliance Method:
   This limit was based on a one-time calculation of the maximum emissions that can be generated by this emissions unit.

   b. Emission Limitation:
   Organic compound emissions shall not exceed 55.2 tons/year**.**

   Applicable Compliance Method:
   K001, K004, K005, K006, K007 and K008 are limited to a total of 55.2 tons OC emissions per year. Compliance with this limit will ensure compliance with the 55.2 tons OC/yr limit for K008.

   c. Emission Limitation:
   Requirement that at least 60% of the inks used in emissions units K001, K004, K005, K006, K007 and K008 be water-based inks.

   Applicable Compliance Method:
   Recordkeeping

   d. Emission Limitation:
   The total OC emissions from emissions units K001, K004, K005, K006, K007 and K008 shall not exceed 55.2 tons/year, based upon a rolling, 365-day summation of the OC emissions.

   Applicable Compliance Method:
   Daily records shall be maintained of the OC contents of all coatings, cleanup solvents and solvents used to maintain viscosity employed, the daily usage of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated daily total OC emission rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility. The mass of organic compounds per volume of each coating shall be determined in accordance with the procedures in OAC rule 3745-21-10(B) and OAC rule 3745-21-04(B)(5). The OC content of each coating shall be determined using USEPA Methods 24 and 24A. If pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating,

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the permittee shall 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.

e. Emission Limitation
The combined annual HAPs emissions from the entire facility (K001 and K004-K008) shall not exceed 24.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

f. Emission Limitation
The annual individual HAP emissions from the entire facility (K001 and K004-K008) shall not exceed 9.9 tons as a rolling, 12-month summation.

Applicable Compliance Method
Monthly records shall be maintained of the HAP content of each individual HAP of all coatings, cleanup solvents and solvents used to maintain viscosity employed, and the calculated monthly total HAP emissions rate for all coatings, cleanup solvents and solvents used to maintain viscosity employed in this facility.

F. Miscellaneous Requirements

1. This permit to install shall supersede all of the air pollution control requirements for these emissions units previously contained in permit to install number 15-01316, as modified on April 19, 2000.

2. The following terms and conditions are federally enforceable: A. B, C.1, D, and E.

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NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

SIC CODE 2673 SCC CODE 40202201 EMISSIONS UNIT ID K001

EMISSIONS UNIT DESCRIPTION 1-6 color flexographic printing press used to print on flexible substrates Buckeye Flexographic Press #4 (modification)

DATE INSTALLED 12/90

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM_{10}					
Sulfur Dioxide					
Organic Compounds	Attainment			100 lbs/hr	55.2
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination At least 60 % of the inks used at this facility have to be water based.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ NA

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

IDENTIFY THE AIR CONTAMINANTS: Ethanol, Ethyl Acetate, Isopropyl Acetate, Isopropyl Alcohol, n-Propyl Acetate, n-Propyl Alcohol, 2-Butoxyethanol, Heptane

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

SIC CODE 2673 SCC CODE 40202201 EMISSIONS UNIT ID K004

EMISSIONS UNIT DESCRIPTION 2-color flexographic printing press used to print on flexible substrates, Buckeye Flexographic Press #3 (modification)

DATE INSTALLED 6/84

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM_{10}					
Sulfur Dioxide					
Organic Compounds	Attainment			100 lbs/hr	55.2
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination At least 60 % of the inks used at this facility have to be water based.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ NA

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

IDENTIFY THE AIR CONTAMINANTS: Ethanol, Ethyl Acetate, Isopropyl Acetate, Isopropyl Alcohol, n-Propyl Acetate, n-Propyl Alcohol, 2-Butoxyethanol, Heptane

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

SIC CODE 2673 SCC CODE 40202201 EMISSIONS UNIT ID K005

EMISSIONS UNIT DESCRIPTION 1-6 color flexographic printing press used to print on flexible substrates, Buckeye Flexographic Press #5 (modification)

DATE INSTALLED 12/90

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM_{10}					
Sulfur Dioxide					
Organic Compounds	Attainment			100 lbs/hr	55.2
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination At least 60 % of the inks used at this facility have to be water based.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ NA

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

IDENTIFY THE AIR CONTAMINANTS: Ethanol, Ethyl Acetate, Isopropyl Acetate, Isopropyl Alcohol, n-Propyl Acetate, n-Propyl Alcohol, 2-Butoxyethanol, Heptane

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

SIC CODE 2673 SCC CODE 40202201 EMISSIONS UNIT ID K006

EMISSIONS UNIT DESCRIPTION 1-6 color flexographic printing press used to print on flexographic substrates, Buckeye Flexographic Press #6 (modification)

DATE INSTALLED 12/90

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM_{10}					
Sulfur Dioxide					
Organic Compounds	Attainment			100 lbs/hr	55.2
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination At least 60 % of the inks used at this facility have to be water based.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ NA

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

IDENTIFY THE AIR CONTAMINANTS: Ethanol, Ethyl Acetate, Isopropyl Acetate, Isopropyl Alcohol, n-Propyl Acetate, n-Propyl Alcohol, 2-Butoxyethanol, Heptane

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

SIC CODE 2673 SCC CODE 40202201 EMISSIONS UNIT ID K007

EMISSIONS UNIT DESCRIPTION 1-6 color flexographic printing press used to print on flexible substrates, Buckeye Flexographic Press #7 (modification)

DATE INSTALLED 6/96

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM_{10}					
Sulfur Dioxide					
Organic Compounds	Attainment			100 lbs/hr	55.2
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination At least 60 % of the inks used at this facility have to be water based.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ NA

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? x YES ____ NO

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

IDENTIFY THE AIR CONTAMINANTS: Ethanol, Ethyl Acetate, Isopropyl Acetate, Isopropyl Alcohol, n-Propyl Acetate, n-Propyl Alcohol, 2-Butoxyethanol, Heptane

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

SIC CODE 2673 SCC CODE 40202201 EMISSIONS UNIT ID K008

EMISSIONS UNIT DESCRIPTION Printing press #8.

DATE INSTALLED Scheduled Aug 2000

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM_{10}					
Sulfur Dioxide					
Organic Compounds	Attainment			100 lbs/hr	55.2
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
Enter Determination At least 60 % of the inks used at this facility have to be water based.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ NA

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES ____ NO

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

IDENTIFY THE AIR CONTAMINANTS: Ethanol, Ethyl Acetate, Isopropyl Acetate, Isopropyl Alcohol, n-Propyl Acetate, n-Propyl Alcohol, 2-Butoxyethanol, Heptane

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit hard copy items to Pam McGraner, AQM&P, DAPC, Central Office, and electronic files to airpti@epa.state.oh.us

Please fill out the following. If the checkbox does not work, replace it with an 'X'	Electronic	Additional information File Name Convention (your PTI # plus this letter)	Hard Copy	None
Calculations (required)	☒	0000000c.wpd	☐	
Modeling form/results	☒	0000000s.wpd	☐	☐
PTI Application (complete or partial)*	☐	0000000a.wpd	☒	☐
BAT Study	☐	0000000b.wpd	☐	☐
Other/misc.	☐	0000000t.wpd	☐	☐

*** Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.**

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

This facility has six existing printing presses, K001, K003-K007, that are found in Synthetic Minor PTI 15-01316 (modification issued on 4/19/2000). This PTI will supersede PTI 15-01316. PTI 15-01316 did not have limits on the HAPs. The facility started using inks which contain HAPs; so HAPs, limits are being established in this PTI. The emissions unit found in this PTI, K008, is replacing emissions unit K003. These presses use both water based and solvent based inks. The water based inks are called aquasurf and it comes in 5 colors. There are 3 different types of solvent based inks (versaflex, thermaflex and thermosurf) each of these inks also comes in 5 colors. The highest VOC content of any ink employed is 5.54 lbs VOC/gallon as applied minus H_2O and exempt solvents. Thinner solvents are added to the ink to make it press-ready (about 40%). Thinner solvents are also added to the ink to maintain the proper viscosity. Cleanup solvent is also used.

AIR TOXICS

Maximum emission rate for K008 is 100 lbs OC/hr based on the following table:

Total Ink Weight Applied = 1.25 lbs/ream

Maximum Ream Volume = 14 reams/hr

Coating	Product Mix	Density lb/gal	VOC Density lb/gal	Lbs per Ream	Gal VOC per Ream	VOC lbs per Ream	VOC lbs/hr
Thermosurf	60%	7.50	5.54	1.25	0.1666	0.9233	7.756

NEW SOURCE REVIEW FORM B

PTI Number: 15-01429 Facility ID: 1576011509

FACILITY NAME Buckeye Packaging Co Inc

FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

Thinner	40%	6.51	6.51	1.25	0.1920	1.25	7
Total							14.756

Cleanup Material	Product Mix	Density lb/gal	VOC Density lb/gal	Gallons per hour (max)	VOC lbs/hr
Cleanup (thinner)	100%	6.51	6.51	13	84.63
Grand Total					99.39

The usage rate for veraflex = 14.756/3.44 = 4.3 gallons/hr

The use of 13 gallons of cleanup material is a maximum usage rate. The average hourly usage rate of cleanup material based on a maximum annual usage rate of 1,500 gallons found in the PTI application is 0.17 gallons/hr.
The Air Toxic Modeling will use a conservative number of 1 gallon cleanup solvent/hr. The cleanup solvent used is n-Propyl alcohol. The density of n-Propyl alcohol is 6.51 lbs/hr.

Veraflex (based on a usage rate of 4.3 gal/hr)

Ethanol	14.756 lbs/hr x 0.0817 = 1.2 lbs/hr
Heptane	14.756 lbs/hr x 0.2372 = 3.5 lbs/hr
Isopropyl Acetate	14.756 lbs/hr x 0.0569 = 0.84 lbs/hr
Methyl Alcohol	14.756 lbs/hr x 0.2656 = 3.92 lbs/hr
n-Propyl Acetate	14.756 lbs/hr x 0.0813 = 1.2 lbs/hr
n-Propyl alcohol	14.756 lbs/hr x 0.2775 = 4.09 lbs/hr + 6.51 lbs/hr (cleanup) = 10.6 lbs/hr

Thermaflex (based on a usage rate of 4.3 gal/hr)
4.3 gal/hr x 4.17 gal VOC/gal = 17.93 lbs VOC/hr

Ethanol	17.93 lbs/hr x 0.5968 = 10.7 lbs/hr
Isopropyl Acetate	17.93 lbs/hr x 0.1654 = 2.97 lbs/hr
Isopropyl Alcohol	17.93 lbs/hr x 0.1497 = 2.68 lbs/hr
n-Propyl Acetate	17.93 lbs/hr x 0.0881 = 1.58 lbs/hr
n-Propyl Alcohol	6.51 lbs/hr (cleanup)

Aquasurf (based on a usage rate of 4.3 gal/hr)
4.3 gal/hr x 0.65 lb/gal = 2.795 lbs VOC/hr

2-Butoxyethanol	2.795 lbs/hr x 0.4793 = 1.34 lbs/hr
n-Propyl Alcohol	2.795 lbs/hr x 0.5207 = 1.46 lbs/hr
ammonia	0.5 lb/hr (estimate)

Thermosurf (based on a usage rate of 4.3 gal/hr)

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4.3 gal/hr x 4.77 lbs VOC/gal = 20.51 lbs VOC/hr

Ethanol	20.51 lbs VOC/hr	x	0.5029	=	10.3 lbs/hr			
Ethyl Acetate	20.51 lbs VOC/hr	x	0.0323	=	0.66 lb/hr			
Isopropyl Acetate	20.51 lbs VOC/hr	x	0.1217	=	2.49 lbs/hr			
Isopropyl Alcohol	20.51 lbs VOC/hr	x	0.1173	=	2.41 lbs/hr			
n-Propyl Acetate	20.51 lbs VOC/hr	x	0.2199	=	4.51 lbs/hr			
n-Propyl Alcohol	20.51 lbs VOC/hr	x	0.0059	=	0.12 lbs/hr	+	6.51 lbs/hr	= 6.63 lbs/hr

Highest Emission rate for each compound

Compound	Emissions	MAGLC ug/m3	GLC ug/m3	GLC/MAGLC
Ethanol	10.7 lbs/hr	45,238	2250	5 %
Ethyl Acetate	0.66 lb/hr	33,333	139	0.4 %
Isopropyl Acetate	2.97 lb/hr	22,619	625	0.3 %
Isopropyl Alcohol	2.68 lbs/hr	23,333	564	2,4 %
n-Propyl Acetate	4.51 lbs/hr	20,000	948	4.7 %
n-Propyl Alcohol	10.6 lbs/hr	11,905	2229	18.7 %
2-Butoxyethanol	1.34 lbs/hr	5,714	278	4.8 %
ammonia	0.5 lb/hr	833	105	12.6 %
Heptane	3.5 lbs/hr	47,619	736	1.5 %
Methyl Alcohol	3.92 lbs/hr	6,190	824	13.3 %

SCREEN3 modeling at 1 lb/hr showed a concentration of 210.3 ug/m3.

HAPS

The only substantial HAP is methanol which is found in the solvent based inks category called versaflex. A very small amount of HAPs are found in the aquasurf ink which is water based. Individual HAPs will be limited to 9.9 tons/yr as a 12-month rolling average and total HAPs will be limited to 24.9 tons/yr as a 12-month rolling average. The PTE of methanol is calculated as follows:

Maximum usage rate of versaflex is 4.3 gallons/hr per emissions unit
VOC content of versaflex = 3.44 lbs VOC/gal
Methanol content of total solvent = 26.56%

4.3 gal/hr x 3.44 lbs VOC/gal x 0.2656 = 3.93 lbs methanol/hr
3.93 lbs methanol/hr x 8,760 hrs/yr x 1 ton/2,000 lbs = 17.2 tons methanol/yr
17.2 tons methanol/yr x 6 (six presses) x 0.4 (limit for solvent based inks) = 41.28 tons methanol/yr

Potential to Emit Before Limits (TPY)
Buckeye Packaging Company, Inc 15 76 01 1509

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FACILITY DESCRIPTION Printing Press CITY/TWP Marlboro Twp

EU	Co. ID	PM	OC	SO2	CO	NOx	Ind. HAP	Total HAPs
K001	Press #4	----	99.2	----	----	----	17.2	----
K002*** K003***	Press #1 Press #2	----	-----	----	----	----	17.2	----
K004	Press #3	----	99.2	----	----	----	17.2	----
K005	Press #5	----	99.2	----	----	----	17.2	----
K006	Press #6	----	99.2	----	----	----	17.2	----
K007	Press #7	----	99.2	----	----	----	17.2	----
K008	Press #8	----	63.9	----	----	----	17.2	----
**Minor Fuel Burning Sources	----	<1TPY	<1 TPY	<1 TPY	<1 TPY	3.78	----	----
Total		----	559.9	----	----	3.78	41.28*	----

*this number is smaller than the sum of the individual emissions unit because there is a facility wide limit of 40% for solvent based ink usage.
** Small non-permitted emissions units
***K002 and K003 have been permanently shut down.

Potential to Emit

After Limits

Buckeye Packaging Company, Inc.

15 76 01 1509

EU	Co. ID	PM	OC	SO2	CO	NOx	Ind. HAP	Total HAPs
K001	Press #4	----	55.2***	----	----	----	9.9*	24.9*
K002 K003	Press #1 Press #2	----	------	----	----	----	9.9*	24.9*

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K004	Press #3	----	55.2***	----	----	----	9.9*	24.9*
K005	Press #5	----	55.2***	----	----	----	9.9*	24.9*
K006	Press #6	----	55.2***	----	----	----	9.9*	24.9*
K007	Press #7	----	55.2***	----	----	----	9.9*	24.9*
K008	Press #8	----	55.2***	----	----	----	9.9*	24.9*
----	**Minor Fuel Burning Sources	<1 TPY	<1 TPY	<1 TPY	<1 TPY	3.78	----	----
Total		----	55.2***	----	----	3.78	9.9*	24.9*

*Facility-wide limits..
**Small non-permitted emissions units
***Total combined limit for K001-K007 established in PTI 15-01316 and PTI 15-01429

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

☒ **Synthetic Minor Determination and/or** ☐ **Netting Determination**

Permit To Install 15-01429

A. Source Description

K008 is a 1-8 color flexographic printing press used to print on flexible substrates. The Company ID is Buckeye Flexographic Press #8.

B. Facility Emissions and Attainment Status

Buckeye Packaging Company, Inc. manufactures plastic bags and then prints on these bags. There are presently six (6) permitted emissions units at this facility, and they are all flexographic printing presses (K001, K003-K007). (Note: K002 was recently permanently shut down and K008 will replace K003.) PTI 15-01316 was issued as a Synthetic Minor PTI, which limited the OC emissions from emissions units K001, K003-K007 to no more than 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions.

C. Source Emissions

This emissions unit has the PTE of 63.9 tons OC/yr. If no restrictions were taken on the PTE, the total facility PTE of OC emissions would be 119.1 TPY (63.9 TPY + 55.2 TPY), which would exceed the Title V threshold of 100 TPY. It is accepting the group limit for OC emissions from emissions units K001, K004-K008 of no more than 55.2 tons per year, based upon a rolling, 365-day summation of the daily emissions. The PTE for individual HAPs for the entire facility is 41.28 tons/yr because of the methanol found in versaflex ink.

D. Conclusion

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The PTE from the entire facility will be the following after this PTI is issued;
55.2 tons OC/yr;
9.9 tons/yr of individual HAPs; and
24.9 tons/yr of total combined HAPs.

All of these limits are below Title V levels so this facility will avoid Title V.

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

SUMMARY (for informational purposes only)

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
OC	55.2
Ind. HAP	9.9
Total HAPs	24.9