



State of Ohio Environmental Protection Agency

**RE: PERMIT TO INSTALL DIRECT FINAL CERTIFIED MAIL
SUMMIT COUNTY**

Street Address:

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

Mailing Address:
Lazarus Gov.
Center

Application No: 16-1915

DATE: April 28, 1999

Bunnell Printing Corp
James D Bunnell
1414 Kenmore Boulevard
Akron, OH 44314

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, buy 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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:



Environmental Review Appeals Commission
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

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

cc: USEPA
AKRON REGIONAL AIR QUALITY MGMT

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

**Terms and
Conditions**

Issue Date: April 28, 1999
Effective Date: April 28, 1999

DIRECT FINAL PERMIT TO INSTALL 16-1915

Application Number: 16-1915
APS Premise Number: 1677010602
Permit Fee: **\$200**
Name of Facility: Bunnell Printing Corp
Person to Contact: James D Bunnell
Address: 1414 Kenmore Boulevard
Akron, OH 44314

Location of proposed air contaminant source(s) [emissions unit(s)]:
1414 Kenmore Boulevard
Akron, OHIO

Description of proposed emissions unit(s):
HEATSET WEB OFFSET PRINTING LINE.

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

Bunnell Printing Corp
PTI Application: **16-1915**
April 28, 1999

Facility ID: **1677010602**

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Organic Compound	7.3
Particulates	2.4

Bunnell Printing Corp
PTI Application: **16-1015**
April :

Facility ID: **1677010602**

Emissions Unit ID: **R002**

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.

OAC rule 3745-21-07

**Operations, Property,
and/or Equipment**

Applicable Rules/Requirements

heatset web offset printing line [M1000 Line #2], with natural gas-fired, indirect heat transfer drying ovens, always employing photochemically reactive materials, controlled by a condenser/filter system common with R001 [RZ 420 Line #3]	OAC rule 3745-31-05
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[Note: the definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).]

OAC rule 3745-17-07

OAC rule 3745-17-11

**Applicable Emissions
Limitations/Control Measures**

8 lbs/hr; 40 lbs/day; and 7.3 tpy of organic compounds (OC)

Dryer emissions of OC shall vent to a condenser/filter system. The condenser/filter system shall remove, at a minimum, 90% by weight of the OC in the drying oven emissions (see A.2.a, B.1, and B.2 below).

There shall be no visible emissions of particulates from any building ventilation (i.e., doors, windows, vents, etc.).

Hand rags and any other article used for cleanup shall be placed in a closed/sealed container when not in use or for proper disposal.

20% opacity from any stack, as a 6-minute average, except as provided by rule.

0.551 lb/hr; and 2.4 tpy of particulates from the condenser/filter system stack

The OC emission limits based on OAC rule 3745-21-07 are less stringent than the emission limits based on OAC rule 3745-31-05.

2. **Additional Terms and Conditions**

- a. The permittee shall employ a properly installed, operated, and maintained condenser/filter system, including properly installed, operated, and maintained hoods, ducts, fans, and other equipment, in accordance with the manufacturer's recommendations, instructions, and operating manual(s), to adequately capture, enclose, contain, and collect and control OC emissions from this emissions unit.

[Note: Although the employment of a condenser/filter system is the current OC emissions control device for this emissions unit, the permittee reserves the right to change to an alternative control technology (e.g., thermal incineration, etc.) as long as the change results in equivalent or better OC emissions control, as required in this Permit to Install (PTI)].

B. Operational Restrictions

1. The permittee shall employ only natural gas as fuel for the drying ovens associated with this emissions unit.
2. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average condenser exhaust gas temperature established during the performance and emissions testing, as required in this PTI (see E.2 below), that demonstrated the emissions unit was in compliance with the applicable OC emission limitation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the condenser when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
2. The permittee shall collect and record the following information each day for the control equipment:

Emissions Unit ID: **R002**

- a. The average temperature of the exhaust gases from the condenser during each of the 8 3-hour blocks of time during the day.
 - b. A log or record of the downtime for the capture (collection) system, control device, temperature monitoring/recording equipment, and the associated emissions unit.
3. The permittee shall collect and record the following information each day for the emissions unit:
- a. the company identification for each coating (i.e., ink, fountain solution, etc.) and cleanup material (automatic blanket wash, roller wash, any other manual cleanup material, etc.) employed;
 - b. the amount of each coating employed, in gallons, except inks which are usually expressed in pounds;
 - c. the number of gallons of each cleanup material employed;
 - d. the organic compound content of each coating, in pounds per gallon, except inks which are usually expressed in per cent by weight;
 - e. the organic compound content of each cleanup material, in pounds per gallon;
 - f. the total daily OC emission rate*, in pounds per day, from all coatings and cleanup materials (i.e., the sum of the controlled and fugitive OC emissions from all coatings and cleanup materials employed each day);
 - g. the total number of hours the emissions unit was in operation; and,
 - h. the average hourly OC emission rate from all coatings and cleanup materials employed each day, in pounds per hour (i.e., (f)/(g)).

[Note: The coating and cleanup material information must be for the coatings and cleanup materials as employed, including any thinning solvents added at the emissions unit.]

4. * Per DAPC guidance, and based on a successful demonstration of negative pressure in the dryer ovens in accordance with section E.2 below, the following assumptions will be used in calculating the OC emissions from this emissions unit: 20 percent (by weight) of the OC content of the inks

is retained in the web after the dryer, and the remaining 80 percent (by weight) of the OC content of the inks is vented to the condenser, yielding 100 percent capture of ink OC content. When fountain solution is employed, 30 percent of the OC content of fountain solution is fugitive, and 70 percent is vented to the condenser. For automatic blanket wash systems, 60 percent of the OC content is fugitive, and 40 percent is vented to the condenser. For cleanup materials applied manually using wipes, 50 percent of the emission is fugitive and 50 percent is retained in the wipes and not emitted. A yet-to-be-determined OC removal efficiency (RE) for the condenser (to be determined during the emission testing required per E.2 below) shall be used for the calculating the controlled emission rate of OC from ink, fountain solution, and blanket wash. Therefore, total emissions for any given time period may be calculated as:

$$[(1-\text{condenser RE}) \times \{(0.80 \times \text{total OC content of all inks}) + (0.70 \times \text{fountain solution OC}) + (0.40 \times \text{blanket wash OC})\}] + [(0.50 \times \text{total OC emissions of manual cleanup materials}) + (0.30 \times \text{fountain solution OC}) + (0.60 \times \text{blanket wash OC})].$$

D. Reporting Requirements

1. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condenser exceeded the temperature limitation specified above.
2. The permittee shall submit quarterly summaries which include a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall submit deviation (excursion) reports which identify each day during which the daily and/or the average hourly OC emissions from this emissions unit exceeded the respective applicable OC mass emission limitations of this PTI, and the actual daily and average hourly OC emissions for each such day.
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 2 of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

8 lbs OC/hr and 40 lbs OC/day; and
90% OC removal efficiency (RE)

Applicable Compliance Method:

Compliance shall be based on the recordkeeping requirements in section C, and the emission tests specified in section E.2 below.

[Note: Formulation data or USEPA Method 24A shall be used to determine the OC contents of the coatings and cleanup materials as applied (i.e., including any thinning solvents added at the emissions unit).]

- b. Emission Limitation:

0.551 lb particulates/hr

Bunnell Printing Corp
PTI Application: **16-1015**
April

Facility ID: **1677010602**

Emissions Unit ID: **R002**

Applicable Compliance Method:

If required, compliance with this mass emission limitation shall be based on stack testing per OAC rule 3745-17-03(B).

- c. Emission Limitation:
- 20% opacity from any stack, as a six-minute average.
- Applicable Compliance Method:
- If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Method 9, 40 CFR Part 60, Appendix A.
- d. Emission Limitation:
- No visible particulate emissions from building ventilation
- Applicable Compliance Method:
- If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(4) using the methods and procedures specified in USEPA Method 22, 40 CFR Part 60, Appendix A.
2. The permittee shall conduct, or have conducted, performance and emission testing for R002 and the air pollution control device serving R002 in accordance with the following requirements:
- a. The performance and emissions testing shall be conducted within 3 months following the issuance of this permit.
- b. The tests shall be conducted while R002 and R001 (which are both controlled by the same condenser/filter system) are operating simultaneously and both emissions units are operating at (or greater than) their normal capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
- c. The performance and emissions testing shall be conducted to obtain and/or verify the following information:
- i. compliance demonstration with the OC minimum removal efficiency limitation for the condenser (see E.2.d below);
- ii. performance establishment of the baseline condenser exhaust gas temperature parameter; and,

- iii. performance demonstration of negative pressure in the dryer ovens (for both R002 and R001 to ensure 100% capture and venting of ink OC content to the condenser, resulting in maximum input loading of the condenser assuming the emissions units are operating at or greater than their normal capacity) to confirm that the assumptions stated in section C.4 of these terms and conditions apply to R002 (see E.2.e below).
- d. The following test method shall be employed to demonstrate compliance with the OC minimum removal efficiency limitation: Method 25 or 25A of 40 CFR Part 60, Appendix A.

The removal efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- e. A demonstration of negative pressure in the dryer ovens may include any or all of the following:
 - i. measurement of actual pressure differential between each of the dryer ovens interior and surrounding room atmosphere using a manometer, magnehelic, or equivalent device;
 - ii. a demonstration of inward flow at all openings of the dryer ovens from room atmosphere, taken at 10-minute intervals for a minimum of 60 minutes; or
 - iii. an equivalent protocol proposed by the permittee and approved by the Ohio EPA based on an evaluation of the applicability, necessity, and validity of the alternative, provided such approval does not contravene any other applicable requirement.

If these emissions units fail to demonstrate negative pressure in the dryer ovens, the assumptions detailed in section C.4 shall not apply, and capture efficiency of these emissions units shall be based on capture efficiency testing as described in E.2.f below.

- f. If required, the capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the

Emissions Unit ID: **R002**

applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

- g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the performance and emission tests.

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions units and the testing procedures provide a valid characterization of the emissions from the emissions units and/or the performance of the control equipment.

A comprehensive written report on the results of the performance and emissions tests shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the tests.

F. Miscellaneous Requirements

1. Pursuant to Engineering Guide #69, modeling to demonstrate compliance with the Ohio EPA's Air Toxic Policy was not necessary since the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.