



Street Address:

State of Ohio Environmental Protection Agency
Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

**RE: FINAL PERMIT TO INSTALL
HAMILTON COUNTY
Application No: 14-04927**

CERTIFIED MAIL

DATE: 9/14/00

Riverwood International Corporation
Frank Breznai
10600 Evendale Drive
Cincinnati, OH 45241

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, 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.

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 Director's 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

HCDES



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: September 14, 2000
Effective Date: September 14, 2000**

FINAL PERMIT TO INSTALL 14-04927

Application Number: 14-04927
APS Premise Number: 1431150945
Permit Fee: **\$400**
Name of Facility: Riverwood International Corporation
Person to Contact: Frank Breznai
Address: 10600 Evendale Drive
Cincinnati, OH 45241

Location of proposed air contaminant source(s) [emissions unit(s)]:
**10600 Evendale Drive
Cincinnati, Ohio**

Description of proposed emissions unit(s):
Two 8-Color Rotogravure Printing Presses, each with 8 Dryers.

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	81.1
SO2	0.07
Ammonia	5.92
NOx	11.6
CO	9.8
PM/PM10	0.88

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
K001 - 8-Color Rotogravure Printing Press with Eight Dryers - Modification	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-10
		OAC rule 3745-17-07(A)
		OAC rule 3745-21-09(Y)
		40 CFR 63 Subpart KK

OAC rule 3745-31-05(D)

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Issued: September 14, 2000

Emissions Unit ID: **K001**

Applicable Emissions
Limitations/Control Measures

emission limitation established
pursuant to OAC rule
3745-31-05(A)(3)

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-21-09(Y) and 40 CFR Part 63 Subpart KK.

See term A.2.2.c

See term A.2.2.b and A.2.2.e

250.12 lbs/day VOC from coatings
10.93 lbs/day Ammonia from coatings;

1.99 TPY Ammonia, based on a rolling 12-month summation.

Natural Gas Combustion Emissions:

0.1 lb/MMBtu NO_x

5.9 TPY NO_x

0.084 lb/MMBtu CO

5.0 TPY CO

0.0006 lb/MMBtu SO₂

0.04 TPY SO₂

0.011 lb/MMBtu VOC

0.65 TPY VOC

0.0076 lb/MMBTU PM/PM₁₀

0.45 TPY PM/PM₁₀

See term A.2.2.c

24.77 TPY VOC, based on a rolling 12-month summation.

See term A.2.b, B.1 & B.2

See term A.2.2.d

The emission limitation specified by this rule is less stringent than the

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by VOC content limitations, coating usage limitations, the exclusive use of natural gas and compliance with Ohio EPA Air Toxic Policy.
- 2.b** The total allowable usage of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from this facility shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation. The permittee has existing records to demonstrate compliance with the rolling, 12-month summation limitation.
- 2.c** The volatile organic compound content of the coatings (inks and varnishes) employed in this emissions unit shall not exceed the following:
- i. Forty percent VOC by volume of the coating and ink, excluding water and exempt solvents, or twenty-five percent VOC by volume of the volatile matter in the coating and ink [For compliance with OAC rule 3745-21-09(Y)].
 - ii. For inks, 11.18 percent by weight (For compliance with the lbs/day VOC limit).
 - iii. For inks, 5.9 percent as a weighted average, based upon a rolling, 12-month summation, of all the inks employed. Compliance shall be determined by the methods outlined in the Ohio Administrative Code (OAC) rule 3745-21-10 (B)(9) [For compliance with the TPY VOC limit].
 - iv. For varnishes, 2 percent by weight (For compliance with the lbs/day VOC limit).
 - v. For varnishes, 1.2 percent as a weighted average, based upon a rolling, 12-month summation, of all the varnish employed. Compliance shall be determined by the methods outlined in the Ohio Administrative Code (OAC) rule 3745-21-10 (B)(9) [For compliance with the TPY VOC limit].

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PTI /

Emissions Unit ID: **K001**

Issued: September 14, 2000

- 2.d Visible particulate emissions from this emissions unit shall not exceed 20 % opacity, as a six-minute average, except as specified by rule.
- 2.e The permittee commits to and meets the criteria to be considered an area source, and is subject only to the record keeping and reporting provisions in 40 CFR 63.829(d) and 40 CFR 63.830(b)(1).
- 2.f The daily VOC and ammonia emission limitations outlined in this permit are based upon the maximum hourly application rate at 24 hours per day. Therefore, no daily records are required.

B. Operational Restrictions

- 1. The maximum annual ink usage for emissions unit K001 shall not exceed 681,178 pounds per year, based upon a rolling 12-month summation.
- 2. The maximum annual varnish usage for emissions unit K001 shall not exceed 756,864 pounds per year, based upon a rolling 12-month summation.

C. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall collect and record the following information each month for the entire facility:
 - a. The name and identification number of each coating employed;
 - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each coating in percent by weight of individual HAP as applied;
 - c. The total combined HAP content of each coating in percent by weight of combined HAPs, as applied [sum all the individual HAP contents from (b)];
 - d. The number of pounds of each coating employed;
 - e. The name and identification of each cleanup material employed;
 - f. The individual HAP content for each HAP of each cleanup material in weight percent, as applied;
 - g. The total combined HAP content of each cleanup material in weight percent, as applied [sum all the individual HAP contents from (f)];

Riverwood International Corporation

PTI Application 14-04027

Issue

Facility ID: 1431150945

Emissions Unit ID: K001

- h. The number of pounds of each cleanup material employed;

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PTI /

Issued: September 14, 2000

Emissions Unit ID: **K001**

- i. The total individual HAP usage for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) for each coating and the sum of (f) times (h) for each cleanup material];
- j. The total combined HAP usage from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) for each coating plus the sum of (g) times (h) for each cleanup material];
- k. The updated rolling, 12-month summation of usage for each individual HAP emissions**, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. the updated rolling, 12-month summation of usage for total combined HAP emissions**, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a individual emissions unit basis.

** This assumes the HAP(s) emitted are the same as the amounts of HAP(s) used since all HAP(s) used evaporated.

2. The permittee shall maintain monthly records which list the following information for each coating employed in emissions unit K001:
 - a. The name and identification number of each coating (ink and varnish), as applied;
 - b. The amount in pounds of each coating employed;
 - c. The VOC content of each coating, as applied, in percent by weight;
 - d. The percent VOC by volume of the coating and ink, as applied, excluding water and exempt solvents or the percent VOC by volume of the volatile matter in the coating and ink, as applied.
 - e. The ammonia content of each coating, as applied, in percent by weight;
 - f. The rolling, 12-month summation of the coating usage (inks and varnish), in pounds per year;

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PTI /

Issued: September 14, 2000

Emissions Unit ID: **K001**

- g. The rolling, 12-month weighted average VOC content of all coatings (inks and varnish);
- h. The ammonia content of each coating employed, in weight percent; and
- i. The total ammonia emissions, in lbs/month.

The permittee shall collect and record the following information for the purpose of determining annual VOC emissions:

- a. The name and identification number of each coating, as applied;
 - b. The amount in pounds of each coating employed;
 - c. The VOC content of each coating, as applied, in percent by weight; and
 - d. The annual VOC emissions from all coatings, in tons [the sum of (b) times (c) divided by 2000 lbs./ton].
4. The permit to install for this emissions unit K001 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ammonia

TLV (ug/m3): 17,400

Maximum Hourly Emission Rate (lbs/hr): 1.36 (Emissions units K001 and K002)

Predicted 1-Hour Maximum Ground-Level Concentration at the Fenceline of 100 meters (ug/m3): 393.1

MAGLC (ug/m3): 414

Physical changes to or in the method of operation of the emissions unit after it's installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 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 value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled: and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied with the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is(are) defined as a modification under other provisions of the modification definition [other than (VV)(1)(a)(ii)], then the permittee shall obtain a final permit to install prior 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 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 it's evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the 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

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PTI

Issued: September 14, 2000

Emissions Unit ID: **K001**

1. The permittee shall submit deviation (excursion) reports which identify any exceedance of the HAP emissions limitations set forth in this Permit to Install as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the VOC emissions limitations in term A.1. as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify any exceedance of the usage limitations in terms B.1. and B.2. as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.
4. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
6. If the changes to this emissions unit meet the definition of reconstruction in 40 CFR 63.2 then the permittee shall submit an initial notification in accordance with 40 CFR 63.830(b)(1).
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the CO, OC, SO₂, NO_x and PM/PM₁₀ limits outlined in term A.1. shall be determined using emissions factors from AP-42 Section 1.4 (dated 7/98).
2. Compliance with the VOC emission rate limitations outlined in the Air Emission Summary page of this PTI shall be demonstrated by multiplying the VOC content of the coating, in percent by weight, by the coating usage rate, in pounds or tons.

Issue

Emissions Unit ID: **K001**

3. Compliance with the ammonia emission rate limitations outlined in the Air Emission Summary page of this PTI shall be demonstrated by multiplying the ammonia content of the coating, in percent by weight, by the coating usage rate, in pounds or tons.
4. Compliance with the visible particulate emission limitation in term A.2.2.d shall be determined by 40 CFR Part 60, Appendix A, Method 9.
5. Compliance with the HAPs emissions limitations in term A.2.2.b shall be demonstrated by the record keeping requirements in term C.1.
6. USEPA methods 24 and 24A shall be used to determine the VOC content for inks, flexographic printing lines and related coatings and cleanup materials. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular ink, coating, or cleanup material the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that ink, coating, or cleanup material to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
7. Compliance with the usage limitations in terms B.1. and B.2. shall be demonstrated by the record keeping requirements in term C.2.

F. Miscellaneous Requirements

1. The terms and conditions of this permit will supercede the terms and conditions of PTI 14-4335 upon commencement of the modification. The permittee shall notify the Hamilton County Dept. of Environmental Services in writing prior to commencement of the modification.
2. The following terms and conditions are federally enforceable: A.2.2.a - A.2.2.e, B.1, B.2, C.1 - C.3, D.1 - D.3, D.5, D.6, and E.1- E.7.

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PTI

Issued: September 14, 2000

Emissions Unit ID: **K002**

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	
K002 - 8-Color Rotogravure Printing Press with Eight Dryers	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A) OAC rule 3745-17-10
		OAC rule 3745-21-09(Y) 40 CFR 63 Subpart KK
	OAC rule 3745-31-05(D)	

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PTI

Issued: September 14, 2000

Emissions Unit ID: **K002**

Applicable Emissions
Limitations/Control Measures

emission limitation established
pursuant to OAC rule
3745-31-05(A)(3)

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-21-09(Y) and 40 CFR Part 63 Subpart KK.

See term A.2.2.c

See term A.2.2.b and A.2.2.e

555.82 lbs/day VOC from coatings
21.52 lbs/day Ammonia from coatings;

3.93 TPY Ammonia, based on a rolling 12-month summation.

Natural Gas Combustion Emissions:

0.1 lb/MMBtu NO_x

5.7 TPY NO_x

0.084 lb/MMBtu CO

4.8 TPY CO

0.0006 lb/MMBtu SO₂

0.03 TPY SO₂

0.011 lb/MMBtu VOC

0.63 TPY VOC

0.0076 lb/MMBTU PM/PM₁₀

0.43 TPY PM/PM₁₀

See term A.2.2.c

55.05 TPY VOC, based on a rolling 12-month summation.

See term A.2.2.b, B.1 & B.2

See term A.2.2.d

The emission limitation specified by this rule is less stringent than the

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PTI /

Issued: September 14, 2000

Emissions Unit ID: **K002**

the maximum hourly application rate at 24 hours per day. Therefore, no daily records are required.

B. Operational Restrictions

1. The maximum annual ink usage for emissions unit K002 shall not exceed 1,513,728 pounds per year, based upon a rolling 12-month summation.
2. The maximum annual varnish usage for emissions unit K002 shall not exceed 1,681,920 pounds per year, based upon a rolling 12-month summation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for the entire facility:
 - a. The name and identification number of each coating employed;
 - b. The individual Hazardous Air Pollutant (HAP) content for each HAP of each coating in percent by weight of individual HAP as applied;
 - c. The total combined HAP content of each coating in percent by weight of combined HAPs, as applied [sum all the individual HAP contents from (b)];
 - d. The number of pounds of each coating employed;
 - e. The name and identification of each cleanup material employed;
 - f. The individual HAP content for each HAP of each cleanup material in weight percent, as applied;
 - g. The total combined HAP content of each cleanup material in weight percent, as applied [sum all the individual HAP contents from (f)];
 - h. The number of pounds of each cleanup material employed;

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PTI /

Issued: September 14, 2000

Emissions Unit ID: **K002**

- i. The total individual HAP usage for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) for each coating and the sum of (f) times (h) for each cleanup material];
- j. The total combined HAP usage from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) for each coating plus the sum of (g) times (h) for each cleanup material];
- k. The updated rolling, 12-month summation of usage for each individual HAP emissions**, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- l. the updated rolling, 12-month summation of usage for total combined HAP emissions**, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Hamilton County Department of Environmental Services contact. This information does not have to be kept on a individual emissions unit basis.

** This assumes the HAP(s) emitted are the same as the amounts of HAP(s) used since all HAP(s) used evaporated.

2. The permittee shall maintain monthly records which list the following information for each coating employed in emissions unit K002:
 - a. The name and identification number of each coating (ink and varnish), as applied;
 - b. The amount in pounds of each coating employed;
 - c. The VOC content of each coating, as applied, in percent by weight;
 - d. The percent VOC by volume of the coating and ink, as applied, excluding water and exempt solvents or the percent VOC by volume of the volatile matter in the coating and ink, as applied.
 - e. The ammonia content of each coating, as applied, in percent by weight;
 - f. The rolling, 12-month summation of the coating usage (ink and varnish), in pounds per year (TPY);

- g. The rolling, 12-month weighted average VOC content of all coatings (ink and varnish);
 - h. The ammonia content of each coating employed, in weight percent; and
 - i. The total ammonia emissions, in lbs/month.
3. The permittee shall collect and record the following information for the purpose of determining annual VOC emissions:
- a. The name and identification number of each coating, as applied;
 - b. The amount in pounds of each coating employed;
 - c. The VOC content of each coating, as applied, in percent by weight; and
 - d. The annual VOC emissions from all coatings, in tons [the sum of (b) times (c) divided by 2000 lbs./ton].
4. The permit to install for this emissions unit K002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ammonia

TLV (ug/m3): 17,400

Maximum Hourly Emission Rate (lbs/hr): 1.36 (Emissions unit K001 and K002)

Predicted 1-Hour Maximum Ground-Level Concentration at the Fenceline of 100 meters (ug/m3): 393.1

MAGLC (ug/m3): 414

Issued: September 14, 2000

Physical changes to or 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 Toxics 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 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 value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled: and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. when the 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 which identify any exceedance of the HAP emissions limitations set forth in this Permit to Install as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the VOC emissions limitations in term A.1. as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.
3. The permittee shall submit deviation (excursion) reports which identify any exceedance of the VOC content and/or usage limitations in terms A.2.2.c , B.1. and B.2. as well as the corrective actions that were taken to achieve compliance. If no exceedances occurred during the reporting period then a report is required stating so.
4. The permittee shall submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
5. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying coatings. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.
6. If the changes to this emissions unit meet the definition of reconstruction in 40 CFR 63.2 then the permittee shall submit an initial notification in accordance with 40 CFR 63.830(b)(1).
7. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the CO, OC, SO₂, NO_x and PM/PM₁₀ limits outlined in term A.1. shall be determined using emissions factors from AP-42 Section 1.4 (dated 7/98).
2. Compliance with the VOC emission rate limitations outlined in the Air Emission Summary page of this PTI shall be demonstrated by multiplying the VOC content of the coating, in percent by weight, by the coating usage rate, in pounds or tons.

River

PTI 1

Emissions Unit ID: **K002**

Issued: September 14, 2000

3. Compliance with the ammonia emission rate limitations outlined in the Air Emission Summary page of this PTI shall be demonstrated by multiplying the ammonia content of the coating, in percent by weight, by the coating usage rate, in pounds or tons.
4. Compliance with the visible particulate emission limitation in term A.2.2.d shall be determined by 40 CFR Part 60, Appendix A, Method 9.
5. Compliance with the HAPs emissions limitations in term A.2.2.b shall be demonstrated by the recordkeeping requirements in term C.1.
6. USEPA methods 24 and 24A shall be used to determine the VOC content for inks, flexographic printing lines and related coatings and cleanup materials. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular ink, coating, or cleanup material the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that ink, coating, or cleanup material to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
7. Compliance with the usage limitations in terms B.1. and B.2. shall be demonstrated by the recordkeeping requirements in term C.2.

F. Miscellaneous Requirements

1. The terms and conditions of this permit will supercede the terms and conditions of PTI 14-4335 upon commencement of the modification. The permittee shall notify the Hamilton County Dept. of Environmental Services in writing prior to commencement of the modification.
2. The following terms and conditions are federally enforceable: A.2.2.a - A.2.2.e, B.1, B.2, C.1 - C.3, D.1 - D.3, D.5, D.6, and E.1- E.7.

NEW SOURCE REVIEW FORM B

PTI Number: 14-04927

Facility ID: 1431150945

FACILITY NAME Riverwood International Corporation

FACILITY DESCRIPTION Two 8-Color Rotogravure Printing

CITY/TWP Cincinnati

Emissions Unit ID: **K002**

SIC CODE 2657

SCC CODE 40201330

EMISSIONS UNIT ID K001

EMISSIONS UNIT DESCRIPTION 8-Color Rotogravure Printing Press with Eight Dryers

DATE INSTALLED NA

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	attainment	2.46 lb/day	0.45	2.46 lb/day	0.45
PM ₁₀	attainment	2.46 lb/day	0.45	2.46 lb/day	0.45
Sulfur Dioxide	attainment	0.19 lb/day	0.04	0.19 lb/day	0.04
Organic Compounds	nonattainment	253.68 lb/day	25.42	253.68 lb/day	25.42
Nitrogen Oxides	attainment	3.24 lb/day	5.9	3.24 lb/day	5.9
Carbon Monoxide	attainment	27.22 lb/day	5.0	27.22 lb/day	5.0
Lead					
Other: Air Toxics	unclassified	10.93 lb/day	1.99	10.93 lb/day	1.99

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP? 40 CFR 63

PSD?

OFFSET POLICY?

Subpart KK

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**Enter Determination** BAT is the VOC content limitations, coating usage limitations, exclusive use of natural gas and compliance with Ohio EPA Air Toxic Policy.

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:

Ammonia

2 NEW SOURCE REVIEW FORM B

PTI Number: 14-04927

Facility ID: 1431150945

FACILITY NAME Riverwood International Corporation

FACILITY DESCRIPTION Two 8-Color Rotogravure Printing

CITY/TWP Cincinnati

Emissions Unit ID: **K002**

SIC CODE 2657

SCC CODE 40201330

EMISSIONS UNIT ID K002

EMISSIONS UNIT DESCRIPTION 8-Color Rotogravure Printing Press with Eight Dryers

DATE INSTALLED

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	attainment	2.37 lb/day	0.43	2.37 lb/day	0.43
PM ₁₀	attainment	2.37 lb/day	0.43	2.37 lb/day	0.43
Sulfur Dioxide	attainment	0.19 lb/day	0.03	0.19 lb/day	0.03
Organic Compounds	nonattainment	555.82 lb/day	55.68	555.82 lb/day	55.68
Nitrogen Oxides	attainment	31.2 lb/day	5.7	31.2 lb/day	5.7
Carbon Monoxide	attainment	26.2 lb/day	4.8	26.2 lb/day	4.8
Lead					
Other: Air Toxics	unclassified	21.52 lb/day	3.93	21.52 lb/day	3.93

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP? 40 CFR 63

PSD?

OFFSET POLICY?

Subpart KK

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination BAT is the VOC content limitations, coating usage limitations, exclusive use of natural gas and compliance with Ohio EPA Air Toxic Policy.

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 NOIDENTIFY THE AIR CONTAMINANTS: Ammonia

28 NEW SOURCE REVIEW FORM B

PTI Number: 14-04927

Facility ID: 1431150945

FACILITY NAME Riverwood International Corporation

FACILITY DESCRIPTION Two 8-Color Rotogravure Printing

CITY/TWP Cincinnati

Emissions Unit ID: **K002**

Please describe any hard copy information is being submitted with this recommendation (Please send hard copy information to Pam McGraner, DAPC Central Office - Air Quality Modeling and Planning):

Toxics Screening

Please provide any additional permit specific notes as you deem necessary:

Permit Review Narrative

PTI 14-04927

Riverwood International Corporation

10600 Evendale Drive

Cincinnati, Ohio 45241

Premise Number: 1431150945

Riverwood International Corporation is a manufacturer of beverage carriers and other carton-type products. This permit to install application is a modification of PTI 14-4335. Riverwood wishes to modify existing emissions units K001 and K002 in the calendar year 2001 provided that the business conditions remain favorable to the project. The facility will contact the Hamilton County Department of Environmental Services in writing upon commencement of the modification. K001 is an 8-color rotogravure printing press with 8 dryers and K002 is an 8-color rotogravure printing press with 8 dryers. Riverwood wishes to increase the production speed of emissions unit K002, which will result in an increase in potential emissions. Also, Riverwood plans to reduce the potential emissions from emissions unit K001. This reduction from emissions unit K001 will largely offset the increase of emissions from emissions unit K002. At this time, firm dates for construction are not known, so the facility provided a general schedule. The proposed changes are outlined in the following table:

Emissions Unit	PTI 14-4335 Permit Allowable		PTI 14-04927 Proposed Permit Allowable	
	VOC	Ammonia	VOC	Ammonia
K001	39.93	3.26	24.77	1.99
K002	33.34	2.72	55.05	3.93
Total	73.27	5.98	79.82	5.92

A Best Available Technology (BAT) study was not required due to this being a modification and the net increase of VOC emissions is 6.55 TPY. The permittee wishes to keep the ammonia limit the same. The emissions associated with the ovens increased due to the emission factors for natural gas combustion being revised in 1998.

The applicable OAC rules are 3745-31-05(A)(3), 3745-15-07, 3745-21-09(Y), 3745-17-07, 3745-17-10. Applicable Federal regulations are 40 CFR 63 Subpart KK.. Subpart KK recordkeeping and reporting requirements apply to this

FACILITY DESCRIPTIONTwo 8-Color Rotogravure Printing
Presses, each with 8 Dryers.

CITY/TWP

Cincinnati

area source. Compliance with OAC rule 3745-31-05(A)(3) is VOC content limitations, coating usage limitations, exclusive use of natural gas and compliance with Ohio EPA Air Toxic Policy.

Permit Fee: \$200 x 2 presses = \$400

Alberta Mellon

June 6, 2000

Permit To Install Synthetic Minor Write-Up

Synthetic Minor Determination

PTI 14-04927

B. Source Description:

Riverwood International Corporation has submitted an application for two eight-color rotogravure printing presses, each with eight dryers. This PTI application is a modification of PTI 14-4335.

C. Facility Description:

Riverwood International Corporation is a major stationary source for VOC emissions. The facility is located in Hamilton County, which is designated non-attainment for ozone.

D. Source Emissions:

Potential VOC emissions were calculated based on permittee-supplied maximum usage data. The facility wishes to decrease emissions from emission units K001 while increasing emissions from emissions unit K002. They will do this by decreasing and increasing press speed. Based on these new numbers, maximum hourly VOC emissions are 33.58 lbs/hr VOC. Extrapolated to 8760 hours per year, potential emissions would be 147.08 TPY. Proposed additional terms and conditions will limit the potential VOC emissions to 79.82 TPY. Proposed additional terms and conditions will include usage limitations and VOC content limitations. The permittee will maintain monthly records to demonstrate compliance with the usage limits. Since the permittee already maintains rolling 12-month coating usage records, first year limits do not need to be incorporated into the terms and conditions.

30 NEW SOURCE REVIEW FORM B

PTI Number: 14-04927

Facility ID: 1431150945

FACILITY NAME Riverwood International Corporation

FACILITY DESCRIPTION Two 8-Color Rotogravure Printing

CITY/TWP Cincinnati

Emissions Unit ID: **K002**

- E. With this modification, the federally enforceable terms and conditions in this permit to install will limit the coating usage so that the facility has a potential to emit less than 100 TPY VOC and less than 10 TPY for any single HAP and less than 25 TPY for combined HAPs. Riverwood International Corporation will not be considered a major facility for the purpose of Title V permits or the Emission Offset Policy.

Prepared By: Alberta Mellon

Date Prepared: June 6, 2000

Please fill in the following for this permit:**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	81.1
SO2	0.07
Ammonia	5.92
NOx	11.6
CO	9.8
PM/PM10	0.88