

**CONSTRUCTION PERMIT
OFFICE OF AIR MANAGEMENT**

**Coulter & Son, Inc.
209 York Drive
Middlebury, Indiana 46540**

is hereby authorized to construct

- (a) The addition of two (2) HVLP spray applicators to one (1) Pache spray machine, previously permitted, equipped with dry filters for PM overspray control, known as LINE 1, installed in 1997, exhausted through Stacks S2 a, b, and c, capacity: increased from 1,200 parts per hour to 2,248 parts per hour, a net increase of 1,048 plastic caps per hour.
- (b) One (1) Pache spray machine equipped with four (4) HVLP spray applicators and dry filters for PM overspray control, known as LINE 2, exhausted through Stack S5 a, b, and c, capacity: 2,248 plastic caps per hour.
- (c) One (1) vacuum metalizing process line containing:
 - (1) One (1) natural gas fired flame pre-treatment, exhausted to Stack S6, rated at 0.3 million British thermal units per hour.
 - (2) One (1) flowcoater, exhausted through Stack S7, capacity: 5,400 plastic caps per hour.
 - (3) Two (2) vacuum metalizers, capacity: 5,400 plastic caps per hour.
 - (4) Three (3) electric drying ovens, exhausted to Stack S8, capacity: 5,400 plastic caps per hour.
- (d) Two (2) natural-gas fired space heaters, known as H1 and H2, rated at 0.115 million British thermal units per hour each.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP 039-9998-00454	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

Construction Conditions

General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
 - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
 - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

- (e) Pursuant to 326 IAC 2-7-4, the Permittee shall apply for a Title V operating permit within twelve (12) months after the source becomes subject to Title V. This 12-month period starts at the postmarked submission date of the Affidavit of Construction. If the construction is completed in phases, the 12-month period starts at the postmarked submission date of the Affidavit of Construction that triggers the Title V applicability. The operation permit issued shall contain as a minimum the conditions in the Operation Conditions section of this permit.

Operation Conditions

General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
2. That the permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

Preventive Maintenance Plan

3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
 - (a) In the event that ownership of this plastic spray can cap coating facility is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
 - (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
 - (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:
- (a) Violation of any conditions of this permit.
 - (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
 - (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
 - (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
 - (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM or other public official having jurisdiction.

Annual Emission Reporting

7. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. A copy of this rule is enclosed. The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

Opacity Limitations

8. That pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:
- (a) visible emissions shall not exceed an average of forty (40) percent opacity in twenty-four (24) consecutive readings.
 - (b) visible emissions shall not exceed sixty (60) percent opacity for more than a cumulative total of fifteen (15) minutes (60 readings) in a six (6)-hour period.

9. That pursuant to 326 IAC 6-3 (Process Operations):
- (a) The dry filters for particulate matter overspray control shall be in operation at all times when LINE 1 and LINE 2 are in operation.
 - (b) LINE 1 and LINE 2 shall comply with 326 IAC 6-3-2(c) using the following equation:
$$E = 4.10P^{0.67}$$
 where: E = rate of emission in pounds per hour,
P = process weight in tons per hour.
 - (c) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.
 - (d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Volatile Organic Compound

10. That pursuant to 326 IAC 2-1-3(i)(8), records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of thirty-six (36) months and made available upon request of the Office of Air Management (OAM). Any change or modification which may increase total potential emissions to 250 tons per year from LINE 1, LINE 2 and the vacuum metalizing line covered in this permit shall obtain a Prevention of Significant Deterioration (PSD) permit pursuant to 326 IAC 2-2 before such change may occur.

Hazardous Air Pollutants

- 11.
- (a) The amount of any individual hazardous air pollutant (HAP), including clean up solvent, delivered to the applicators at the Pache spray machine, identified as LINE 2, minus the HAPs solvent shipped out shall be limited to 9.9 tons of per year, based on a twelve (12) consecutive month time period.
 - (b) The amount of any combination of hazardous air pollutants (HAPs), including clean up solvent, delivered to the applicators at the Pache spray machine, identified as LINE 2, minus the HAPs solvent shipped shall be limited to twenty-four (24) tons per year, based on a twelve (12) consecutive month time period.
 - (c) Compliance with the HAPs usage limitations shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer. However, IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
 - (d) During the first twelve (12) months of operation, the input raw material usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed the limit of two (2) tons per month.

- (e) That pursuant to 326 IAC 2-1-3(i)(8), records of HAP quantities shall be maintained for a minimum period of thirty-six (36) months and made available upon request of the Office of Air Management (OAM). Any change or modification which may increase an individual HAP emissions to ten (10) tons per year or combined HAPs emissions to twenty-five (25) tons per year from LINE 1, LINE 2 or the vacuum metalizing line covered in this permit shall obtain a prior approval pursuant to 326 IAC 2-2 before such change may occur.

BACT Synthetic Minor Limitation

- 12. That the input VOC including clean up solvent, minus the VOC solvent shipped out, delivered to the applicators of LINE 1, LINE 2, and vacuum metalizing line shall be limited to twenty-four (24) tons per year, each, for twelve (12) consecutive month time period. Therefore, the Best Available Control Technology (BACT) requirements of 326 IAC 8-1-6 will not apply.

During the first twelve (12) months of operation, the input raw material usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed the limit of two (2) tons per month.

Reporting Requirements

- 13. That a log of information necessary to document compliance with operation permit conditions no.11 and no. 12 shall be maintained. These records shall be kept for at least the past 36-month period and made available upon request to the Office of Air Management (OAM).

- (a) A quarterly summary shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within 30 days after the end of the quarter being reported in the format attached. These reports shall include the coating, thinner and clean up solvent usage, material safety data sheet (MSDS) and the date of use.

- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:
 - (i) Delivered by U.S. mail and postmarked on or before the date it is due; or
 - (ii) Delivered by any other method if it is received and stamped by IDEM, OAM, on or before the date it is due.
- (c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
- (d) Any corrective actions taken as a result of an exceedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.

- (e) The first report shall cover the period commencing the postmarked submission date of the Affidavit of Construction.

Emergency Reduction Plans

14. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within 180 calendar days from the date on which this source commences operation.

- (c) If the ERP is disapproved by IDEM and OAM the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP. If after this time, the Permittee does not submit an approvable ERP, IDEM and OAM shall supply such a plan.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM and OAM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate level. [326 IAC 1-5-3]

COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Coulter & Son, Inc.
 Source Address: 209 York Drive, Middlebury, Indiana 46540
 Mailing Address: 209 York Drive, Middlebury, Indiana 46540
 Part 70 Permit No.: T 039-9998-00454
 Facility: LINE 1, LINE2, vacuum metalizing process line
 Parameter: VOC
 Limit: twenty (24) tons per twelve (12) consecutive month time period each

YEAR: _____

Month	Column 1			Column 2			Column 1 + Column 2		
	This Month			Previous 11 Months			12 Month Total		
	LINE 1	LINE 2	metal-izing line	LINE 1	LINE 2	metal-izing line	LINE 1	LINE 2	metal-izing line

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Coulter & Son, Inc.
Source Address: 209 York Drive, Middlebury, Indiana 46540
Mailing Address: 209 York Drive, Middlebury, Indiana 46540
Part 70 Permit No.: T 039-9998-00454
Facility: LINE 2
Parameter: Individual HAP
Limit: 9.9 tons per twelve (12) consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Coulter & Son, Inc.
Source Address: 209 York Drive, Middlebury, Indiana 46540
Mailing Address: 209 York Drive, Middlebury, Indiana 46540
Part 70 Permit No.: T 039-9998-00454
Facility: LINE 2
Parameter: Combination HAPs
Limit: twenty-four (24) tons per twelve (12) consecutive month period

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone _____

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for New Construction and Operation

Source Background and Description

Source Name: Coulter & Son, Inc.
Source Location: 209 York Drive, Middlebury, Indiana 46540
County: Elkhart
Construction Permit No.: CP 039-9998-00454
SIC Code: 3079
Permit Reviewer: Paula M. Miano

The Office of Air Management (OAM) has reviewed an application from Coulter & Son, Inc. relating to the construction and operation of plastic spray can cap coating facilities. The applicant was issued an Interim Construction Permit effective August 24, 1998 to begin construction on the vacuum metalizing process line. The facilities consist of the following equipment:

- (a) The addition of two (2) HVLP spray applicators to one (1) Pache spray machine, previously permitted, equipped with dry filters for PM overspray control, known as LINE 1, installed in 1997, exhausted through Stacks S2 a, b, and c, capacity: increased from 1,200 parts per hour to 2,248 parts per hour, a net increase of 1,048 plastic caps per hour.
- (b) One (1) Pache spray machine equipped with four (4) HVLP spray applicators and dry filters for PM overspray control, known as LINE 2, exhausted through Stack S5 a, b, and c, capacity: 2,248 plastic caps per hour.
- (c) One (1) vacuum metalizing process line containing:
 - (1) One (1) natural gas-fired flame pre-treatment, exhausted to Stack S6, rated at 0.3 million British thermal units per hour.
 - (2) One (1) flowcoater, exhausted through Stack S7, capacity: 5,400 plastic caps per hour.
 - (3) Two (2) vacuum metalizers, capacity: 5,400 plastic caps per hour.
 - (4) Three (3) electric drying ovens, exhausted to Stack S8, capacity: 5,400 plastic caps per hour.
- (d) Two (2) natural gas-fired space heaters, known as H1 and H2, rated at 0.115 million British thermal units per hour each.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S2 a, b, c	Modified Pache, LINE 1	20	1.5	2,180	70
S5 a, b, c	New Pache, LINE 2	20	1.5	2,180	70
S6	Flame Pretreatment	24	0.5	500	100
S7 a, b	Flowcoater	24	0.75	1,000	Ambient
S8 a, b, c	Electric Ovens	24	0.75	750	145

Enforcement Issue

There are no enforcement actions pending for this source.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Information, unless otherwise stated, used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on August 3, 1998 with additional information received on September 17, 1998.

Emissions Calculations

See Appendix A pages 1 through 4 of 4 (Emissions Calculation Spreadsheets) for detailed calculations.

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/yr)	Potential Emissions (tons/yr)
Particulate Matter (PM)	9.07	9.07
Particulate Matter (PM ₁₀)	9.07	9.07
Sulfur Dioxide (SO ₂)	0.002	0.002
Volatile Organic Compounds (VOC)	110	110
Carbon Monoxide (CO)	0.068	0.068
Nitrogen Oxides (NO _x)	0.226	0.226
Single Hazardous Air Pollutant (HAP)	34.0	34.0
Combination of HAPs	45.3	45.3

- (a) The potential emissions before control are equal to the allowable emissions, therefore, the potential emissions before control are used for the permitting determination.
- (b) Allowable emissions (as defined in the Indiana Rule) of VOC are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

- (c) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and the allowable emissions of any combination of the HAPs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Elkhart County has been classified as attainment or unclassifiable for the remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	3.08
PM ₁₀	3.08
SO ₂	0.002
VOC	24.0
CO	0.087
NO _x	0.376

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the Technical Support Document for CP 039-8332 issued June 17, 1997.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (tons/yr)	PM ₁₀ (tons/yr)	SO ₂ (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO _x (tons/yr)
Proposed Modification	0.117	0.117	0.002	96.0	0.068	0.226
PSD Threshold Level	250	250	250	250	250	250

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

With the addition of the proposed modification this existing source will be subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) VOC is greater than or equal to 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is greater than or equal to 10 tons per year, and
- (c) any combination of HAPs is greater than or equal to 25 tons/year.

This existing source shall apply for a Part 70 (Title V) operating permit within twelve (12) months after the source receives a validation letter to operate under this permit.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source.

Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) and 40 CFR Part 60 applicable to this facility.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) applicable to this facility.

State Rule Applicability

326 IAC 2-1-3.4 (New Source Toxics Control)

Since this modification has the potential to emit greater than ten (10) tons per year of any single HAP and twenty-five (25) tons per year of any combination of HAPs, the requirements of 326 IAC 2-1-3.4 could be applicable. This modification consists of three (3) lines in parallel that produce separate products. LINE 1 and the vacuum metalizing line each have single and combination HAPs below the threshold levels. LINE 2 could be subject to 326 IAC 2-1-3.4 because the potential emissions of a single HAP are greater than ten (10) tons per year. The source has accepted a limit of 9.9 tons per year of a single HAP and a combined limit of twenty-four (24) tons per year on LINE 2. Therefore, the source is not subject to 326 IAC 2-1-3.4.

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 10 tons per year of VOC. Pursuant to this rule, the owner/ operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4.
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 6-3-2 (Particulate Emission Limitations)

The spray operations shall comply with 326 IAC 6-3-2(c). The applicable 326 IAC 6-3-2 equation is as follows: $E = 4.10 P^{0.67}$, where P equals process weight in tons per hour for process weights up to and including sixty thousand (60,000) pounds per hour and E equals the allowable emission rate in pounds per hour.

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

Since the plastic spray can cap coating facilities have the potential to emit more than twenty-five (25) tons per year of VOC, 326 IAC 8-1-6 could be applicable. This modification consists of three (3) distinct lines, known as LINE 1, LINE 2 and the vacuum metalizing process line. The source has agreed to limit VOC emissions from each line to twenty-four (24) tons per year each. Each line operates in parallel and produces separate products. Therefore, this modification will not be required to install BACT.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This modification will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to the Clean Air Act.
- (b) See attached spreadsheets for detailed air toxic calculations.

Conclusion

The construction of this plastic spray can cap coating facilities will be subject to the conditions of the attached proposed **Construction Permit No. CP 039-9998-00454**.

**Appendix A: Potential Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company Name: Coulter & Son, Inc.
Address City IN Zip: 209 York Drive, Middlebury, Indiana 46540
CP: 039-9998
Plt ID: 039-00454
Reviewer: Paula M. Miano
Date Received: August 3, 1998**

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Potential Particulate tons per year	lb VOC /gal solids	Transfer Efficiency	Particulate Removal Efficiency	Maximum Potential Particulate TPY (After Controls)
FLOWCOATER																		
Metalizing Coating (Basecoat)	7.20	61.00%	0.0%	61.00%	0.00%	28.00%	0.0004	2700	4.39	4.39	4.74	113.84	20.78	0.00	15.69	100%	0%	0.00
Topcoat	6.90	70.00%	0.00%	70.00%	0.00%	25.00%	0.0004	2700	4.83	4.83	5.22	125.19	22.85	0.00	19.32	100%	0%	0.00
Subtotal													43.62	0.00				
LINE 1																		
VIRGIN (worst case coating)																		
Golden Metallic*	6.21	69.00%	0.00%	69.00%	0.00%	24.00%	0.0010	1048	4.28	4.28	4.49	107.77	19.67	2.21	17.85	75%	99%	0.02
Multispec**	8.35	70.00%	40.00%	30.00%	40.10%	18.00%	0.0010	1048	4.18	2.51	2.63	63.01	11.50	2.87	13.92	75%	99%	0.03
Reclaimed Multispec																		
(Used with Multispec** listed above)																		
VM & P NAPHTHA	6.25	100.00%	0.00%	100.00%	0.00%	0.00%	0.0002	2248	6.25	6.25	2.81	67.44	12.31	0.00		75%	99%	0.00
Subtotal													23.81	2.87				
LINE 2																		
VIRGIN (worst case coating)																		
Golden Metallic*	6.21	69.00%	0.0%	69.0%	0.0%	24.00%	0.0010	2248	4.28	4.28	9.63	231.18	42.19	4.74	17.85	75%	99%	0.05
Multispec**	8.35	70.00%	40.0%	30.0%	40.1%	18.00%	0.0010	2248	4.18	2.51	5.63	135.15	24.66	6.17	13.92	75%	99%	0.06
Reclaimed Multispec																		
(Used with Multispec** listed above)																		
VM & P NAPHTHA	6.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.0002	2248	6.25	6.25	2.81	67.44	12.31	0.00			99%	0.00
Subtotal													42.19	6.17				
State Potential Emissions	Add worst case coating to all solvents										25.03	600.66	109.62	9.04				0.09

* worst case VOC
**worst case PM

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Total = Worst Coating + Sum of all solvents used

Company Name: Coulter and Son, Inc.
 Address City IN Zip: 209 York Drive, Middlebury, Indiana 46540
 CP: 039-9998
 Pit ID: 039-00454
 Reviewer: Paula M. Miano
 Date Received: August 3, 1998

Material	Product Number	Density (lb/gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Methyl-isobutyl Ketone	Xylene Emissions (tons/yr)	Toluene Emissions (tons/yr)	Methyl-isobutyl Ketone (tons/yr)	Total HAPs per facility (tons/yr)
FLOW COATER											
Metalizing Coating (basecoat)	DP-76	7.20	0.0004	2700	0.0%	0.0%	20.00%	0.00	0.00	6.81	
Topcoat	42T & 42TA	6.90	0.0004	2700	0.0%	8.0%	0.00%	0.00	2.61	0.00	
Subtotal								0.00	2.61	6.81	9.42
LINE 1											
Virgin (worst case coating)											
Golden Metallic	7270	6.21	0.0010	1048	5.0%	35.0%	0.00%	1.43	9.98	0.00	
Mutlispec	86	8.35	0.0010	1048	0.0%	0.0%	0.00%	0.00	0.00	0.00	
RECLAIMED MULTISPEC											
(Used with Mutlispec listed above)											
VM & P NAPTHA	411N	6.30	0.0002	2248	0.0%	0.0%	0.00%	0.00	0.00	0.00	
Subtotal								1.43	9.98	0.00	11.40
LINE 2											
Virgin (worst case coating)											
Golden Metallic	7270	6.21	0.0010	2248	5.0%	35.0%	0.00%	3.06	21.40	0.00	
Mutlispec	86	8.35	0.0010	2248	0.0%	0.0%	0.00%	0.00	0.00	0.00	
RECLAIMED MULTISPEC											
(Used with Mutlispec listed above)											
VM & P NAPTHA	411N	6.3	0.0002	2248	0.0%	0.0%	0.00%	0.00	0.00	0.00	
Subtotal								3.06	21.40	0.00	24.46

Total State Potential Emissions

SUBTOTAL	(tons/yr)	4.483	33.989	6.812
	(lb/hr)	1.023	7.760	1.555
	(g/dec)	0.129	0.978	0.196

TOTAL	(tons/yr)	45.28
HAPS	(lb/hr)	10.34
	(g/dec)	1.30

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emission Calculations
 Natural Gas Combustion Only
 MM Btu/hr 0.3 - < 10
 Commercial Boiler**

Company Name: Coulter & Sons Inc.
Address City IN Zip: 209 York Drive, Middlebury, Indiana 46540
CP: 039-9998
Plt ID: 039-00454
Reviewer: Paula M. Miano
Date: August 3, 1998

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.3

2.6

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	12.0	12.0	0.6	100.0	5.3	21.0
Potential Emission in tons/yr	0.016	0.016	0.001	0.131	0.007	0.028

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low NOx Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND

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

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03

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

**Appendix A: Emission Calculations
 Natural Gas Combustion Only
 MM Btu/hr < 0.3
 Residential Furnaces**

**Company Name: Coulter & Sons Inc.
 Address City IN Zip: 209 York Drive, Middlebury, Indiana 46540
 CP: 039-9998
 Plt ID: 039-00454
 Reviewer: Paula M. Miano
 Date: August 3, 1998**

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.23

2.0

Pollutant

	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	11.2	11.2	0.6	94.0	7.3	40.0
Potential Emission in tons/yr	0.011	0.011	0.001	0.095	0.007	0.040

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 94

Emission Factors for CO: uncontrolled = 40

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

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3.

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