

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

Permit To Install **13-04384**

A. Source Description

Day-Glo Color Corporation is a large facility that manufactures a broad range of fluorescent pigments, ink bases, and dyes. This particular permit is for four new pigment kettles (P026, P027, P028, and P029), as well as a pigment drying system (P030).

B. Facility Emissions and Attainment Status

The facility has demonstrated that HAP emissions generated will be less than the 10 tons/year any single HAP and 25 tons/year any combination of HAPs for the major source thresholds. A Synthetic Minor limitation was established in their Title V permit (issued final on January 23, 2004), which will keep them from being subject to Title V when they renew their operating permit as a FESOP in five years as well as the MACT. Cuyahoga County is in non-attainment for ozone for the new 8-hour standard.

C. Source Emissions

Each pigment kettle has a potential to emit of 0.164 tons/year OC and HAPs. Actual emissions at 0.0253 tons/year OC and HAPs. The PTI Allowable for these emissions units have been set at potential for each unit. The pigment drying system has a potential to emit of 1.14 tons/year OC and HAPs. Actual emissions at 0.82 tons/year OC and HAPs. The PTI Allowable for this emissions unit has been set at potential.

D. Conclusion

Facility Potential to Emit and actual emissions are below the Title V thresholds. The Synthetic Minor limitation in their Title V permit restricts facility-wide HAPs to less than 10 tons/year any single HAP, and 25 tons/year any combination of HAPs, which will keep them from being subject to Title V when they renew their operating permit as a FESOP in five years as well as the MACT.



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 13-04384

Fac ID: 1318006552

DATE: 9/21/2004

Day-Glo Color Corp.
Robert Mitchell
4515 St. Clair Ave.
Cleveland, OH 44103

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1000** will be due. Please do not submit any payment now.

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

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

CLAA

PA

CUYAHOGA COUNTY

PUBLIC NOTICE

**ISSUANCE OF DRAFT PERMIT TO INSTALL 13-04384 FOR AN AIR CONTAMINANT SOURCE FOR
Day-Glo Color Corp.**

On 9/21/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Day-Glo Color Corp.**, located at **4515 St. Clair Ave., Cleveland, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 13-04384:

Installation of new pigment kettles and pigment drying system.

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

David Hearne, Cleveland City Health Department, Division of the Environment, 1925 St. Clair Avenue, Cleveland, OH 44114 [(216)664-2324]



**Permit To Install
Terms and Conditions**

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

DRAFT PERMIT TO INSTALL 13-04384

Application Number: 13-04384
Facility ID: 1318006552
Permit Fee: **To be entered upon final issuance**
Name of Facility: Day-Glo Color Corp.
Person to Contact: Robert Mitchell
Address: 4515 St. Clair Ave.
Cleveland, OH 44103

Location of proposed air contaminant source(s) [emissions unit(s)]:
**4515 St. Clair Ave.
Cleveland, Ohio**

Description of proposed emissions unit(s):
Installation of new pigment kettles and pigment drying system.

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

Day-Glo Color Corp.

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PTI Application: 13-04384

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.9 below if no deviations occurred during the quarter.

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- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

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6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. 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.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit

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shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete

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Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

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

11. 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.

12. 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.

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B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable 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 state-only required 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. 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.

4. 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.

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5. 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 cannot meet the requirements of this permit or cannot meet applicable standards.

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

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form

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if applicable) 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.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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.

C. 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>
OC	2.9
PE	8.95
Single HAP *	9.7
Combined HAPs *	24.7
* facility wide limits	

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

1. Beginning no later than January 1, 2006, the emissions of hazardous air pollutants (HAPs), as defined in Section 112(b) of Title II of Clean Air Act, from all the emissions units at this facility, shall not exceed 9.7 TPY for any individual HAP, as a rolling, 12-month summation, and 24.7 TPY for any combination of HAPs, as a rolling, 12-month summation.
2. Beginning no later than January 1, 2005, the permittee shall use calculation methodologies to estimate HAP emissions for this facility. The following calculations shall be performed monthly:
 - a. The HAP emissions from each of non-insignificant emissions units P026, P027, P028, P029, and P030 shall be calculated as follows:

$$\text{lb product/day} * \text{lb HAP emitted/lb product (from the latest emissions test for the worst case product)} * \text{days of operation/month} * \text{ton/2000 lb} = \text{tons of HAP (formaldehyde)/month}$$

The HAP emission factor will be determined by source testing. Until the results of the formal source testing required by this permit are available, interim values from the most recent diagnostic testing shall be used.
 - b. The HAP emissions for other emissions units at this facility (see Term A.7 for a current list of emissions units) shall be calculated in accordance with the facility terms and contained in Part II of the Title V permit and PTI 13-04335.
3. Beginning no later than January 1, 2005, the permittee shall keep records for each month of the following information:
 - a. Diagnostic and compliance emissions test data (including HAP emission factors) and the hours of operation for emissions units (P026, P027, P028, P029, and P030).
4. Beginning no later than January 1, 2005, the permittee shall keep monthly records for the entire facility of the following information:
 - a. The total facility-wide emissions (and associated calculations) for each individual HAP, in pounds or tons per year (calculated by summing the individual HAP emission rates from all the emissions units at the facility; see Term A.7 for a current list of emissions units).
 - b. The total facility-wide emissions (and associated calculations) for all combined HAPs, in

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pounds or tons per year (calculated by summing all the HAPs emission rates from all the emissions units at the facility; see Term A.7 for a current list of emissions units).

c. The rolling, 12-month summation of the total individual HAP emissions rates for each HAP from all the emissions units at the facility (see Term A.7 for a current list of emissions units), in tons.

d. The rolling, 12-month summation of the total combined HAPs emissions rates from all the emissions units at the facility (see Term A.7 for a current list of emissions units), in tons.

5. Beginning no later than January 1, 2006, the permittee shall submit quarterly deviation (excursion) reports, in accordance with the General Terms and Conditions of this permit, of the following information:

a.. An identification of each month during which the rolling, 12-month emissions rate (from the facility) for an individual HAP exceeded 9.7 tons, and the actual rolling, 12-month summation of each individual HAP emissions rate (From the facility; see Term A.7 for a current list of emissions units) for each such month.

b. An identification of each month during which the rolling, 12-month emissions rate (from the facility) for combined HAPs exceeded 24.7 tons, and the actual rolling, 12-month summation of the combined HAPs emissions rates (from the facility; see Term A.7 for a current list of emissions units) for each such month.

6. Beginning no later than January 31, 2006, the permittee shall submit annual reports that summarize the annual emissions of each individual HAP and the combined emissions of all the HAPs for the facility (see Term A.7 for a current list of emissions units). These reports shall cover the previous calendar year and shall be submitted by January 31 of each year.

7. Current Emissions Units at this facility that emit HAPs include P001, P003, P007, P008, P009, P021, P022, P024, P025, P026*, P027*, P028*, P029*, P030*, T042, T044, and N001.

* To be installed pending issuance of this permit.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None.

Day-G

PTI A

Emissions Unit ID: P026

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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>	
P026 - pigment resin kettle one	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-07(B)(1)
		OAC rule 3745-21-07(G)(2)
	OAC rule 3745-17-11(B)(1)	
	OAC rule 3745-17-08(B)	

Applicable Emissions
Limitations/Control
Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.385 lb/hr and 1.69 tons/year.

Visible particulate emissions (PE) from the scrubber stack shall not exceed 5% opacity as a 6-minute average.

No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Organic compounds (OC) from this emissions unit shall not exceed 0.1 lb/hour and 0.44 ton/year.

See A.1.2.a below.

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The control measures established by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

The visible stack emission limitation established by this rule is less stringent than the visible stack emission

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

The visible fugitive emission limitation established by this rule is less stringent than the visible fugitive emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a** The permittee shall eliminate visible emissions of fugitive dust through the employment of best available control measures in order to prevent the fugitive dust from becoming airborne. These measures shall include, but not be limited to, the following:
- i. The installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust; and
 - ii. collection efficiencies that are sufficient to minimize or eliminate visible emissions of fugitive dust at the points of capture to the extent possible with good engineering design.
- 2.b** The OC emissions and PE from all the equipment comprising this emissions unit shall be vented to the MP process ejector venturi wet scrubber.

II. Operational Restrictions

1. The pressure drop across the MP process ejector venturi wet scrubber shall be maintained at a minimum of 6 inches of water column when the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new pressure drop range based upon the operation of the scrubber during that emissions test.
2. The scrubber liquor recirculation rate for the MP process ejector venturi wet scrubber shall be continuously maintained at a value of not less than 60 gallons per minute at all times while the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum scrubbing liquor recirculation rate based upon the operation of the scrubber during that emissions test.
3. The pH of the scrubber liquor in the MP process ejector venturi wet scrubber, when the emissions unit is in operation, shall be maintained at a minimum value of 10.0. After each round of emissions testing which demonstrated that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum pH value of the scrubber liquor based upon the operation of the scrubbers during that emissions test.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across the MP process ejector venturi wet scrubber, as well as the scrubber flow rate, while the

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emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the MP process ejector venturi wet scrubber, in inches of water column, twice per shift (not less than four hours apart);
 - b. the recirculation rate to the scrubber, in gallons per minute, twice per shift for the fresh make-up city water (not less than four hours apart);
 - c. the down times for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation; and
 - d. the pH.
2. The permittee shall collect and record the following information each day for this emissions unit to calculate the average OC emitted in lbs/hour in accordance with section A.V.1.d:
- a. the name and identification of each product produced;
 - b. the pounds of each product produced per batch;
 - c. the total emissions for all product batches produced, in pounds;
 - d. the number of hours of operation; and
 - e. the average hourly OC emissions rate in pounds per hour.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the non-stack egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the MP process ejector

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venturi wet scrubber serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions unit;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following MP process ejector venturi wet scrubber parameters were not maintained within the required levels:
 - a. the static pressure drop across the scrubber;
 - b. the water flow rate; and
 - c. the pH.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average lbs OC/hour emissions rates (calculated from records maintained by A.III.2 above) did not comply with the OC limitation specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the emissions unit was in operation and the capture (collection) system and/or control device were not in operation.
4. The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the non-stack egress points serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the MP process ejector venturi wet scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A.1 of these terms and conditions shall be

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determined in accordance with the following methods:

- 1.a Emission Limitation:
0.385 pound PE per hour

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B).

- 1.b Emission Limitation:
5% opacity as a 6-minute average (stack)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

- 1.c Emission Limitation:
No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 22. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at all non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

- 1.d Emission Limitation:
0.1 pound OC per hour

Applicable Compliance Method:

The pounds OC per hour may be calculated from records required in Section A.III.3 by using the following formula:

$$(\text{lbs product/day})(\text{lb OC emitted/lb product [from the latest emissions test for the worst case product]})/(\text{hours of operation/day}) = \text{lbs OC emitted/hour}$$

During the last OC emissions test an emission rate of 0.00032 lb/lb of product was documented.

If required, emissions testing shall be performed in accordance with OAC rule 3745-21-10(C).

An emission factor of 0.00032 lb OC emitted per lb product was developed by Day-Glo and their

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consultant, URS, based on post-control continuous monitoring of formaldehyde (HCHO) for January-February 2001. The HCHO concentration used in this calculation was determined by taking the average of the top ten HCHO concentrations recorded in this time frame. All the emissions are assumed to be HCHO. Emissions = duct velocity * density of air * HCHO concentration * operating hours.

- 1.e Emission Limitation:
0.44 ton OC per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

- 1.f Emission Limitation:
1.69 tons PE per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P026, P027, P028, and P029 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions units is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

- a. The emissions testing shall be conducted within 3 months after beginning operation of this emissions unit.
- b. The initial round of emission testing shall be conducted on the outlet of the MP process ejector venturi wet scrubber to demonstrate the OC emission rate (in lbs/hour and lb/lb product) from the MP process ejector venturi wet scrubber stack for the worst case product, to determine the actual PE rate in lbs/hour from the MP process ejector venturi wet scrubber, and to establish proper operating values for the pressure drops, pH, and the scrubber recirculation rates (in gpm) for the scrubber. Also during the first round of testing, if the permittee speciates the organic compounds during the test and demonstrates that all organics emitted are formaldehyde, subsequent OC testing may be conducted for only formaldehyde.

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- c. The following test methods shall be employed: 40 CFR Part 60, Appendix A, Method 316 for formaldehyde, Method 25 for OC, Method 18 to speciate OC, Method 5 for PE, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Division of Air Quality.
- e. Personnel from the Cleveland Division of Air Quality 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 unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland Division of Air Quality within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland Division of Air Quality.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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>	
P027 - pigment resin kettle two	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-07(B)(1)
		OAC rule 3745-21-07(G)(2)
	OAC rule 3745-17-11(B)(1)	
	OAC rule 3745-17-08(B)	

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Applicable Emissions
Limitations/Control
Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.385 lb/hr and 1.69 tons/year.

Visible particulate emissions (PE) from the scrubber stack shall not exceed 5% opacity as a 6-minute average.

No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Organic compounds (OC) from this emissions unit shall not exceed 0.1 lb/hour and 0.44 ton/year.

See A.1.2.a below.

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The control measures established by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation

established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a** The permittee shall eliminate visible emissions of fugitive dust through the employment of best available control measures in order to prevent the fugitive dust from becoming airborne. These measures shall include, but not be limited to, the following:
- i. The installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust; and
 - ii. collection efficiencies that are sufficient to minimize or eliminate visible emissions of fugitive dust at the points of capture to the extent possible with good engineering design.
- 2.b** The OC emissions and PE from all the equipment comprising this emissions unit shall be vented to the MP process ejector venturi wet scrubber.

II. Operational Restrictions

1. The pressure drop across the MP process ejector venturi wet scrubber shall be maintained at a minimum of 6 inches of water column when the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new pressure drop range based upon the operation of the scrubber during that emissions test.
2. The scrubber liquor recirculation rate for the MP process ejector venturi wet scrubber shall be continuously maintained at a value of not less than 60 gallons per minute at all times while the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum scrubbing liquor recirculation rate based upon the operation of the scrubber during that emissions test.
3. The pH of the scrubber liquor in the MP process ejector venturi wet scrubber, when the emissions unit is in operation, shall be maintained at a minimum value of 10.0. After each round of emissions testing which demonstrated that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum pH value of the scrubber liquor based upon the operation of the scrubbers during that emissions test.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across the MP process ejector venturi wet scrubber, as well as the scrubber flow rate, while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

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The permittee shall collect and record the following information each day:

- a. the pressure drop across the MP process ejector venturi wet scrubber, in inches of water column, twice per shift (not less than four hours apart);
 - b. the recirculation rate to the scrubber, in gallons per minute, twice per shift for the fresh make-up city water (not less than four hours apart);
 - c. the down times for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation; and
 - d. the pH.
2. The permittee shall collect and record the following information each day for this emissions unit to calculate the average OC emitted in lbs/hour in accordance with section A.V.1.d:
- a. the name and identification of each product produced;
 - b. the pounds of each product produced per batch;
 - c. the total emissions for all product batches produced, in pounds;
 - d. the number of hours of operation; and
 - e. the average hourly OC emissions rate in pounds per hour.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the non-stack egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the MP process ejector venturi wet scrubber serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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- a. the color of the emissions unit;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following MP process ejector venturi wet scrubber parameters were not maintained within the required levels:
 - a. the static pressure drop across the scrubber;
 - b. the water flow rate; and
 - c. the pH.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average lbs OC/hour emissions rates (calculated from records maintained by A.III.2 above) did not comply with the OC limitation specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the emissions unit was in operation and the capture (collection) system and/or control device were not in operation.
4. The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the non-stack egress points serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the MP process ejector venturi wet scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

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0.385 pound PE per hour

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B).

- 1.b Emission Limitation:
5% opacity as a 6-minute average (stack)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

- 1.c Emission Limitation:
No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 22. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at all non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

- 1.d Emission Limitation:
0.1 pound OC per hour

Applicable Compliance Method:

The pounds OC per hour may be calculated from records required in Section A.III.3 by using the following formula:

$$(\text{lbs product/day})(\text{lb OC emitted/lb product [from the latest emissions test for the worst case product]})/(\text{hours of operation/day}) = \text{lbs OC emitted/hour}$$

During the last OC emissions test an emission rate of 0.00032 lb/lb of product was documented.

If required, emissions testing shall be performed in accordance with OAC rule 3745-21-10(C).

An emission factor of 0.00032 lb OC emitted per lb product was developed by Day-Glo and their consultant, URS, based on post-control continuous monitoring of formaldehyde (HCHO) for January-February 2001. The HCHO concentration used in this calculation was determined by taking the average of the top ten HCHO concentrations recorded in this time frame. All the

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emissions are assumed to be HCHO. Emissions = duct velocity * density of air * HCHO concentration * operating hours.

- 1.e Emission Limitation:
0.44 ton OC per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

- 1.f Emission Limitation:
1.69 tons PE per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P026, P027, P028, and P029 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions units is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

- a. The emissions testing shall be conducted within 3 months after beginning operation of this emissions unit.
- b. The initial round of emission testing shall be conducted on the outlet of the MP process ejector venturi wet scrubber to demonstrate the OC emission rate (in lbs/hour and lb/lb product) from the MP process ejector venturi wet scrubber stack for the worst case product, to determine the actual PE rate in lbs/hour from the MP process ejector venturi wet scrubber, and to establish proper operating values for the pressure drops, pH, and the scrubber recirculation rates (in gpm) for the scrubber. Also during the first round of testing, if the permittee speciates the organic compounds during the test and demonstrates that all organics emitted are formaldehyde, subsequent OC testing may be conducted for only formaldehyde.
- c. The following test methods shall be employed: 40 CFR Part 60, Appendix A, Method 316 for formaldehyde, Method 25 for OC, Method 18 to speciate OC, Method 5 for PE, as

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appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Division of Air Quality.
- e. Personnel from the Cleveland Division of Air Quality 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 unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland Division of Air Quality within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland Division of Air Quality.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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>
P028 - pigment resin kettle three	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-07(B)(1)
	OAC rule 3745-21-07(G)(2)
	OAC rule 3745-17-11(B)(1)
	OAC rule 3745-17-08(B)

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Issued: To be entered upon final issuanceApplicable Emissions_
Limitations/Control
Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.385 lb/hr and 1.69 tons/year.

Visible particulate emissions (PE) from the scrubber stack shall not exceed 5% opacity as a 6-minute average.

No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Organic compounds (OC) from this emissions unit shall not exceed 0.1 lb/hour and 0.44 ton/year.

See A.1.2.a below.

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The control measures established by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation

established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a** The permittee shall eliminate visible emissions of fugitive dust through the employment of best available control measures in order to prevent the fugitive dust from becoming airborne. These measures shall include, but not be limited to, the following:
- i. The installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust; and
 - ii. collection efficiencies that are sufficient to minimize or eliminate visible emissions of fugitive dust at the points of capture to the extent possible with good engineering design.
- 2.b** The OC emissions and PE from all the equipment comprising this emissions unit shall be vented to the MP process ejector venturi wet scrubber.

II. Operational Restrictions

1. The pressure drop across the MP process ejector venturi wet scrubber shall be maintained at a minimum of 6 inches of water column when the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new pressure drop range based upon the operation of the scrubber during that emissions test.
2. The scrubber liquor recirculation rate for the MP process ejector venturi wet scrubber shall be continuously maintained at a value of not less than 60 gallons per minute at all times while the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum scrubbing liquor recirculation rate based upon the operation of the scrubber during that emissions test.
3. The pH of the scrubber liquor in the MP process ejector venturi wet scrubber, when the emissions unit is in operation, shall be maintained at a minimum value of 10.0. After each round of emissions testing which demonstrated that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum pH value of the scrubber liquor based upon the operation of the scrubbers during that emissions test.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across the MP process ejector venturi wet scrubber, as well as the scrubber flow rate, while the

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emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the MP process ejector venturi wet scrubber, in inches of water column, twice per shift (not less than four hours apart);
 - b. the recirculation rate to the scrubber, in gallons per minute, twice per shift for the fresh make-up city water (not less than four hours apart);
 - c. the down times for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation; and
 - d. the pH.
2. The permittee shall collect and record the following information each day for this emissions unit to calculate the average OC emitted in lbs/hour in accordance with section A.V.1.d:
- a. the name and identification of each product produced;
 - b. the pounds of each product produced per batch;
 - c. the total emissions for all product batches produced, in pounds;
 - d. the number of hours of operation; and
 - e. the average hourly OC emissions rate in pounds per hour.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the non-stack egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the MP process ejector venturi wet scrubber serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

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- a. the color of the emissions unit;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following MP process ejector venturi wet scrubber parameters were not maintained within the required levels:
 - a. the static pressure drop across the scrubber;
 - b. the water flow rate; and
 - c. the pH.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average lbs OC/hour emissions rates (calculated from records maintained by A.III.2 above) did not comply with the OC limitation specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the emissions unit was in operation and the capture (collection) system and/or control device were not in operation.
4. The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the non-stack egress points serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the MP process ejector venturi wet scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A.1 of these terms and conditions shall be

determined in accordance with the following methods:

- 1.a Emission Limitation:
0.385 pound PE per hour

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B).

- 1.b Emission Limitation:
5% opacity as a 6-minute average (stack)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

- 1.c Emission Limitation:
No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 22. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at all non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

- 1.d Emission Limitation:
0.1 pound OC per hour

Applicable Compliance Method:

The pounds OC per hour may be calculated from records required in Section A.III.3 by using the following formula:

$$(\text{lbs product/day})(\text{lb OC emitted/lb product [from the latest emissions test for the worst case product]})/(\text{hours of operation/day}) = \text{lbs OC emitted/hour}$$

During the last OC emissions test an emission rate of 0.00032 lb/lb of product was documented.

If required, emissions testing shall be performed in accordance with OAC rule 3745-21-10(C).

An emission factor of 0.00032 lb OC emitted per lb product was developed by Day-Glo and their consultant, URS, based on post-control continuous monitoring of formaldehyde (HCHO) for January-February 2001. The HCHO concentration used in this calculation was determined by taking the average of the top ten HCHO concentrations recorded in this time frame. All the

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emissions are assumed to be HCHO. Emissions = duct velocity * density of air * HCHO concentration * operating hours.

- 1.e Emission Limitation:
0.44 ton OC per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

- 1.f Emission Limitation:
1.69 tons PE per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P026, P027, P028, and P029 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions units is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

- a. The emissions testing shall be conducted within 3 months after beginning operation of this emissions unit.
- b. The initial round of emission testing shall be conducted on the outlet of the MP process ejector venturi wet scrubber to demonstrate the OC emission rate (in lbs/hour and lb/lb product) from the MP process ejector venturi wet scrubber stack for the worst case product, to determine the actual PE rate in lbs/hour from the MP process ejector venturi wet scrubber, and to establish proper operating values for the pressure drops, pH, and the scrubber recirculation rates (in gpm) for the scrubber. Also during the first round of testing, if the permittee speciates the organic compounds during the test and demonstrates that all organics emitted are formaldehyde, subsequent OC testing may be conducted for only formaldehyde.

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- c. The following test methods shall be employed: 40 CFR Part 60, Appendix A, Method 316 for formaldehyde, Method 25 for OC, Method 18 to speciate OC, Method 5 for PE, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Division of Air Quality.
- e. Personnel from the Cleveland Division of Air Quality 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 unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland Division of Air Quality within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland Division of Air Quality.

VI. Miscellaneous Requirements

None.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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>	
P029 - pigment resin kettle four	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-07(B)(1)
		OAC rule 3745-21-07(G)(2)
	OAC rule 3745-17-11(B)(1)	
	OAC rule 3745-17-08(B)	

Applicable Emissions
Limitations/Control
Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.385 lb/hr and 1.69 tons/year.

Visible particulate emissions (PE) from the scrubber stack shall not exceed 5% opacity as a 6-minute average.

No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Organic compounds (OC) from this emissions unit shall not exceed 0.1 lb/hour and 0.44 ton/year.

See A.1.2.a below.

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The control measures established by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

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

pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation established by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

Issued: To be entered upon final issuance**2. Additional Terms and Conditions**

- 2.a** The permittee shall eliminate visible emissions of fugitive dust through the employment of reasonably available control measures (RACM) in order to prevent the fugitive dust from becoming airborne. These measures shall include, but not be limited to, the following:
- i. The installation and use of hoods, fans, and other equipment to adequately enclose, contain, capture, and vent the fugitive dust; and
 - ii. collection efficiencies that are sufficient to minimize or eliminate visible emissions of fugitive dust at the points of capture to the extent possible with good engineering design.
- 2.b** The OC emissions and PE from all the equipment comprising this emissions unit shall be vented to the MP process ejector venturi wet scrubber.

II. Operational Restrictions

1. The pressure drop across the MP process ejector venturi wet scrubber shall be maintained at a minimum of 6 inches of water column when the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new pressure drop range based upon the operation of the scrubber during that emissions test.
2. The scrubber liquor recirculation rate for the MP process ejector venturi wet scrubber shall be continuously maintained at a value of not less than 60 gallons per minute at all times while the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum scrubbing liquor recirculation rate based upon the operation of the scrubber during that emissions test.
3. The pH of the scrubber liquor in the MP process ejector venturi wet scrubber, when the emissions unit is in operation, shall be maintained at a minimum value of 10.0. After each round of emissions testing which demonstrated that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum pH value of the scrubber liquor based upon the operation of the scrubbers during that emissions test.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop

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across the MP process ejector venturi wet scrubber, as well as the scrubber flow rate, while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the MP process ejector venturi wet scrubber, in inches of water column, twice per shift (not less than four hours apart);
 - b. the recirculation rate to the scrubber, in gallons per minute, twice per shift for the fresh make-up city water (not less than four hours apart);
 - c. the down times for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation; and
 - d. the pH.
2. The permittee shall collect and record the following information each day for this emissions unit to calculate the average OC emitted in lbs/hour in accordance with section A.V.1.d:
- a. the name and identification of each product produced;
 - b. the pounds of each product produced per batch;
 - c. the total emissions for all product batches produced, in pounds;
 - d. the number of hours of operation; and
 - e. the average hourly OC emissions rate in pounds per hour.
3. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the non-stack egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the

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weather conditions allow, for any visible particulate emissions from the MP process ejector venturi wet scrubber serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions unit;
- b. the total duration of any visible emission incident; and
- c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following MP process ejector venturi wet scrubber parameters were not maintained within the required levels:
 - a. the static pressure drop across the scrubber;
 - b. the water flow rate; and
 - c. the pH.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the average lbs OC/hour emissions rates (calculated from records maintained by A.III.2 above) did not comply with the OC limitation specified above.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the emissions unit was in operation and the capture (collection) system and/or control device were not in operation.
4. The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
5. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the non-stack egress points serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the MP process ejector venturi wet scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

- 1.a Emission Limitation:
0.385 pound PE per hour

Applicable Compliance Method:

If required, compliance with the mass emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B).

- 1.b Emission Limitation:
5% opacity as a 6-minute average (stack)

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.

- 1.c Emission Limitation:
No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Applicable Compliance Method:

If required, compliance with the visible emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 22. For purposes of verifying compliance with this limitation, visible emission observations shall be performed at all non-stack egress points (e.g., windows, doors, roof monitors) serving this emissions unit.

- 1.d Emission Limitation:
0.1 pound OC per hour

Applicable Compliance Method:

The pounds OC per hour may be calculated from records required in Section A.III.3 by using the following formula:

$$(\text{lbs product/day})(\text{lb OC emitted/lb product [from the latest emissions test for the worst case product]})/(\text{hours of operation/day}) = \text{lbs OC emitted/hour}$$

During the last OC emissions test an emission rate of 0.00032 lb/lb of product was documented.

If required, emissions testing shall be performed in accordance with OAC rule 3745-21-10(C).

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An emission factor of 0.00032 lb OC emitted per lb product was developed by Day-Glo and their consultant, URS, based on post-control continuous monitoring of formaldehyde (HCHO) for January-February 2001. The HCHO concentration used in this calculation was determined by taking the average of the top ten HCHO concentrations recorded in this time frame. All the emissions are assumed to be HCHO. Emissions = duct velocity * density of air * HCHO concentration * operating hours.

- 1.e Emission Limitation:
0.44 ton OC per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

- 1.f Emission Limitation:
1.69 tons PE per year

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

2. The permittee shall conduct, or have conducted, emission testing for one of the following identical emissions units* in accordance with the requirements below.

*(Emissions units P026, P027, P028, and P029 are identical emissions units. The permittee may test one of these emissions units and the results will be representative of the emissions for each of the identical emissions units. After one of these identical emissions units is stack tested, one other emissions unit may be stack tested in the next required stack testing cycle.)

- a. The emissions testing shall be conducted within 3 months after beginning operation of this emissions unit.
- b. The initial round of emission testing shall be conducted on the outlet of the MP process ejector venturi wet scrubber to demonstrate the OC emission rate (in lbs/hour and lb/lb product) from the MP process ejector venturi wet scrubber stack for the worst case product, to determine the actual PE rate in lbs/hour from the MP process ejector venturi wet scrubber, and to establish proper operating values for the pressure drops, pH, and the scrubber recirculation rates (in gpm) for the scrubber. Also during the first round of testing, if the permittee speciates the organic compounds during the test and demonstrates that all organics emitted are formaldehyde, subsequent OC testing may be conducted for

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only formaldehyde.

- c. The following test methods shall be employed: 40 CFR Part 60, Appendix A, Method 316 for formaldehyde, Method 25 for OC, Method 18 to speciate OC, Method 5 for PE, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Division of Air Quality.
- e. Personnel from the Cleveland Division of Air Quality 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 unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland Division of Air Quality within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland Division of Air Quality.

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

- 2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. 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>	
P030 - pigment drying system	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B)(1)
		OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-07(B)(1)
	OAC rule 3745-17-08(B)	
	OAC rule 3745-21-07(G)(2)	

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Issued: To be entered upon final issuanceApplicable Emissions
Limitations/Control
Measures

Particulate emissions (PE) from this emissions unit shall not exceed 0.5 lb/hr and 2.19 tons/year.

Visible particulate emissions (PE) from the scrubber stack shall not exceed 5% opacity as a 6-minute average.

No visible emissions of fugitive dust from the non-stack egress points serving this emissions unit.

Organic compounds (OC) from this emissions unit shall not exceed 0.26 lb/hour and 1.14 tons/year.

See A.I.2.a

The control measures established by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

The emissions limitation established by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation

established by this rule is as stringent as the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emissions limitation established by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

The emissions limitation established by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of best available control measure in order to prevent the fugitive dust from becoming airborne.
- 2.b** The OC and emissions PE from all the equipment comprising this emissions unit shall be vented to the Tri-Mer Wet scrubber and packed tower scrubber designated for this emissions unit.

II. Operational Restrictions

1. The pressure drop across the Tri-Mer Whirl Wet scrubber shall be maintained at a minimum of 6 inches of water column when the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new pressure drop range based upon the operation of the scrubber during that emissions test.
2. The scrubber recirculation rate for the Tri-Mer Whirl Wet scrubber shall be maintained at a minimum of 60 gallons per hour. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum based upon the operation of the scrubber during that emissions test.
3. The pressure drop across the packed tower scrubber shall be maintained within 4-10 inches of water column when the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new pressure drop range based upon the operating of the scrubber during that emissions test.
4. The scrubber liquor recirculation rate of the packed tower scrubber shall be maintained at a minimum of 12 gallons per minute (gpm) when the emissions unit is in operation. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum scrubber liquor recirculation rate based upon the operation of the scrubber during that emissions test.
5. The pH of the scrubber liquor in the packed tower scrubber, when the emissions unit is in operation, shall be maintained at a minimum of 10.0. After each round of emissions testing which demonstrate that the emissions unit was operating in compliance with the applicable requirements, the permittee may establish a new minimum pH value of the scrubber liquor based upon the operation of the scrubbers during that emissions test.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly operate and maintain equipment to monitor the static pressure drop

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across the Tri-Mer Whirl Wet scrubber, as well as the scrubber water flow rate, while the emissions unit is in operation. The monitoring devices and any recorders shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the Tri-Mer Whirl Wet scrubber, in inches of water column, twice per shift (not less than 4 hours apart);
 - b. the recirculation rate to the scrubber, in gallons per minute, twice per shift for the fresh make-up city water (not less than 4 hours apart); and
 - c. the down times for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit was in operation.
2. The permittee shall properly operate and maintain equipment to monitor the static pressure drop across the packed tower scrubber, as well as to monitor the scrubber recirculation rate and pH, while the emissions unit is in operation. The monitoring devices shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the scrubber, in inches of water column, twice per shift (not less than 4 hours apart);
 - b. The scrubber liquor recirculation rate, in gallons per minute, twice per shift (not less than 4 hours apart);
 - c. the pH; and
 - d. the down times for the capture (collection) system, control device, and monitoring equipment when the associated emissions unit is in operation.
3. The permittee shall collect and record the following information each day for this emissions unit to calculate the average OC emitted in lbs/hour in accordance with section A.V.1.d:
- a. the name and identification of each product produced;
 - b. the pounds of each product produced per batch;

- c. the total OC emissions for all product batches produced, in pounds;
 - d. the number of hours of operation; and
 - e. the average hourly OC emissions rate in pounds per hour.
4. The permittee shall perform daily checks, when the emissions unit is in operation, for any visible emissions of fugitive dust from the non-stack egress points serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to minimize or eliminate the visible emissions.
5. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the packed tower scrubber serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emissions incident; and
 - c. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following Whirl Wet scrubber parameters were not maintained within the required levels:
 - a. the static pressure drop across the scrubber; and
 - b. the water flow rate.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following packed tower scrubber parameters did not comply with the requirements specified above:
 - a. the pressure drop across the scrubber;
 - b. the scrubbing liquor recirculation rate to the scrubber; and
 - c. the pH.
3. The permittee shall submit quarterly deviation (excursion) reports that identify each day during

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which the average lbs OC/hour emissions rates (calculated from records maintained by A.III.3 above) did not comply with the OC limitation specified above.

4. The permittee shall submit quarterly deviation (excursion) reports that identify each day during which the emissions unit was in operation and the capture (collection) system and/or control device were not in operation.
5. The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.
6. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions were observed from the packed tower scrubber serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. The reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.
7. The permittee shall submit semiannual written reports that (a) identify all days during which any visible emissions of fugitive dust were observed from the non-stack egress points serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible emissions of fugitive dust. These reports shall be submitted to the Cleveland Division of Air Quality by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:
0.5 pound PE per hour

Applicable Compliance Method:
If required, compliance with the mass emission limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5 and the procedures specified in OAC rule 3745-17-03(B).
 - 1.b Emission Limitation:
0.26 pound OC per hour

Applicable Compliance Method:
The pounds OC per hour may be calculated from records required in Section A.III.3 by using the following formula:

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(lbs product/day)(lb OC emitted/lb product [from the latest emissions test for the worst case product])/hours of operation/day) = lbs OC emitted/hour

If required, emissions testing shall be performed in accordance with OAC rule 3745-21-10(C).

An emission rate of 0.26 lb OC/hour (uncontrolled rate of 13 lbs/hr with 98% control) was developed based upon the prior process operator's emission testing and lab-scale analysis.

- 1.c Emission Limitation:
1.14 ton OC per year

Applicable Compliance Method:

The annual emissions limitation was established by multiplying the hourly emissions rate by 8,760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

- 1.d Emissions Limitation:
2.19 ton PE per year

Applicable Compliance Method:

The annual emissions limitation was established by multiplying the hourly emissions rate by 8,760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements.
- a. The emissions testing shall be conducted within 3 months after beginning operation of this emissions unit.
 - b. The initial round of emission testing shall be conducted on the outlet of the packed tower scrubber to demonstrate the OC emission rate (in lbs/hour and lb/lb product) from the packed tower scrubber stack for the worst case product, to determine the actual PE rate in lbs/hour from the packed tower scrubber, and to establish proper operating values for the pressure drops, pH, and the scrubber recirculation rates (in gpm) for both scrubbers. Also during the first round of testing, if the permittee speciates the organic compounds during the test and demonstrates that all organics emitted are formaldehyde, subsequent OC testing may be conducted for only formaldehyde.
 - c. The following test methods shall be employed: 40 CFR Part 60, Appendix A, Method 316 for formaldehyde, Method 25 for OC, Method 18 to speciate OC, Method 5 for PE, as

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appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The tests shall be conducted while this emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Division of Air Quality.
- e. Personnel from the Cleveland Division of Air Quality 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 unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland Division of Air Quality within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Cleveland Division of Air Quality.

VI. Miscellaneous Requirements

None.

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PTI A

Emissions Unit ID: P030

Issued: To be entered upon final issuance**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

- 2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.