

**PROPOSED GENERAL PLAN APPROVAL AND/OR GENERAL OPERATING PERMIT  
(BAQ-GPA/GP – 25)**

**HEATSET WEB OFFSET LITHOGRAPHIC PRINTING PRESSES**

**1. Statutory Authority and General Description**

In accordance with Section 6.1(f) of the Pennsylvania Air Pollution Control Act (APCA), 35 P.S. § 4006.1(f), 25 Pa. Code §§ 127.514 (relating to general operating permits at Title V facilities) and 127.611 (relating to general plan approvals and general operating permits), the Department of Environmental Protection (“Department”) hereby issues this General Plan Approval and/or General Operating Permit (“General Permit”) for heatset web offset lithographic printing presses (“heatset web presses”).

**2. Applicability/Source Coverage Limitations**

This General Permit authorizes the construction, modification and/or operation of any heatset web press with the following limitations:

Heatset web press having ink oil emissions exceeding five (5) pounds per hour shall be connected to an oxidizer capable of complying with the emission limitations specified in Condition 15 of this General Permit. In order to qualify for coverage under this General Permit, all of the emissions from the presses and dryers must be captured and sent to the oxidizers.

Control systems for the emissions from the dryers will not be required if ink oil emissions from the Heatset web presses are less than or equal to five pounds per hour.

This General Permit does not apply if the construction, modification, and/or operation of the heatset web press qualifies for an exemption under 25 Pa. Code §§127.14 (relating to exemptions) or 127.449 (relating to de minimis emission increases).

If any heatset web press at a facility cannot be regulated under this General Permit, a Plan Approval and/or Operating Permit issued by the Department in accordance 25 Pa. Code, Chapter 127, Subchapter B (relating to plan approval requirements) and/or Subchapter F (relating to operating permit requirements) will be required. If the facility is a Title V facility, a Title V Operating Permit issued in accordance with 25 Pa. Code, Chapter 127, Subchapters F and G (relating to Title V operating permits) will be required.

**Prohibited Use**

This General Permit has been established in accordance with 25 Pa. Code Chapter 127, Subchapter H (relating to general plan approvals and general operating permits) and is not applicable to:

- a. Any stationary air contamination source that is subject to 25 Pa. Code Chapter 127, Subchapter D (relating to prevention of significant deterioration);
- b. Any stationary air contamination source that is subject to 25 Pa. Code Chapter 127, Subchapter E (relating to new source review);

- c. Any stationary air contamination source that is subject to 25 Pa. Code Chapter 127, Subchapter G (relating to Title V operating permits).

### **Plan Approval**

This General Permit establishes best available technology (BAT) requirements and authorizes the construction or modification of any heatset web press that meets the BAT requirements established under 25 Pa. Code §§ 127.1 and 127.12(a)(5).

The installation or modification of each heatset web press that meets the following criteria is exempt from plan approval requirements if the press:

- a. Emits volatile organic compounds (VOCs) at a rate less than 2.7 tons per year (tpy);
- b. Emits a single hazardous air pollutant (HAP) at a rate less than 1 tpy; and
- c. Emits a combination of hazardous air pollutants (HAPs) at rates less than 2.5 tons of all HAPs combined per year.

For purposes of this General Permit, BAT for heatset web presses shall include the requirements specified in Conditions 15 (b),(c) and (d) of this General Permit. The modification of a heatset web press includes the addition of or any physical change of a printing unit, coating unit, oxidizer or other changes that would increase VOC or HAP emissions from the heatset web press above the exemption levels specified above in (a) through (c).

### **Operating Permit**

This General Permit authorizes the operation of a heatset web press unless the respective operation is located at a facility that has or is required to have an Operating Permit issued by the Department under 25 Pa. Code, Chapter 127, Subchapter F, or 25 Pa. Code Chapter 127, Subchapters F and G. A heatset web press that is constructed or modified under this General Permit and located at a facility that is subject to 25 Pa. Code, Chapter 127, Subchapter F, or Subchapters F and G, may, however, be operated under this General Permit on a temporary basis until the Operating Permit required under 25 Pa. Code, Chapter 127, Subchapter F, or Subchapters F and G, if applicable, has been obtained or amended to include the terms and conditions of this General Permit.

Once authorization to use this General Permit is granted, operation may proceed provided the owner or operator notifies the Department in accordance with Condition 7 of the General Permit.

### **3. Municipal Notifications:**

As required under section 1905-A of the Administrative Code, a facility owner or operator proposing to use the General Plan Approval/ General Operating Permit shall submit a copy of the application to each municipality in which the sources will be constructed, modified or operated under the BAQ-GPA/GP-25 General Permit.

#### **4. Application for Use**

Pursuant to *25 Pa. Code* § 127.621 (relating to application for use of general plan approvals and general operating permits), any person proposing to construct, operate or modify a heatset web press under the General Permit shall notify the Department using the BAQ-GPA/GP-25 General Permit Application and shall receive prior written approval from the Department before construction or modification may commence. This application shall be accompanied by the appropriate application fee, proof of municipal notification and any additional forms and information requested by the Department. The Department will take action on the complete application within thirty (30) days of receipt.

Authorization to operate under this General Permit will be granted by the Department for the specific source and location described in the application.

Words and terms that are not otherwise defined in this General Permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. §4003) and *25 Pa. Code* §121.1.

#### **5. Compliance**

The owner or operator authorized to use BAQ-GPA/GP-25 shall comply with the specifications in the application and terms and conditions of the General Permit. The owner or operator shall keep copies of the General Permit and applications at the facility and shall make them available to the Department upon request.

The potential to emit of any heatset web press proposing to operate under this General Permit shall be limited by the information including, but not limited to, the hours of operation, production rate, etc., as provided in the application. The heatset web press shall be:

- a. Operated in such a manner as not to cause air pollution, as that term is defined in *25 Pa. Code* § 121.1;
- b. Operated and maintained in a manner consistent with good operating and maintenance practices;
- c. Operated and maintained in accordance with practices based on the “manufacturer's specifications”; and
- d. Operated and maintained such that no owner or operator permits the emission into the outdoor atmosphere of any malodorous air contaminants from any source, that the malodors are detectable outside the property of the owner or operator on whose land the facility is being operated in accordance with *25 Pa. Code* §123.31 (relating to limitations).

#### **6. Modification, Suspension and Revocation**

This General Permit may be modified, suspended, or revoked if the Department determines that the heatset web press cannot be adequately regulated under this General Permit.

Any authorization to construct and/or operate a heatset web press under this General Permit may be suspended or revoked if the Department determines that, at any time, the owner or operator has failed to construct and/or operate the respective heatset web

press in compliance with the terms and conditions of this General Permit or information identified in the application. Upon suspension or revocation of authorization to construct and/or operate a heatset web press under this General Permit, construction shall immediately be ceased and/or the respective heatset web press shall not thereafter be operated until the Department grants approval, in writing.

## **7. Notice Requirements**

The applications and notifications required by *25 Pa. Code* §127.621 and Condition 4 of this General Permit shall be submitted to the appropriate DEP Regional Office responsible for issuing general permits in the county in which the heatset web press is, or will be, located. In accordance with §127.621(b), the application shall be either hand delivered or sent by certified mail, return receipt requested.

The owner or operator shall notify the Department, in writing, of the owner's or operator's intent to commence operation of the respective heatset web press at least five (5) business days prior to commencement of operation. When the heatset web press involves multiple sources on different time schedules, notice is required for the commencement of operation of each source.

**Malfunctions:** The owner or operator shall notify the Department by telephone within twenty-four (24) hours of the discovery of any malfunction of any heatset web press operating pursuant to this General Permit, which results in, or may possibly be resulting in, the emission of air contaminants in excess of any applicable limitation specified herein or in excess of the limitations specified in any applicable rule or regulation contained in *25 Pa. Code*, Chapters 121 through 145, or which otherwise results in, or may possibly be resulting in, noncompliance with the requirements specified in any applicable condition of this General Permit. If the owner or operator is unable to provide notification to the appropriate Regional Office within twenty-four (24) hours of discovery of a malfunction due to a weekend or holiday, the notification shall be made to the Department by no later than 4 p.m. on the first business day for the Department following the weekend or holiday. In addition, the owner or operator shall provide whatever subsequent written report the Department may request regarding any reported malfunction.

## **8. Term of Authorization to Use General Permit**

The authorization to construct and/or operate any heatset web press under this General Permit is granted for a fixed term of five (5) years except that the authorization to construct a heatset web press will expire eighteen (18) months from the date of Department authorization if the owner or operator fails to commence construction. If construction commences within eighteen (18) months of the date of receipt of authorization from the Department, but it is not yet completed, the authorization to construct the heatset web press under this General Permit is automatically extended, provided there is no subsequent lapse in construction activity of eighteen (18) months or more, up to a maximum of five years from the date of Department authorization.

The Department will notify the owner or operator, in writing, when authority to construct and/or operate under this General Permit is granted.

## **9. Fees**

The General Permit establishes the following fees:

- a. General Plan Approval application fee:

One thousand dollars (\$1,000)

A new application and fee, as indicated above, is required each time the owner or operator installs or modifies any heatset web press. The installation or modification of any heatset web press must be conducted according to the terms and conditions of this General Permit.

- b. General Operating Permit fees to be submitted along with General Plan Approval application:

Three hundred seventy-five dollars (\$375)

- c. Annual operating permit administration fee, payable on an annual basis:

Three hundred seventy-five dollars (\$375)

The fees shall be paid on or before March 1<sup>st</sup> of each calendar year for the previous calendar year.

- d. General Operating Permit renewal fee payable every five years:

Three hundred seventy-five dollars (\$375)

## **10. Expiration and Renewal of Authorization**

The owner's or operator's right to construct and/or operate under this General Permit terminates on the date of expiration of the authorization granted by the Department to construct and/or operate under this General Permit unless a complete renewal application is submitted to the Department at least thirty (30) days prior to the expiration date of the authorization.

Upon receipt by the Department of a timely and complete application for renewal to operate under this General Permit, the owner or operator may continue to operate the respective heatset web press subject to final action by the Department on the renewal application, provided that the heatset web press is operated in compliance with all terms and conditions of this General Permit. However, this authorization shall cease to exist if the owner or operator fails to submit, by the deadline specified by the Department, any information required by the Department to process the renewal application.

## **11. Applicable Laws**

Nothing in this General Permit relieves the owner or operator of his obligation to comply with all applicable Federal, state and local laws and regulations. The issuance of this General Permit does not prevent the future adoption by the Department of any rules, regulations or standards, or the issuance of orders necessary to comply with the requirements of the federal Clean Air Act or the APCA or regulations adopted under the acts to achieve or maintain ambient air quality standards. The issuance of this General Permit shall not be construed to limit the Department's enforcement authority.

## 12. Public Records and Confidential Information

- a. The records, reports or information obtained by the Department under this General Permit shall be available to the public, except as provided in paragraph (b) of this condition.
- b. Upon cause shown by the owner or operator that the records, reports or information, or a particular portion thereof, but not emission data, to which the Department has access under the APCA, if made public, would divulge production or sales figures or methods, processes or production unique to that person or would otherwise tend to affect adversely the competitive position of that person by revealing trade secrets, including intellectual property rights, the Department will consider the record, report or information, or particular portion thereof confidential in the administration of the APCA. The Department will implement this section consistent with sections 112(d) and 114(c) of the federal Clean Air Act (42 U.S.C.A. §§ 7412(d) and 7414(c)). Nothing in this section prevents disclosure of the report, record or information to federal, state or local representatives as necessary for purposes of administration of federal, state or local air pollution control laws, or when relevant in a proceeding under the act.

## 13. Transfer of Ownership

The owner or operator may not transfer the authorization to construct and/or operate a heatset web press under this General Permit to another owner or operator. A subsequent owner or operator must submit a new General Permit application and fee in accordance with Conditions 4 and 9 of this General Permit.

## 14. Definitions

For purposes of this General Permit, the following definitions apply:

- a. Alcohol - A class of compounds containing a single hydroxyl group OH. When used as a fountain solution additive for offset lithographic printing, the term includes: ethanol, n-propanol, and isopropanol.
- b. Alcohol Substitutes - Nonalcohol additives that contain VOCs and are used in the fountain solution. The term includes additives used to reduce the surface tension of water or prevent piling (ink build-up).
- c. Automatic Blanket Wash System - Equipment used to remotely clean lithographic blankets which may include, but is not limited to those utilizing a cloth and expandable bladder, brush, spray, or impregnated cloth system.
- d. Batch - A supply of fountain solution that is prepared and used without alteration until completely used or removed from the printing process. For the purposes of this general permit, this term includes solutions that are either prepared in discrete batches or solutions that are continuously blended with automix units.
- e. Cleaning Solution - Liquid solvents or solutions used to remove ink and debris from the operating surfaces of the printing press and its parts.
- f. Dampening System - Equipment used to deliver the fountain solution to the lithographic plate.

- g. Fountain Solution - A mixture of water, non-volatile printing chemicals, and an additive (liquid) that reduces the surface tension of the water so that it spreads easily across the printing plate surface. The fountain solution wets the non-image area so that the ink is maintained within the image areas. Non-volatile additives may include but not be limited to mineral salts and hydrophilic gums. For the purpose of this general permit, the additives may include a VOC content of 5.0% or less. Alcohol and alcohol substitutes, including isopropyl alcohol, glycol ethers, and ethylene glycol, are the most common VOC additives used to reduce the surface tension of the fountain solution.
- h. Inking System - A series of rollers used to meter the ink onto the lithographic plate. The system can include agitators, pumps, and totes and other types of ink containers.
- i. Lithography - A planographic printing process where the image and non-image areas are chemically differentiated; the image area is oil receptive and the non-image area is water receptive. This method differs from other printing methods, where the image is typically printed from a raised or recessed surface.
- j. Heatset - A lithographic printing process where the printing inks are set with the use of heat. Traditional heatset inks set and dry by evaporation of the ink oils.
- k. Heatset dryer - A device used in lithography to heat the printed substrate and to promote the evaporation of ink oils.
- l. Offset - A printing process that transfers the ink film from the lithographic plate to an intermediary surface (blanket), which, in turn, transfers the ink film to the substrate.
- m. Press - A printing production assembly composed of one or more units used to produce a printed substrate or a web. The term includes any associated coating, adhesive application, or infra-red heating units.
- n. Unit - The smallest complete printing component composed of inking and dampening systems of a printing press.
- o. VOC Composite Partial Vapor Pressure - The sum of the partial pressure of the compounds defined as VOCs. VOC composite partial pressure is calculated as follows:

$$PP_c = \sum_{i=1}^n \frac{(W_i)(VP_i) / MW_i}{\frac{W_w}{MW_w} + \frac{W_c}{MW_c} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:

$W_i$  = Weight of the "i"th VOC compound, in grams

$W_w$  = Weight of water, in grams

$W_c$  = Weight of exempt compound, in grams

$MW_i$  = Molecular weight of the "i"th VOC compound, in g/g-mole

$MW_w$  = Molecular weight of water, in g/g-mole

$MW_c$  = Molecular weight of exempt compound, in g/g-mole

$PP_c$  = VOC composite partial pressure at 20°C, in mm Hg

$VP_i$  = Vapor pressure of the "i"th VOC compound at 20°C, in mm Hg

- p. Web - A continuous roll of paper used as the printing substrate in a printing process.

**15. Limitations and Requirements (Including Best Available Technology)**

- a. The addition of any new printing press or any modification to the existing heatset web press connected to an existing oxidizer that was constructed after July 1, 1972, but prior to the effective date of this General Permit and had a valid plan approval pursuant to 25 *Pa. Code* § 127.11, shall comply with the BAT established pursuant to 25 *Pa. Code* §§ 127.1 and 127.12(a)(5), in the previously issued plan approval.
- b. Any heatset web press with an oxidizer as described in Condition 2 that is constructed after the effective date of this General Permit, and a facility constructed after July 1, 1972, but prior to the effective date of this General Permit and for which no plan approval was obtained pursuant to 25 *Pa. Code* § 127.11, shall comply with the following BAT requirements:
  - i. The emissions from the press and dryer shall be captured and controlled by an oxidizer with a non-methane hydrocarbon (NMHC) destruction and removal efficiency of at least 98.0% or a post-control NMHC concentration of 20 ppmvd or less as methane (CH<sub>4</sub>), whichever is less stringent.
  - ii. For presses utilizing an integrated dryer and oxidizer, the post-control NMHC concentration shall be 20 ppmvd or less as CH<sub>4</sub>.
- c. Any owner or operator operating heatset web press with oxidizer(s) as described in Condition 2 that are authorized to use to this General Permit shall maintain the oxidizer temperature at or above the Department approved set-point operating temperature on any 3-hour average to demonstrate compliance with Condition 15 (a) or (b) of this General Permit.
- d. The owner or operator of any heatset web press authorized to use to this General Permit shall comply with the following limitations and requirements:
  - i. Heatset Dryers  

Any heatset web press subject to this General Permit must be operated with the dryer air pressure lower than the pressroom air pressure such that air flows into the dryer at all times when the press is operating.
  - ii. Fountain Solutions  

Any heatset web press subject to this General Permit shall meet one of the following requirements for the fountain solution used on that press:

    1. The as-applied VOC content of the fountain solution must be maintained at or below 1.6% by weight;
    2. The as-applied VOC content of the fountain solution must be maintained at or below 3.0%, by weight; refrigerate the fountain solution to 60°F or less;



3. The as-applied VOC content of the fountain solution must be maintained at or below 5.0%, by weight, and use no alcohol in the fountain solution.

iii. Blanket and Roller Cleaning Solutions

Any blanket and roller cleaning solution used on a heatset web press subject to this General Permit shall meet one of the following requirements:

1. VOC content, as applied, must be less than or equal to 30% by weight;
2. VOC composite partial vapor pressure, as used, must be less than or equal to 10 mm Hg at 20°C (68°F);
3. Cleaning solutions not meeting Conditions 15 (d)( iii)(1) or ( 2) are permitted provided that the quantity used does not exceed 55 gallons over any (12) twelve consecutive months.

e. Visible and Odor Emission Limitations

- i. Any heatset web press with a pollution control system shall not emit visible air contaminants in such a manner that the opacity of the emissions is equal to or greater than 10% for a period or periods aggregating more than three (3) minutes in any one hour or equal to or greater than 30% at any time.
- ii. For any press without an oxidizer, visible air contaminants shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 20% for a period or periods aggregating more than three (3) minutes in any one hour or equal to or greater than 60% at any time.
- iii. Operation of the heatset web press shall not cause any odor emissions in such a manner that the malodors are detectable outside the property of the owner or operator as specified in 25 *Pa. Code* §123.31.

**16. Performance Testing of Control System(s) and Dryer(s)**

Any owner or operator operating a heatset web press with an oxidizer as described in Condition 2 of this General Permit shall comply with the following requirements:

- a. The owner or operator shall perform a stack test within one hundred eighty (180) days after the initial start-up of the heatset web press connected to a new oxidizer to establish the destruction and removal efficiency of the control device and demonstrate compliance with the requirements of Condition 15(b) of this General Permit. For any heatset web press connected to an existing oxidizer, stack testing shall be required only if the press will increase flow rate to the oxidizer or if the owner or operator establishes a lower set-point operating temperature that is no lower than the manufacturer's recommended minimum operating temperature for the oxidizer.
- b. The owner or operator shall perform a stack test in accordance with 25 *Pa. Code* Chapter 139, the current revision of the Department's Source Testing Manual and the following methods and requirements:
  - i. Methods in Appendix A of 40 CFR Part 60 or any alternate methods approved by the Department:

1. Methods 1 through 4 shall be used to determine the volumetric flow rate of the effluent entering and exiting the air pollution control device.
  2. Method 25A shall be used to determine the total hydrocarbon (THC) concentration.
  3. Method 18 shall be used to determine the methane concentration of the effluent entering and exiting the air control device.
- ii. Testing shall be conducted under normal or representative operating conditions. Such operating conditions should strive to minimize downtime while running as many presses as practicable, when a common control device is serving multiple presses. Because activities such as cycling of automatic blanket washing systems, press speed variations, web breaks or other short-term events in which the print quality is being checked, may be a part of normal, representative operations, sampling should continue during these short-term events while the control device is being tested.
  - iii. The following process data shall be recorded during each test run to document the operation of the heatset web press:
    1. Line speed (fpm)
    2. Web width
    3. Ink usage
    4. Number of colors
    5. Press downtime (minutes)
  - iv. The following data shall be recorded in fifteen (15) minute intervals during each test run to document the operation of the oxidizer:
    1. Oxidizer inlet temperature (°F) (for catalytic oxidizer only)
    2. Oxidizer operating temperature (°F) (for thermal oxidizer only)
- c. Dryers shall be demonstrated to operate at a negative pressure relative to the surrounding by using such devices as differential pressure gauge, smoke stick or aluminum ribbons.
  - d. An oxidizer set-point operating temperature shall be set at the time of initial testing with demonstrating performance by complying with the emission limits stipulated in Condition 15 (b) of this General Permit. The set-point operating temperature for the oxidizer(s) shall be an average of temperature values recorded at least once per fifteen (15) minute interval during a three (3) hour block of the test. Under no circumstances shall the oxidizer(s) have a set-point operating temperature lower than the manufacturer's recommended minimum operating temperature. The Department shall approve the set-point operating temperature.
  - e. An excursion shall be identified as any three (3) hour average temperature that is up to 50°F below the set-point operating temperature.

## 17. Testing of Fountain Solutions

The owner or operator of any heatset web press subject to this General Permit shall determine the VOC content of fountain solution by one of the following procedures:

- a. Analysis by USEPA Method 24 of a fountain solution sample;

- b. Material safety data sheets (MSDS), Certified product data sheets (CPDS), or other data provided by the manufacturer that indicates the VOC content;
- c. Calculation which combines USEPA Method 24 analytical VOC content data for the concentrated materials used to prepare the press-ready fountain solution and records of the proportions in which they are mixed. The calculation shall only be performed once for each type of press-ready fountain solution and kept in the form of a batch log. The analysis of the concentrated fountain solution may be performed by the supplier(s) of those materials.

## **18. Testing of Blanket and Roller Cleaning Solutions**

The owner or operator of any heatset web press subject to this General Permit shall determine the VOC content or VOC composite partial vapor pressure of cleaning solutions by one of the following procedures:

- a. Analysis by USEPA Method 24 of a cleaning solution sample for VOC content or by an appropriate method for composite partial vapor pressure;
- b. Material safety data sheets (MSDS), Certified product data sheets (CPDS), or other data provided by the manufacturer that indicates the VOC content and/or VOC composite partial vapor pressure;
- c. Calculation which combines USEPA Method 24 analytical VOC content data for the concentrated materials used to prepare the press-ready cleaning solution and records of the proportions in which they are mixed. The calculation shall only be performed once for each press-ready cleaning solution and kept in the form of a batch log. The analysis of the concentrated cleaning solution may be performed by the supplier(s) of those materials;
- d. Calculation for VOC composite partial vapor pressure which combines analytical VOC vapor pressure data for the concentrated materials used to prepare the press-ready cleaning solution and records of the proportions in which they are mixed. The analysis and vapor pressure determinations of the concentrated material may be performed by the suppliers of the material.

## **19. Sampling and Testing**

- a. At least sixty (60) calendar days prior to commencing an emission testing program required by this General Permit, a Test Protocol shall be submitted to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office for review and approval. The Test Protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual. The emissions testing shall not commence prior to receipt of a protocol acceptance letter from the Department.
- b. At least fifteen (15) calendar days prior to commencing an emission testing program required by this General Permit, written notification of the date and time of testing shall be provided to the Department's appropriate Regional Office. Notification, in writing, shall also be sent to the Department's Bureau of Air Quality, Division of Source Testing and Monitoring. The Department is under no obligation to accept the results of any testing performed without adequate advance written notice to the Department of such testing. Notification shall also be sent to the

Department's Division of Source Testing and Monitoring so that an observer may be present.

- c. Within fifteen (15) calendar days after completion of the on-site testing portion of an emission test program required by this General Permit, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring at [RA-epstacktesting@state.pa.us](mailto:RA-epstacktesting@state.pa.us) and the appropriate Regional Office indicating the completion date of the on-site testing.
- d. A complete test report shall be submitted to the Department no later than sixty (60) calendar days after completion of the on-site testing portion of an emission test program required by this General Permit.
- e. A complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or non-compliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
  - i. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings;
  - ii. Permit number(s) and condition(s) which are the basis for the evaluation;
  - iii. Summary of results with respect to each applicable permit condition; and
  - iv. Statement of compliance or non-compliance with each applicable permit condition.
- f. All submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- g. All testing shall be performed in accordance with 25 Pa. Code Chapter 139 (relating to sampling and testing).
- h. All submittals, except notifications, shall be accomplished through PSIMS\*Online available through <https://www.depgreenport.state.pa.us/ecommm/Login.jsp>. If internet submittal is not feasible, one (1) copy of the submittal shall be sent to the appropriate Pennsylvania Department of Environmental Protection Regional Office and to the attention of the Department's Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12<sup>th</sup> Floor Rachel Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.
- i. The owner or operator shall ensure that all applicable federal reporting requirements are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between federal and state laws and regulation, the permittee shall comply with the most stringent provision, term, condition, method or rule
- j. If, at any time, the Department has reason to believe that the air contaminant emissions from the heatset web press is, or may be, in excess of any applicable air contaminant emission limitation, the owner or operator shall conduct such stack tests or source tests as are deemed necessary by the Department to determine the actual air contaminant emission rate. The owner or operator shall, upon the request of the Department, provide input material analyses, or input material

samples used in any heatset web press authorized to operate under this general permit.

- k. Subsequent compliance testing of the control system(s) shall be conducted every five (5) years and whenever different operating conditions (e.g., new or different equipment or control devices) may adversely affect compliance with the emissions standards.

## **20. Monitoring, Recordkeeping, and Reporting**

The owner or operator shall comply with applicable monitoring, recordkeeping and reporting requirements set forth in 25 *Pa. Code* Chapter 139 (relating to sampling and testing), the APCA, the Clean Air Act, and the applicable regulations under the acts.

## **21. Monitoring Requirements for Control System(s) and Dryer(s)**

- a. The owner or operator shall install, calibrate, maintain, and operate a temperature monitoring and recording system. Temperatures shall be monitored and recorded continuously by an analog or digital recording device. The temperature monitoring equipment shall be equipped with a continuous recorder and shall have an accuracy of  $\pm 1.0\%$  of the temperature measured.
  - i. For catalytic oxidizer(s), the temperature monitoring equipment shall monitor the catalyst bed inlet temperature.
  - ii. For thermal oxidizer(s), the temperature monitoring equipment shall monitor the oxidizer(s) combustion chamber/zone temperature(s).
- b. Dryer static pressure shall be monitored at least once a day to assure proper airflow and negative pressure inside the dryer.

## **22. Monitoring Requirements for Automatic Blanket Wash Systems**

The owner or operator using an automatic blanket wash system that mixes cleaning solution at the point of application must demonstrate compliance with the VOC limitation in Condition 15 (d)(iii) of this General Permit and shall document that flow meters or fixed volume spray systems result in the VOC content or VOC composite partial vapor pressure of the mixed solution complies with Condition 15(d)(iii).

## **23. Monitoring Requirements for Visible and Odor Emissions**

- a. Visible emissions may be measured using either a device approved by the Department and maintained to provide accurate opacity measurements, or by an observer trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.
- b. The owner or operator shall perform monitoring of the facility at least once per operating day for the presence of visible emission and malodors.
- c. If any deviations from the visible or odor emissions standards in Condition 15(e) of this General Permit are apparent, the owner or operator shall take immediate action to eliminate them. Any such deviations shall be reported to the facility

management or individual designated by the owner or operator and recoded in a permanent log.

- d. If the visible emissions are still not in compliance after the corrective action, the operations of the heatset web press shall be ceased until the owner or operator can verify compliance with the standards specified in Condition 15(e)(i), (ii) or (iii) of this General Permit. The owner or operator shall notify the Department of the event in accordance with Condition 7.

## **24. Recordkeeping Requirements**

- a. The owner or operator shall record:
  - i. Continuously the catalytic bed inlet temperature.
  - ii. Continuously the combustion chamber/zone operating temperatures.
  - iii. All 3-hour blocks of time (when the emissions unit was in operation) during which the average operating temperature for an oxidizer was up to 50°F below the set-point operating temperature, which is defined as excursion in Condition 16(e) of this General Permit.
  - iv. All observations made for recommended work practices listed under Conditions 26 (a)(ii) through (viii).
  - v. Any downtime for the capture (collection) system, control device, and monitoring equipment.
  - vi. For each heatset web offset lithographic ink or conventional varnish used: the monthly consumption in pounds or gallons; the percent by weight VOC and HAP content, as applied; and, an estimate of VOC and HAP emissions. Alternately, the ink with the highest VOC and HAP content may be used to represent all inks used by all heatset web presses.
  - vii. For each fountain solution and additive: the monthly consumption in pounds or gallons; the percent by weight or weight to volume ratio (lbs/gal) VOC and HAP content and an estimate of VOC and HAP emissions. Alternately, the fountain solution and additive with the highest VOC and HAP content may be used to represent all inks used by all heatset web presses.
  - viii. For each blanket and roller cleaning solution used: the monthly consumption in pounds or gallons; the percent by weight or weight to volume ratio (lbs/gal) VOC and HAP content and an estimate of VOC and HAP emissions. Alternately, the blanket and roller cleaning solution with the highest VOC and HAP content may be used to represent all inks used by all heatset web presses.
  - ix. For each month of operation, the volume of all cleaning solution used which does not meet Condition 15(d)(iii)(1) or (2) of this General Permit.
  - x. For each month of operation, an estimate of VOC and HAP emissions during the latest 12 months (using a 12 month rolling average recordkeeping system).

- xi. Monthly usage of natural gas, propane or any other cleaner fuel.
  - xii. Results of daily stack observation and inspection around the facility property as required in Condition 23.
- b. Pursuant to 25 Pa. Code § 135.5, air contamination source owners or operators shall maintain and make available to the Department, upon request, any records as may be necessary to demonstrate compliance with 25 Pa. Code § 135.3 (relating to reporting). These records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. The records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

## 25. Reporting Requirements

- a. The owner or operator of a heatset web press with an oxidizer subject to this General Permit shall submit semiannual written reports of the following to the Department's Regional Office responsible for authorizing the use of the General Permit:
- i. Any excursions that have been detected;
  - ii. The probable cause of such excursions; and
  - iii. Any corrective actions or preventive measures that have been taken.

A semiannual reporting period shall begin after each performance test of an oxidizer. Submission of a semiannual report is not required if excursions are not detected during the period.

- b. Pursuant to 25 Pa. Code § 135.3, a person who owns or operates an air contamination source which is subject to 25 Pa. Code, Chapter 135 and who has previously been advised by the Department to submit an annual emissions report shall submit by March 1 of each year an emission report for the previous year. The report shall include information for all previously reported air contamination sources, new air contamination sources that were first operated during the preceding calendar year and air contamination sources modified during the same period that were not previously reported.
- c. A person who receives initial notification by the Department that an emission report is necessary shall submit the report within sixty (60) days after receiving notification or by March 1 of the year following the year for which the report is due, whichever is later.

## 26. Work Practice Standards

- a. **Control System(s) and Dryer(s)**
- i. The owner or operator must maintain the oxidizer(s) at or above the Department approved set-point operating temperature at all times to demonstrate reasonable assurance of compliance.

- ii. The owner or operator shall take immediate corrective action in response to an excursion as defined in Condition 16(e) of this General Permit. If in spite of the corrective action the operating temperature cannot be brought above the set-point operating temperature as established in accordance with Condition 16(d) the operation of the heatset web press shall cease until the situation is corrected.
- iii. The catalyst bed material shall be inspected annually for general catalyst condition and any signs of potential catalyst depletion as recommended by the manufacturer. The owner or operator shall also collect a representative sample of the catalyst from the oxidizer, per manufacturer's recommendations, and have it tested annually to evaluate the catalyst's capability to continue to function at or above the stipulated destruction and removal efficiency. Selection of the testing company and procedures shall be in accordance with catalyst manufacturer's recommendations. Inspections of the catalyst bed shall also be conducted when temperatures recorded indicate a problem with the bed. An evaluation of the catalyst bed material shall be conducted whenever the results of the inspection indicate signs of potential catalyst depletion or poor catalyst condition based on manufacturer's recommendations.
- iv. For regenerative oxidizers, the chamber sequencing valves shall be assessed for leakage annually. This assessment may be comprised of an internal inspection, or other method of assessment for leakage.
- v. For recuperative oxidizers, the heat exchangers shall be assessed for leakage annually. This assessment may be comprised of an internal inspection, or other method of assessment for leakage.
- vi. Burners shall be inspected and adjusted annually for proper operations.
- vii. Dryers shall be maintained and operated according to the manufacturer's recommendations.
- viii. Dryers shall be inspected and tested semiannually, or whenever the location of dryer is disrupted to assure that it is operating at a negative pressure relative to the surrounding pressroom to verify compliance with Condition 16 (c) of this General Permit.
- ix. Natural gas, propane or any cleaner fuel shall be used as fuel.
- x. The heatset web press with oxidizer(s) shall be provided with interlock(s) to assure operation in conjunction with oxidizer(s) only.

**b. Solvent Laden Shop Towels**

The owner or operator shall keep all solvent laden shop towels in a closed container when not being used.

**c. Solvent Containers**

The owner or operator shall keep all solvent containers closed at all times unless filling, draining, or performing cleanup operations.



**27. Start-up and Shut-down Exclusion:**

The limitations stated in Condition 15(a) or (b) of this General Permit shall apply at all times except during periods of start-up and shut-down of the oxidizer(s), provided, however, that the duration of start-up and shut-down do not exceed two hours per occurrence.

**28. Circumvention**

- a. The owner or operator, or any other person, may not circumvent the new source review requirements of *25 Pa. Code* Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.
  
- b. No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this plan approval, the APCA or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

Approved by: \_\_\_\_\_

Joyce E. Epps  
Director  
Bureau of Air Quality

Date approved: \_\_\_\_\_