

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

N320527999

FACILITY: PACKAGING PERSONIFIED, INC.		SRN / ID: N3205
LOCATION: 122 SOUTH ASPEN STREET, SPARTA		DISTRICT: Grand Rapids
CITY: SPARTA		COUNTY: KENT
CONTACT: Allen Kupres, Plant Manager		ACTIVITY DATE: 12/02/2014
STAFF: Jenifer Dixon	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: The purpose of this inspection was to complete a scheduled inspection and to determine the facility's compliance with all applicable Air Quality Rules and Regulations and permit No. 401-96E.		
RESOLVED COMPLAINTS:		

This was an announced inspection of Packaging Personified on December 2, 2014. The reason this inspection was announced was because a stack test was scheduled for the same time. Facility staff was aware that a compliance inspection would be taking place at the same time. An "Environmental Inspections" brochure was previously offered, but not during this inspection time.

The purpose of this inspection was to complete a scheduled inspection and to determine the facility's compliance with all applicable Air Quality Rules and Regulations and permit No. 401-96E.

JD arrived in the area of the facility at 9:00AM and left at 4:30PM. The majority of this time was spent observing the destruction efficiency test of the new RTO. No objectionable odors or opacity were observed during the inspection time. Mr. Allen Kupres, Quality Manager, provided pertinent information regarding the facility and the operations contained therein at various points during the inspection.

Packaging Personified is a manufacturer of printed plastic bags. The bags are manufactured through a plastics extrusion process where plastic, heat and gentle air pressure are applied to extrude and form a bulk product that is rolled and then processed further. The plastic extrusion process is exempt from Rule 201 permitting under Rule 286(a).

After the plastic is extruded it is printed to customer specifications via one of the two printing processes. These two processes are covered under permit No. 401-96E and will be further discussed below. After printing is complete the bags are cut to size in one of three (3) slitting and rewinding machines and or one of eleven (11) converting machine. The bags are then packaged and shipped.

## **PERMIT NO. 401-96E**

### **FGFLEXOPRINT**

This flexible group contains two flexotechnica 57" wide 8-color flexographic printing presses and associated natural gas fired drying ovens. Emissions are captured via a NFE associated with each printing line. The two lines are controlled by a RTO.

#### **I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	15.4 TPY	12-month rolling time period as determined at the end of each calendar month	FGFLEXOPRINT	SC VI.4 SC VI.5	R 336.1702(a)
2. Hydrotreated Light Distillate (CAS No. 64742-47-8)	420 lb/yr	12-month rolling time period as determined at the end of each calendar month	FGFLEXOPRINT	SC VI.4 SC VI.5	R 336.1225(1)

## Comments:

1. *Since this is a new permit, 12 months of data have not yet been collected. The VOCs reported for January 2014 through October 2014 are 5.31 tons. This is well below the permitted limit.*
2. *The facility reported 35.9 pounds of hydrotreated light distillate for the same time period. Also, well below the permitted limit.*

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. All waste inks, solvents, reducers, and other material (materials) shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1225, R 336.1702(a))**

*This is being done in accordance with the permit condition.*

2. The permittee shall not operate FGFLEXOPRINT unless a malfunction abatement plan (MAP) as described in Rule 911(2), for satisfactory operation of the NFE and the RTO, has been submitted within 60 days of permit issuance, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
  - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1225, R 336.1702(a), R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

*The MAP has been received by the AQD and found to be acceptable. JD requested specific records for September 2014. These were reviewed and appear to meet the requirements of the conditions 2(a) – 2 (c).*

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate FGFLEXOPRINT unless the NFE is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the NFE is operating at a pressure lower than all adjacent areas, so that air flows into the NFE through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1225, R 336.1702(a))**

*JD observed the NFE test and the units appear to be installed and operating in a satisfactory manner.*

2. The permittee shall not operate FGFLEXOPRINT unless the RTO is installed, maintained and operated in

a satisfactory manner. Satisfactory operation of the RTO requires a minimum VOC destruction efficiency of 96 percent (by weight), and maintaining a minimum temperature of 1475°F at the inlet of the thermal oxidizer. **(R 336.1225, R 336.1702(a), R 336.1910)**

*At the time of the inspection, the RTO temperature was checked numerous times. At all times during the inspection the temperature was operating well above the required temperature.*

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The VOC content of any material, as received and as applied, shall be determined using federal Reference Test Method 24 or 24A pursuant to Rule 1040(5). Upon prior written approval by the AQD District Supervisor, VOC content may be determined from manufacturer's formulation data. If the Method 24 or 24A and the formulation values should differ, the Method 24 or 24A results shall be used to determine compliance. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

*This is being done in accordance with the permit condition.*

2. Within 180 days after start-up of the new RTO, verification of the destruction efficiency of the RTO, by testing at owner's expense, in accordance with Department requirements will be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of capture efficiency and destruction efficiency includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1225, R 336.1702(a), R 336.1910)**

*This test was ongoing at the time of the inspection and is well within the time frame allowed by the permit.*

3. Within 60 days from issuance of this permit, the initial capture efficiency performance test of the NFE and quarterly basis thereafter, the permittee shall verify that the direction of air flow at each NDO for FGFLEXOPRINT is into the NFE. The verification of the direction of air flow at the NDOs shall be conducted using the smoke tube test method, or an alternate method approved by the AQD Technical Programs Unit and District Office. The permittee shall submit a notice of the anticipated test date to the AQD Technical Programs Unit and District Office no later than 30 days prior to the test date and a complete test report shall be submitted to the AQD Technical Programs Unit and District Office within 30 days after the completion of the testing. All test methods, plans, and procedures shall be approved by the AQD prior to testing. After two consecutive tests demonstrate that the direction of air flow at all NDOs is into the NFE, the permittee may request that the testing schedule be revised to a less frequent time period as approved by the AQD District Supervisor. **(R 336.1225, R 336.1702(a))**

*During the inspection, JD also observed the first one of these tests to be completed by the facility. The test was successful and fulfilled the obligations of the permit condition. The test results are included in this report, but will also be discussed further in an additional MACES report.*

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 21st day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1225, R 336.1702(a))**

*This has been completed as required by the permit condition.*

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device at the combustion chamber inlet of the RTO to monitor and record the temperature on a continuous basis, during operation of FGFLEXOPRINT. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. **(R 336.1225, R 336.1702(a), R 336.1910)**

*At the time of the inspection, the unit was installed and appeared to be operating properly. Because the*

*destruction efficiency test was ongoing at the time of the inspection, JD observed the monitor on several occasions throughout the day.*

3. The permittee shall keep, in a satisfactory manner, operating temperature records for the RTO, as required by SC VI.2. If the measured operating temperature of the RTO falls below 1475°F during operation of FGFLEXOPRINT, compliance may be demonstrated based upon a three-hour average temperature, by calculating the average operating temperature for each three hour period which includes one or more temperature readings below 1475°F. All records and calculations shall be kept on file and made available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1910)**

*As stated above, the unit was observed several times during the inspection and testing period. At all times the temperature readout was above 1475°F and the continuous recorder was in operation. JD also requested that Mr. Kupres supply a couple days worth of temperature recordings. These were provided and appear to show compliance with the condition.*

4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file and made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702(a))**

*This is being done as required by the permit condition.*

5. The permittee shall keep the following information on a monthly basis for FGFLEXOPRINT:
  - a) The type of each material used. This includes but is not limited to inks, fountain solutions, blanket wash/press wash or cleaning solvents, adhesives, ink-jet inks, makeup solvents, UV coatings, purge and clean-up solvents.
  - b) The VOC content of each material.
  - c) The usage rate (in pounds or gallons) of each material.
  - d) The reclaim or disposal amount (in pounds or gallons) of each material.
  - e) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
  - f) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
  - g) Hydrotreated light distillate mass emission calculations determining the monthly emission rate in pounds per calendar month.
  - h) Hydrotreated light distillate mass emission calculations determining the annual emission rate in pounds per 12 month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1225(1), R 336.1702(a))**

*These records are being kept as required by the permit condition.*

## **VII. REPORTING**

NA

## **VIII. STACK/VENT RESTRICTIONS**

*This section details the stack height and diameter restrictions for the emission unit. Based on visual observations of the stack, the dimensions listed in the permit appear to coincide with the actual dimensions. The stack was not physically measured.*

## **IX. OTHER REQUIREMENTS**

NA

NOTE: Please see attached records for more specific information.

Based on observations made at the time of the inspection and the subsequent review of the records supplied to JD by Mr. Kupres, Packaging Personified appears to be in compliance with Permit No. 401-96E and all other applicable Air Quality Rules and Regulations.

NAME 

DATE 12-11-14

SUPERVISOR PARB

