# DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

# **ACTIVITY REPORT: Scheduled Inspection**

A421623559

FACILITY: Rogers Printing Inc		SRN / ID: A4216
LOCATION: 3350 Main St, RAVENNA		DISTRICT: Grand Rapids
CITY: RAVENNA		COUNTY: MUSKEGON
CONTACT: Jeff Raap , Manufacturing Manager		ACTIVITY DATE: 10/29/2013
STAFF: Jenifer Dixon	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
	nis inspection was to complete a PCE for a scheduled ins Rules and Regulations and Opt-out Permit No. 114-01B	
RESOLVED COMPLAINTS:		

This was a partial compliance evaluation (PCE) associated with a required stack testing activity. All process related conditions will be evaluated, but records will not be reviewed until after the stack test results are received. The records review will be considered another PCE. The two looked at together will comprise a full compliance evaluation.

The purpose of this inspection was to complete a PCE for a scheduled inspection and to determine the facility's compliance with all applicable Air Quality Rules and Regulations and Opt-out Permit No. 114-01B as well as to observe the stack test on the new control device.

JD arrived in the area of the facility at approximately 9:00AM. No odors or excess opacity were observed. The stack test was already underway. The test was conducted by The Stack Test Group and attended by JD, Jeremy Howe, AQD TPU, Bruce Connell, Consultant, and Jeff Raap, Manufacturing Manager for Rogers Printing. Mr. Raap also provided pertinent information about the facility and the operations contained therein during the PCE and the stack test.

Rogers Printing has chosen to take synthetic minor source emission limits. Therefore, although their potential to emit is over major source thresholds, 100 tons volatile organic compounds (VOC's), 10 tons hazardous air pollutants (HAPs) and 25 tons aggregate HAPs, the facility has taken limits to stay out of the Title V program. The facility is an Opt-out source with a permit that will further discussed below. The facility is a printing facility that primarily prints newspaper pull-out ads and magazines. The Opt-out permit associated with the facility covers all of the printing equipment and associated control equipment.

## STACK TEST INFO

As stated above, the stack test attendees were Jeremy Howe, AQD TPU, Bruce Connell, Consultant, Jeff Raap, Manufacturing Manager for Rogers Printing, as well as three employees from the Stack Test Group.

The test required involved doing three separate one hour runs at as close to maximum capacity as possible. During the three runs, the destruction efficiency of the new RTO was to be measured. The result would be the average of the three tests and cannot be less than 98% destruction. Based on preliminary numbers, the test appears to meet the destruction requirements of the permit, but an exact destruction will not be known until the stack test report is submitted by the testers.

In MACES, see report No. ST 24475176 for more specific information about the stack test.

**OPT-OUT PERMIT NO. 114-01B - Printing Operations** 

The opt-out has three emission units. The emissions units and the conditions associated with them are as follows:

#### FGOFFSET1

This emission unit consists of all of the smaller printing equipment. This includes, the ATF, the Heidelberg-0I, EU- Chief (small off-set/imprinting center), and EU-Miscellaneous. The ATF was taken out of commission. EU-Chief is three presses that all vent to the in-plant environment. EU-Miscellaneous consists of the bindery, pre-press, and adhesive operations. The bindery uses a hot-melt adhesive to do a perfect binding on some of the printed literature. The hot-melt portion is vented externally and the filter on the exhaust is changed on an as needed basis.

## I. EMISSION LIMITS

1. VOCs are limited to 10 tons of VOCs per 12 month rolling average.

As stated previously, this will be evaluated during a separate PCE.

## II. MATERIAL LIMITS

N/A

## III. PROCESS/OPERATIONAL RESTRICTIONS

1. All VOC-containing inks, fountain solution, cleaning solvents such as blanket and roller washes, used shop towels, etc. (materials) shall be stored in closed containers and shall be handled / disposed of in an acceptable manner, in compliance with all applicable state Air Quality rules and federal Air Quality regulations.

Based on observations made at the time of the inspection, this appears to be completed as required by the permit.

## IV. DESIGN/EQUIPMENT PARAMETERS

N/A

## V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.

1. The permittee shall verify the VOC content of any ink, fountain solution, cleaning solvent, flash oil, etc.(material), as received and as applied, using federal Reference Test Method 24 (inks, coatings, fountain solution additives and cleaning solvents) or 24A (only applies to solvent-borne inks and related coatings used in the publication rotogravure industry) 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.

During a previous inspection, JD observed a signed statement by the manufacturer of the inks that the inks are tested using Method 24. The facility has requested and been approved to use manufactures formulation data in lieu of Method 24.

## VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

- 1. The permittee shall keep the following information for FGOFFSET1 on a calendar month basis:
  - a) The type of material.
  - b) The VOC content of each material with water (in percent by weight or pounds per gallon) as received and as applied.
  - c) The usage rate (in pounds or gallons) of each material as applied.
  - d) The amount (in pounds) of blanket wash reclaimed.
  - e) VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records on file in a format acceptable to the AQD District Supervisor and make them available to the Department upon request.

As stated previously, this will be evaluated during a separate PCE.

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material including the weight percentage of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both.

As stated previously, this will be evaluated during a separate PCE.

# VII. REPORTING

N/A

# VIII. STACK/VENT RESTRICTIONS

N/A

## IX. OTHER REQUIREMENTS

N/A

## FGOFFSET2

This emission unit contains all of the large printing equipment and control equipment, including the Heidelberg-02 single web printer, the M-200 printer, and the RTO.

## I. EMISSION LIMITS

1. VOCs are limited to 4.3 pph based on a test protocol.

As stated previously, this will be evaluated during a separate PCE.

2. VOCs are limited to 17.8 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

As stated previously, this will be evaluated during a separate PCE.

## II. MATERIAL LIMITS

N/A

## III. PROCESS/OPERATIONAL RESTRICTIONS

1. All VOC-containing inks, fountain solution, cleaning solvents such as blanket and roller washes, used shop towels, etc. (materials) shall be stored in closed containers and shall be

handled / disposed of in an acceptable manner, in compliance with all applicable state Air Quality rules and federal Air Quality regulations.

Based on observations made at the time of the inspection, this is being completed as required by the permit condition.

- 2. The permittee shall handle all VOC and/or HAP containing materials, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.
  - Based on observations made at the time of the inspection, this is being completed as required by the permit condition.
- 3. All printing press-related cleaning solvents shall have composite partial vapor pressures that do not exceed 10 mmHg @ 20°C (68°F).
  - This information is stored in the MSDS and manufactures formulation data sheets. These sheets are checked to ensure compliance with this condition.
- 4. The permittee shall not operate the regenerative thermal oxidizer (RTO) for FGOFFSET2 unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 90 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 FGOFFSET2 and RTO 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.
  - d) A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions per SC numbers III.1 and III.2.

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.

Based on observations made at the time of the inspection, as well as a review of the MAP, this is being done as required by the permit condition.

## IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGOFFSET2 unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum a VOC destruction efficiency of 98 percent (by weight), a minimum retention time of 0.5 seconds and a minimum combustion temperature of 1500°F. The minimum combustion chamber temperature may be adjusted based on the most recent acceptable stack test which achieved a minimum overall destruction efficiency of 98 percent, and which is specified in the MAP required in SC III.4.

At the time of the inspection, testing was being completed to ensure that the destruction efficiency was being met. All other requirements of this condition are being complied with as required.

2. The permittee shall install, calibrate, maintain and operate a temperature monitoring device in the combustion chamber of theRTO in a satisfactory manner. The monitoring device shall monitor and record the temperature on a continuous basis during the operation of FGOFFSET2.

Based on observations made at the time of the inspection, this is being completed as required by the permit condition.

# V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.

1. The permittee shall verify the VOC content of any ink, fountain solution, cleaning solvent, flash oil, etc.(material), as received and as applied, using federal Reference Test Method 24 (inks, coatings, fountain solution additives and cleaning solvents) or 24A (only applies to solvent-borne inks and related coatings used in the publication rotogravure industry) 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.

During a previous inspection, JD observed a signed statement by the manufacturer of the inks that the inks are tested using Method 24. The facility has requested and been approved to use manufactures formulation data in lieu of Method 24.

2. Within 180 days of startup of the RTO, the permittee shall verify, by testing at the owner's expense and in accordance with Department requirements, the destruction efficiency of the RTO. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. Verification of the destruction efficiency includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.

As previously stated, this test was being completed (on time) during the inspection.

3. Upon request from the AQD District Supervisor, the permittee shall verify, by testing at the owner's expense and in accordance with Department requirements, the short-term (lb/hr) VOC emission rate. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. Verification of the short-term (lb/hr) VOC emission rate includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.

This testing is not being required at this time. No further action is necessary.

## VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition.

As stated previously, this will be evaluated during a separate PCE.

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each VOC containing material, including the weight percent of each component, and the composite partial vapor pressures of all press-related cleaning solvents used. The data may consist of manufacturer's formulation data as deemed acceptable by the AQD District Supervisor. All records shall be kept on file and made available to the Department upon request.

As stated previously, this will be evaluated during a separate PCE.

- 3. The permittee shall keep the following information for FGOFFSET2 on a calendar month basis:
  - a) Identification of the category (ink, coating, blanket wash, roller wash, press wash, etc.) of each VOC containing material used and reclaimed.
  - b) The VOC content of each material as received and as-applied (in percent by weight or pounds per gallon).
  - c) The usage and reclaim (in pounds or gallons) of each VOC containing material.
  - d) VOC emission calculations determining the annual emission rate in tons 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 made available to the Department upon request.

As stated previously, this will be evaluated during a separate PCE.

4. The permittee shall monitor and record, in a satisfactory manner, the temperature in the combustion zone of the RTO on a continuous basis in a manner and with instrumentation acceptable to the AQD.

Based on observations made during the inspection, this is being completed as required by the permit condition.

## VII. REPORTING

N/A

## 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

N/A

## **FGFACILITY**

This flexible group covers all of the equipment at the facility including equipment covered by other permits, grandfathered equipment and exempt equipment.

# I. EMISSION LIMITS

1. Each individual HAP is limited to less than 9.0 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

As stated previously, this will be evaluated during a separate PCE.

2. Aggregate HAPs are limited to less than 22.5 tpy based on a 12-month rolling time period as determined at the end of each calendar month.

As stated previously, this will be evaluated during a separate PCE.

# II. MATERIAL LIMITS

N/A

## III. PROCESS/OPERATIONAL RESTRICTIONS

N/A

## IV. DESIGN/EQUIPMENT PARAMETERS

N/A

## V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years.

1. The permittee shall determine the HAP content of any ink, fountain solution, cleanup solution, flash oil, etc.(material) as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311.

This is being completed as required.

# VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years.

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.

As stated previously, this will be evaluated during a separate PCE.

2. The permittee shall keep the following information for FGFACILITY on a calendar month basis:

- a) Gallons or pounds of each HAP containing material used.
- b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
- c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
- d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
- e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month

The permittee shall keep the records in a format acceptable to the AQD District Supervisor and make them available to the Department upon request.

As stated previously, this will be evaluated during a separate PCE.

# VII. REPORTING

N/A

# VIII. STACK/VENT RESTRICTIONS

N/A

## IX. OTHER REQUIREMENTS

N/A

The facility has a baler and shredder for the waste paper. The baler has a cyclone/baghouse system for control that vents into the inplant environment. The baler is exempt from permitting under Rule 290 (a) (iii) (A).

Based on observations made at the time of the inspection and a subsequent records review, Rogers Printing appears to be in compliance with all portion of Opt-out permit No. 114-01B that were evaluated as well as other applicable Air Quality Rules and Regulations.

DATE 11/5/13

SUPERVISOR