

A9196
Manilla

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

A919639410

FACILITY: FABRICON PRODUCTS INC		SRN / ID: A9196
LOCATION: 1721 W PLEASANT AVE, RIVER ROUGE		DISTRICT: Detroit
CITY: RIVER ROUGE		COUNTY: WAYNE
CONTACT: Bruce Dinda , President		ACTIVITY DATE: 04/17/2017
STAFF: Jorge Acevedo	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

COMPANY NAME : Fabricon Products
FACILITY ADDRESS : 1721 W. Pleasant, River Rouge, MI
STATE REGISTRAT. NUMBER : A9196
SIC CODE :
EPA SOURCE CLASS : B
EPA POLLUTANT CLASS :
LEVEL OF INSPECTION : Scheduled inspection
DATE OF INSPECTION : 4/17/17
TIME OF INSPECTION : 1:00 PM
DATE OF REPORT : 4/17/17
REASON FOR INSPECTION : Scheduled
INSPECTED BY : Jorge Acevedo
PERSONNEL PRESENT : Bruce Dinda
FACILITY PHONE NUMBER :
FACILITY FAX NUMBER :

FACILITY BACKGROUND

Fabricon specializes in printing plastic wrappers for candies and waxed paper wrappers for ice cream products. Fabricon is located in River Rouge near the Southwest Detroit border. The closest residence is less than 200 yards.

INSPECTION NARRATIVE:

On April 17, 2017, I conducted a scheduled inspection of Fabricon Products. The purpose of the inspection was to determine the facility's current compliance status with the federal Clean Air Act of 1990, as amended; Part 55 of Michigan Public Act 451 of 1994, as amended; the administrative rules and the conditions of PTI No. 30-10. I arrived at the facility at 1:00 PM. I met with Bruce Dinda, President, Fabricon Products. I explained to Mr. Dinda the purpose of the inspection. The last inspection was conducted in 2013. Mr. Dinda provided a brief history of the company and explained the plant operations and pointed out equipment covered by their permit to install, PTI 30-10.

Currently, there are three flexographic presses, each is capable of printing at a rate of 300 feet/min. Mr. Dinda explained that they only run two of the three at any one time. These presses are ducted to a regenerative thermal oxidizer (RTO) to comply with Rule 624(3)(c). Whenever the presses run, the oxidizer is run as well. The control efficiency is calculated using the parameters for capture and control efficiency: 65 % capture and 95 % destruction efficiency. Each press is equipped with an exhaust bypass. According to Mr. Dinda, it is necessary to run the press to the bypass until it is up to full production, which only takes a few moments.

The following process equipment are exempt from the provisions of R201:

- 1) Hot melt coaters, which use parafin wax- PTI exempt by R287 (i)
- 2) Boiler(< 50 mmbtu/hr) and a chiller combination for above coaters- Boiler exempt under R282 2(b)(i)- chiller system exempt under R280 (2)(a)
- 3) An 8.4 MMBtu/hr (<50 MMBtu/hr) natural gas fired boiler - PTI exempt by R282 (2)(b)(i))
- 4) Small process boilers (<50 MMBTU/hr) - natural gas- PTI exempt by 282 (2)(b)(i)
- 5) A solvent distillation system with a capacity of 35 gallons - PTI exempt by R285(u))

There are no emergency generators onsite.

The coating (ink) material is weighed prior to use. At job conclusion, the recovered ink is weighed, then either stored for future use or placed in the waste drum for solvent recovery. The VOC emissions are calculated as follows:

$(\text{Weight of ink used}) \times (\text{Weight\% of each material in the mixture}) \times (\text{VOC content of each material in the mixture}) \times (\text{DE})$

The press room was the first stop. Two lines were operating at the time of the inspection. Mr. Dinda explained that they had just switched ink suppliers at the beginning of the year. The RTO control panel was located in this area. The oxidizer temperature read 1514 degrees Fahrenheit.

We walked through the remainder of the facility, observing the aforementioned boilers, hot-melt coater, slitter, and solvent distillation system.

The chill room used anhydrous ammonia stored in 2 horizontal tanks. The low pressure boiler was out of service. After doing a walk through, I requested records that are required by the Permit to Install. I left the facility at 3 PM.

COMPLAINT/COMPLIANCE HISTORY:

There has not been any citizen complaints registered against Fabricon. There have been violations issued against Fabricon, but it has been more than ten years since the last one issued.

ACTIVE CONSENT ORDERS:

None

OUTSTANDING VIOLATION NOTICES

None

OPERATING SCHEDULE/PRODUCTION RATE:

This facility operates 8 hours a day, 4 days a week.

PROCESS DESCRIPTION

Fabricon has a computer-controlled mixing system to ensure consistent colors for their customers. The mixer has a series of drums that contain the basic colors connected by tubing to a central dispenser. The operator enters the code of the color that they need as well as the desired amount, and the machine dispenses the proper color. The operator then needs to cut the ink with solvent (isopropyl alcohol) before proceeding with the print job. The material is weighed prior to the job. When the job is finished, the recovered ink is weighed, then either stored for future use or placed in the waste drum for solvent recovery. The emissions are calculated by using the weight of ink used multiplied by the weight percent of each material in the mixture multiplied by the VOC content of each material, to which the press-specific collection efficiency is applied. Finally, the control efficiency is applied. This is repeated for each color (up to six per press per run).

After one color is applied, the web is sent to the drying oven before returning to the press to receive additional colors.

Each press is equipped with an exhaust bypass. According to Mr. Dinda, it is necessary to run the press to the bypass until it is up to full production, which only takes a few moments.

For the wax line, the printed paper has melted parafin applied to it, which is immediately chilled to set it. There are no significant emissions from this line.

APPLICABLE RULES/PERMIT CONDITIONS:

Rule 624 applies to VOC emissions from existing graphic arts lines. Unless the facility uses only water reducible inks, Rule 624 requires 60% overall VOC reduction through the use of add-on controls (RTO). The facility is not subject to 40 CFR Part 63 Subpart KK, National Emission Standards for the Printing and Publishing Industry, since Fabricon is not a major source of hazardous air pollutants (HAP). Fabricon's Permit to Install 30-10 contains opt-out provisions for HAP. The boilers are not subject to 40 CFR Part 60 Subpart Dc, since the heat input to each is below 10 MMBtu/hr.

Special Conditions for PTI 30-10 are evaluated below:

The following conditions apply to: FGPRESSES

DESCRIPTION: Three flexographic printing presses, associated ovens, regenerative thermal oxidizer (RTO), and cleanup solvents.

POLLUTION CONTROL EQUIPMENT: Regenerative Thermal Oxidizer (RTO)

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Compliance Determination
1. VOC	52.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGPRESSES	Compliance- Records are kept monthly and were reviewed on site. VOC emissions are below 20 TPY as of February 2017.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall capture all waste materials (e.g. inks, cleanup solvents, etc.) and store them in closed containers. The permittee shall dispose of all waste materials (e.g. inks, cleanup solvents, etc.) in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1205, R 336.1225, R 336.1702(a), R 336.1901)

Compliance- Waste materials were observed in closed containers during inspection.

2. The permittee shall handle all VOC and/or HAP containing materials, including coatings, reducers, solvents and thinners, 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. (R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1901)

Compliance- Overall, during the inspection proper housekeeping was observed.

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate any portion of FGPRESSES unless the thermal oxidizer is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer requires a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum temperature of 1500°F and a minimum retention time of 0.5 seconds. (R 336.1205, R 336.1225, R 336.1702(d), R 336.1901, R 336.1910)

Compliance- Oxidizer was running during press operation. Temperature was above 1500°F.

2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the thermal oxidizer to monitor and record the temperature on a continuous basis, during operation of FGPRESSES. (R 336.1205, R 336.1225, R 336.1702(d), R 336.1901, R 336.1910)

Compliance- Temperature monitoring was being conducted during the inspection. I observed several months of strip charts during the inspection.

V. TESTING/SAMPLING

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

Within 60 days of achieving the maximum production rate, but not later than 180 days after commencement of trial operation, the permittee shall verify the destruction efficiency of the regenerative thermal oxidizer associated with FGPRESSES, by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates 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 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

Compliance- Test was conducted on June 10, 2010. Test results indicated facility was in compliance with permit conditions.

2. The permittee shall determine the VOC content of any 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, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 or 24A and the formulation values should differ, the permittee shall use the Method 24 or 24A results to determine compliance. (R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

Compliance- Facility maintains list of coatings and MSDS on site.

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205, R 336.1225, R 336.1702(d))

Compliance- Calculations are done on a monthly basis and were submitted to AQD.

The permittee shall monitor and record the temperature in the combustion chamber of the thermal oxidizer on a continuous basis, during operation of FGPRESSES. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. (R 336.1205, R 336.1225, R 336.1702(d), R 336.1901, R 336.1910)

Compliance- During inspection, AQD observed that temperature was being monitored continuously.

3 The permittee shall keep a separate written record of the following for FGPRESSES on a monthly basis:

a) The type of each material used.

b) The VOC content of each material (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 or gallons) of material reclaimed, as applicable.

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.

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

(R 336.1205, R 336.1225, R 336.1702(d))

Compliance- Records are kept on a monthly basis.

4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (e.g. inks, cleanup solvents, etc.), 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. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702, R 336.1901)

Compliance- Facility maintains list for all materials.

5. The permittee shall keep, in a satisfactory manner, operating temperature records for the thermal oxidizer as required by SC VI.2. If the measured operating temperature of the thermal oxidizer falls below 1500°F during operation of FGPRESES, the permittee may demonstrate compliance 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 1500°F. The permittee shall keep all records and calculations on file and make them available to the Department upon request. (R 336.1205, R 336.1225, R 336.1702(d), R 336.1901, R 336.1910)

Compliance- Facility maintains strip charts and made copies of several months for AQD.

VII. REPORTING

1 Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGPRESSES. (R 336.1201(7)(a))
Compliance- Facility completed the requirement with the required timeframe.

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Compliance Determination
1.SV-RTO	32	30	Compliance assumed. Stack appeared to be correct height and diameter but no measurements were taken.

IX. OTHER REQUIREMENTS

NA

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT: RTO on FGPRESSES

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Compliance Determination
1. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	Compliance- Single HAP emissions are less than 9.0 tpy
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	Compliance- Aggregate HAP emissions are less than 25.0 tpy.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

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

1. The permittee shall determine the HAP content of any material (e.g. inks, cleanup solvents, etc.) as received and as applied, 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. (R 336.1205(3))

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(3))
Compliance- Calculations are done monthly and were submitted upon request.
2. The permittee shall keep the following information on a monthly basis for FGFACILITY:
 - 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. For the first month following permit issuance, the calculations shall include the summation of emissions from the 11-month period immediately preceding the issuance date. For each month thereafter, calculations shall include the summation of emissions for the appropriate number of months prior to permit issuance plus the months following permit issuance for a total of 12 consecutive months. The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(3))

Compliance- HAP emission calculations are done on a monthly and 12 month rolling basis.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:
N/A

MAERS REPORT REVIEW:

2016 MAERS

Pollutant	Emissions (TPY)
NOx	0.04
VOC	16.65

FINAL COMPLIANCE DETERMINATION:

The facility is in compliance with applicable regulations at the time of the inspection.

NAME  _____

DATE 4-17-17

SUPERVISOR W.M.