

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

B564227882

FACILITY: RED SPOT WESTLAND INC		SRN / ID: B5642
LOCATION: 550 S EDWIN ST, WESTLAND		DISTRICT: Detroit
CITY: WESTLAND		COUNTY: WAYNE
CONTACT: Bob Zamensky , EHS Manager		ACTIVITY DATE: 11/26/2014
STAFF: Usama Amer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Inspection of an Opt-out Source		
RESOLVED COMPLAINTS:		

On November 26, 2014, I conducted a Scheduled Inspection at Red Spot Westland, Inc. (Red Spot), located at 550 S. Edwin St., Westland, Wayne County. The purpose of the inspection was to determine the facility's 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 AQD PTIs No. 449-99B and 62-14. Mr. Bob Zamensky, EHS Manager represented Red Spot during the inspection.

#### BACKGROUND & PROCESS DESCRIPTION

Red Spot is a paint and varnish manufacturing company, making both solvent and water-borne coatings primarily for the automotive industry. The facility has 15 employees and operates eight hours per day, Monday through Friday.

Red Spot's coating manufacturing is achieved in the following 2 processes:

- 1) Closed totes and associated equipment including mills, dispersers, container cleaning, and quality control activities. This process also includes Closed Loop Tanks #1, #2, and #4; and
- 2) Open-top mixing tanks and associated equipment including mills, dispersers, container cleaning, and quality control activities.

Red Spot's main emissions include VOC, HAPs and PM.

#### THE INSPECTION

##### AQD PTI No. 449-99B

##### FG COATING

Coating manufacturing in open and closed totes, and associated equipment including mills, dispersers, container cleaning, quality control activities, and Closed Loop Tanks #1, #2, and #4. This FG also includes EUCTG01, EUCTG02 and EURESIN.

##### SPECIAL CONDITIONS (S. C.)

#I.1 stipulates the limit of annual VOC emission not to exceed 38 tpy for EUCTG01 and EURESIN.

- The highest annual VOC emission rates were: (Attachment 1)

- 1) 4463 lb/yr = 2.23 tpy for 11/13
- 2) 4220 lb/yr = 2.11 tpy for 2/14

#I.2 & #I.3 stipulate the limits of PM & PM-10 at 0.01 lb/1000 lb of exhaust gases & 0.9 lb/hr, respectively.

- The above 2 conditions set General Condition #13 as the basis of showing compliance with the stipulated PM limits. Therefore, it's the inspector discretion to decide whether a stack test is necessary for compliance demonstration. As I observed the operations of FGCOATING, I did not see a need to ask Red Spot to conduct stack testing; especially, when there's no stack to test.

Red Spot operates the baghouse in compliance with this condition. Red Spot uses the following theoretical calculation to provide supporting data that shows the permit condition listed above is met. This calculation is based upon conservative AP42 emission data and/or other acceptable methods/assumptions. The existing stacks are not connected to FGCOATING. They are used as Vents for air exchange.

Baghouse Designed Operating Rate = 16,000 cfm  
 Weight of exhaust air per cubic foot = 0.09 lbs per cf  
 Operating Hours = 8 hours per day x 250 days per year  
 Annual Throughput = 0.5% of estimated 50,000 lbs of pigment processed  
 Baghouse Efficiency = 80% (ultra conservative)

Theoretical Calculation for Baghouse PM Emissions:

$$\frac{(50,000 \text{ lbs - Pigment}) \times (0.005)}{(16,000 \text{ cf/min}) \times (24,000 \text{ min/yr}) \times (0.09 \text{ lb/cf})} \times 0.02 = 0.001 \text{ lb/1,000 lb exhaust gases}$$

The baghouse is maintained on a semi-annual basis by an outside contractor.

#I.4 stipulates the limit of monthly emission rate of Styrene not to exceed 68 lb/mo for EURESIN.

- The highest monthly Styrene emission rate of 1.2 lb/mo was reported for 11/14.

#II.1 stipulates the annual coating production rate for EUCTG01 and EURESIN not exceed what's equivalent to 76,000 lbs VOC/yr.

- The highest annual VOC emission rates were: (Attachments 1)

- 1) 4463 lb/yr = 2.23 tpy for 11/13
- 2) 4220 lb/yr = 2.11 tpy for 2/14

#II.2 stipulates the total annual coating production rate for FGCOATING not exceed what's equivalent to VOC/yr 110,000 lbs/yr.

- The highest annual VOC emission rates were: (Attachments 1)

- 1) 9797 lb/yr = 4.9 tpy for 10/13
- 2) 8998 lb/yr = 4.5 tpy for 1/14

#III.1 stipulates that FGCOATING shall not operate unless all provisions of Rule 630 are met.

#### **- R 336.1630**

*Emission of VOC from existing paint manufacturing processes:*

*(1) After April 19, 1990, a person shall not cause or allow the emission of a VOC from existing equipment utilized in paint manufacturing located in (Wayne County), unless all of the provisions of subrules (2) to (4) of this rule are met or unless an equivalent control method, as approved by the department, is implemented:*

*(2) All stationary and portable mixing tanks and high speed dispersion mills shall be equipped with covers that completely cover the tank or mill opening, except for an opening which is no larger than necessary to allow for safe clearance for the mixer shaft. The tank opening shall be covered at all times, except when operator access is necessary.*

(3) The cleaning of paint manufacturing equipment and paint shipping containers shall be done by methods and materials that minimize the emission of VOCs. These methods and materials shall include 1 of the following:

(a) Hot alkali or detergent cleaning.

(b) High-pressure water cleaning.

(c) Cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method and materials being used.

(4) Wash solvent shall be stored only in closed containers.

(5) The provisions of this rule do not apply to tanks or equipment which, pursuant to the provisions of this subrule that were in effect on April 19, 1989, was exempt from the provisions of this rule that were in effect on April 19, 1989, but which are now subject to the provisions of this rule, until 1 year after the effective date of this rule.

#1.6 – stipulates the following Monitoring & Recordkeeping data:

- a) Monthly and 12-month rolling time period VOC emission rates,
- b) Volume of each product produced on a monthly basis, and
- c) The methods used for the above calculations.

Red Spot, under subrule (3), follows part (c) cleaning by use of an organic solvent if the equipment being cleaned is completely covered or enclosed, except for an opening that is no larger than necessary to allow for safe clearance considering the method and materials being used. Cleaning of the containers in tank wash is accomplished through the use of washing equipment that maintains the covering of these containers during their cleaning. The resulting solvent is collected and placed into a closed container after use, which satisfies subrule (4).

#### **FGFACILITY**

All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.

#### **SPECIAL CONDITIONS (S. C.)**

#1.1 & #1.2 stipulate the limits of VOC not to exceed 25 lb/hr (based on daily average), or 55 tpy, based on a 12-month rolling time period as determined at the end of each calendar month, respectively.

- The highest annual VOC emission rates were 4.92 lb/hr for 5/14, and 4.9 tpy for 10/13 and 4.5 tpy for 1/14. (Attachment 1)

#1.3 & #1.4 stipulate the limits of HAP not to exceed 9.0 tpy of any individual HAP, and 22 tpy of aggregate HAPs, based on a 12-month rolling time period as determined at the end of each calendar month, respectively.

- The highest annual aggregate HAPs emission rates were 0.95 tpy for thus far in 2014. (Attachment 1)

#VI.2 stipulates that Red Spot shall monitor the daily average VOC pound per hour emission rate calculated from monthly production records, prorated to a daily rate. Should the prorated daily average emission rate exceed 80 percent of the daily average pound per hour limit, Red Spot shall commence daily production recordkeeping for a minimum of three months until the prorated hourly rate falls below 80 percent of the daily average pound per hour limit as calculated at the end of the month.

#VI.3 - Stipulates that Red Spot shall keep the following records for FGFACILITY:

- a) The hours of operation on a monthly basis,
- b) Hours of operation on a daily basis (as needed to comply with provisions of SC 2.4),
- c) VOC emission rate in pounds per hour (based on a daily average as stated in SC 2.4),
- d) Monthly and 12-month rolling time period VOC and HAP emission rates,
- e) Formulations of each product, including VOC and HAP content,
- f) Volume of each product produced on a monthly basis,
- g) Volume of each product produced on a daily basis (as needed to comply with provisions of SC 2.4),
- h) The methods used for the above calculations, and
- i) A list of all equipment installations and modifications made to EUCTG01 and EUCTG02 kept for the life of the equipment.

- Attachment 1 shows compliance with the above 2 conditions.

#### CONCLUSION

Red Spot appears to be in compliance with the conditions of PTI No. 449-99B, and the applicable Air Pollution Control Rules.

Compliance with the conditions of PTI No. 62-14 was not evaluated, because the covered process equipment is being installed and expected to commence operations in January, 2015.

NAME Sam Amor      DATE 1/27/15      SUPERVISOR JK