

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

P037438326

FACILITY: PLASAN CARBON COMPOSITES		SRN / ID: P0374
LOCATION: 3195 WILSON DRIVE, WALKER		DISTRICT: Grand Rapids
CITY: WALKER		COUNTY: KENT
CONTACT: Chuck Czarnecki , Paint Engineer/TS Lead		ACTIVITY DATE: 01/11/2017
STAFF: Kaitlyn DeVries	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: The purpose of this inspection was to determine compliance with PTI Nos. 35-16, 130-12C, Consent order 15-2016, and all other applicable air quality rules and regulations.		
RESOLVED COMPLAINTS:		

On Wednesday January 11, 2017 AQD Staff Kaitlyn DeVries (KD) conducted an unannounced, scheduled inspection of Plasan Carbon Composites and Plasan North America (combined – Plasan) located at 3195 and 3236 Wilson Drive and 3111 N. Wilson Court Walker, Michigan. The purpose of this inspection was to determine compliance with PTI No. 130-12C, PTI No. 35-16, consent order 15-2016, and all other applicable air quality rules and regulations. In addition to the inspection conducted on this day, a stack test for the regenerative thermal oxidizer (RTO) was being conducted. Further discussion of the stack test and the RTO can be found in the compliance evaluation section of this report.

KD arrived at the facility at approximately 9:00 am. Prior to entry, KD observed the perimeter of the facility for any odors, fugitive emissions, or opacity. None were noted. KD met with Mr. Chuck Czarnecki, Paint Manager and Ms. Courtney Draveling, whom accompanied KD on much of the tour of Plasan Carbon Composites, and Ms. Amy Uppleger and Michael accompanied KD on the tour of Plasan North America.

Facility Description

Plasan Carbon Composites (PCC) is a manufacturer of high-end carbon composite automotive parts, primarily hood and roofs. The parts are manufactured by heat molding carbon composite into the desired shape and then finished via sanding, bonding, and coating. The thermoforming of the carbon composite sheets takes place in plant 1 (3195 Wilson Dr) along with the primary coating line (EUPAINTLINE-1). EUPAINTLINE-2 is housed in plant 2 (3236 Wilson Drive Suite A).

Plasan North America (PNA) designs and manufactures a broad range of composite products for military and industrial applications.

PCC and PNA are considered to be one stationary source (Plasan) and are subject to the Title V program, which is discussed below, in the regulatory analysis section of this report. Please note, that this report is separated into two (2) sections, PCC and PNA. Compliance, however, will be determined by evaluating both sections as one.

Regulatory Analysis

Plasan currently holds two (2) permits, PTI Nos. 130-12C and 35-16, Consent order 15-2016, and is subject to the Title V program. However, the Title V permit is still in progress at the time of this report. This inspection was conducted with all requirements of the impending ROP in the forefront. In addition to being subject to the Title V program, Plasan is also subject to 40 CFR Part 63 Subpart PPPP (4P) for surface coating of plastic parts and products due to EPA's "once in always in" policy and the exceedance of the major source threshold for Hazardous Air Pollutants (HAP's) in 2015.

Plasan is also subject to 40 CFR Part 63 Subpart ZZZZ for stationary reciprocating internal combustion engines and 40 CFR Part 60 Subpart JJJJ for Stationary spark ignition internal combustion engines. Details of these Federal regulations will be discussed below in the compliance evaluation section of this report.

Compliance Evaluation

Plasan Carbon Composites

A previously mentioned, KD met with Mr. Chuck Czarnecki and Ms. Courtney Draveling. Ms. Draveling has recently been hired on as the new Environmental Health and Safety Specialist for Plasan Carbon Composites

(PCC). PCC operates typically 6, sometimes 7 days per week, and operates 24 hours per day.

It should be noted, that this permit (PTI No. 130-12C) has the flexible group FGTRANSITION that is for the operation of FGPAINT during the transition period between the dates of issuance of the permit and the date the RTO is being used for production on EUPAINTLINE-1. At the date of this report, the RTO is being used for production, thus this section of the permit is not being fully evaluated. Records were, however, obtained to ensure proper compliance with the emission limitations during that time-period.

All waste materials throughout all of the facilities appeared to be covered, and disposed of in an appropriate manner, thus minimizing fugitive emissions.

PTI No. 130-12C

EUCARBONMOLD

This emission unit is for twelve (12) oil-heated molding presses with a 3.22 MMBtu/Hr natural gas-fired boiler to heat the oil, two (2) electrically-heated autoclaves, and one (1) natural gas-fired autoclave.

Volatile Organic Compounds (VOC) emissions are limited to 2.9 tons per year (tpy), 12-month rolling from this process. Per the attached records, as of December 2016 the 12-month rolling VOC emissions were 0.297 tpy. The VOC content of the mold release used in this process is limited to 6.4 lb./gal. Per the records, the highest VOC content mold release is 6.3 lb./gallon. PCC is properly tracking the gallons of each material used per month.

EUADHESIVE

This emission unit consists of robotic bonding processes that occur in the open plant area; HVLP applicators are being used. VOC and acetone emissions are limited to 10.0 tpy, 12-month rolling, and as of December 2016 emissions were 5.93 tpy. MDI Isomer is limited to 0.34 lb./day from this process. Per the attached records, April 1, 2016 had the highest daily usage of MDI at 0.300 lb.

The VOC content of the adhesives used for this process is limited to 0.24 lb./gal (minus water) as applied. Mr. Czarnecki explained that the adhesives are applied as they are received and are not mixed with any other ingredients. Per the attached records, the highest VOC content adhesive is 0.13 lb./gallon. The VOC content of the primers is limited to 4.7 lb./gal (minus water) as applied. Per the attached records, the highest VOC content primer is 4.65 lb./gal. Additionally, the facility has requested and AQD approved the use of manufacturer's formulation data in lieu of Method 24. Per the records, the VOC content was determined by the manufacturer via EPA Method 24, as required.

PCC is properly tracking the MDI, VOC, and Acetone content of each material, as well as the gallons of each material used.

FGPAINT

This flexible group covers the two (2) conveyORIZED paint lines for the spray coating of plastic automotive parts (EU-PAINTLINE-1 and EU-PAINTLINE-2). The two (2) paint lines are essentially the same with the exception of EU-PAINTLINE-1 being controlled by the RTO and EU-PAINTLINE-2 is uncontrolled.

Both paint lines use a five (5) stage wash system, are dried, and then coated. Both paint lines had filters properly installed, and were in use at the time of the inspection. Per Mr. Wayne DeGroot, Paint Supervisor, PCC installed ES Bells applicators in the fall, which provide a better transfer efficiency than the required HVLP applicators. EU-PAINTLINE-1 utilizes robotic spraying, while EU-PAINTLINE-2 is manual spray. Filters for both paint lines appeared to be properly installed and operating.

As previously mentioned, the PCC was conducting the required Stack Testing on the RTO associated with EU-PAINTLINE-1. Currently, PTI No. 130-12C requires the RTO to be operated at a minimum temperature of 1400° F, with 95% destruction efficiency (DE) and 92.5 % capture efficiency. Testing conducted in September 2016 showed compliance with the capture efficiency limit, but not the destruction efficiency, hence the re-testing being conducted. The RTO was operating at a range of 1550°F - 1650°F at the time of the inspection. KD spoke with Mr. Czarnecki about possibly having the temperature condition in the permit updated to more appropriately reflect the actual temperature of the RTO, when properly operating.

EU-PAINTLINE-2 must only use air dried coatings at temperatures less than 194°F, but may operate at temperatures higher than 194°F for high-bake coatings. At the time of the inspection, the circular disc temperature recording device indicated the temperature was operating at approximately 280°F, but the LCD display stated the set point was 170°F with a high point of 195°F. KD inquired about this discrepancy, and also asked for proof of what type of coating was being used. Mr. DeGroot had previously stated that this line was only using air-dried coatings, so KD asked Mr. DeGroot use a probe to verify the actual temperature of the oven. The probe indicated that the temperature was 188°F, which is compliant with the 194°F high temperature limit for air dried coatings. Upon further investigation, Mr. DeGroot informed KD that the wrong discs were being used in the disc recording device. KD spoke with Mr. DeGroot and Mr. Czarnecki about the temperature and the importance of temperature recording to be accurate, especially if this is the only official record of the temperature. Upon speaking with Mr. Randy Jesberg, of PCC, he indicated that they do track the temperature electronically. The attached electronic records show that the oven has not operated in excess of 194°F for any of 2016.

PCC has previously requested, and AQD granted permission of manufacturer's formulation data in lieu of Method 24 for VOC content verification. The VOC content of air-dried primers and clear-coats for EU-PAINTLINE-2 are limited to 4.7 lb./gal and 4.5 lb./gal (minus water) as applied, respectively. The VOC content of high-bake clear-coats and high-bake non-flexible primers for EU-PAINTLINE-2 are limited to 4.0 lb./gal and 3.5 lb./gal, (minus water) as applied, respectively. As previously mentioned, Mr. DeGroot stated that they only do air-dried coatings in EU-PAINTLINE-2. The primers and clear coats are mixed with an activator at a specified ratio. Utilizing this same ratio, the VOC content of the coatings are compliant with the specified limits.

PCC switched from the requirements of of FGTRANSITION when the RTO began being used for production, in May 2016. PCC had previously been properly tracking all of the emission requirements outlined in FGTRANSITION. FGPAINT requires VOC emissions from EU-PAINTLINE-1 be limited to 35.0 tpy, 12-month rolling. As of December 2016, VOC emissions were 1.955 tpy, 12-month rolling. VOC emissions from EU-PAINTLINE-2 are also limited to 35.0 tpy, 12-month rolling, and as of December 2016 VOC emissions were 1.122 tpy. Emissions of p-Chlorobenzotrifluoride are limited to 8.1 tpy, 12-month rolling from EU-PAINTLINE-2 and 106.8 lb./24-hr for FGPAINT. Records indicate that May 17, 2016 had the highest p-Chlorobenzotrifluoride emission at 8.96 lb./24 hr. Additionally, per Mr. Czarnecki, p-Chlorobenzotrifluoride is a constituent of one of the primers, and that primer is only used on EU-PAINTLINE-1. Thus no p-Chlorobenzotrifluoride has been emitted from EU-PAINTLINE-2. PCC is properly tracking the usage of all compounds, including all p-Chlorobenzotrifluoride containing compounds, VOC and p-Chlorobenzotrifluoride content of each compounds used and emissions data.

Stack parameters, while not explicitly measured, appeared to be correct.

FGMACT PPPP

This flexible group covers each new, reconstructed, and existing source engaged in coating of plastic parts and products. This flexible group includes EU-PAINTLINE-1, EU-PAINTLINE-2, and EUADHESIVE. The initial compliance notification was received on April 22, 2016, and PCC has subsequently been reporting the compliance status, as required. The most recent compliance notification was received on January 17, 2016 and indicated that the compliance methods selected were emission rate without add-on controls. For the compliance method of emission rate without add-on controls, Organic HAP's are limited to 0.16 lb. per lb. of coating solids, 12-month rolling. The attached records indicate compliance with the Organic HAP limit of 0.16 lb. per lb. of coating solids, as December 2016 indicates 0.006 lb./lb. coating solid.

FGFACILITY

This flexible group covers all process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

Individual HAP emissions are limited to 9.9 tpy and aggregate HAP emissions are limited to 24.9 tpy, both 12-month rolling. Per the attached records, as of December 2016, aggregate HAP emissions were 0.92 tpy, with Ethylbenzene being the highest individual HAP emitted at 0.141 tpy. Records also indicated that PCC is properly tracking the usage of each HAP containing material, including reclaim, and HAP content of each material.

Miscellaneous Exempt Emission Units

The plant has several sanding, routing, and drilling operations that are exempt from Rule 201 permitting under Rules 285 (l)(vi)(B) and/or Rule 285(l)(vi)(C), depending on the operation and location within the facility. The

facility currently has some cold cleaners, which are exempt from Rule 201 permitting under Rule 281(h). Rule 290 recordkeeping is utilized for several small priming, touch-up, and finishing operations. KD was able to view one (1) of the booths that is used for touch-ups. KD noted that while it was equipped with filters, the filters looked thick and grey. Ms. Draveling stated the filters are normally blue, for which KD recommended replacing the filters as soon as possible. All records for Rule 290 appear to be adequate.

PCC also has two (2) generators that are subject to the provisions of 40 CFR Part 63 Subpart ZZZZ for Reciprocating Internal Combustion Engines. The two (2) generators were properly equipped with hour meters. The most recent preventative maintenance inspection was conducted on January 5, 2016. Records of the inspection are attached to this report.

Plasan North America

PTI No. 35-16

KD met with Ms. Amy Uppleger, Safety Coordinator, and Michael, who escorted her on the tour of the plant. The majority of the facility is warehouse with the rest consisting of the pultrusion line, a small finishing area, a couple of welding stations, and a coating area. All waste containers appeared to be closed, properly stored, and disposed of, as appropriate.

EUPULTRUSION

This emission unit is a single pultrusion line in which reinforcing fiber materials are pulled through a resin bath and then a series of preform plates which shape the coated fibers into the desired profile. The coated fibers are then drawn through a heated die which initiates an exothermic reaction and polymerizes the thermosetting resins to produce composite rods and tubes. The finished product is then cut to the desired length with a wet saw. VOC emissions from this process are limited to 300 lb./yr, 12-month rolling, and as of December 2016, the 12-month rolling emissions were 176.7 lb./yr. Acetone emissions are also limited from this process. Emissions are limited to 790 lb./year, 12-month rolling. As of December 2016, acetone emission were 6.59 lb./year. Ms. Uppleger explained that they are no longer utilizing acetone for this operation. Plasan is adequately tracking the materials that are used, and all recordkeeping appears adequate.

Stack parameters, while not explicitly measured, appeared to be correct.

PNA also has one (1) generator that is subject to the provisions of the reciprocating internal combustion engine NSPS 40 CFR Part 60 Subpart JJJJ. The generator is equipped with an hour meter, and usage indicates it has ran 20.4 hours since it was installed at the end of February 2016. PNA most recently had the required Preventative Maintenance (PM) done on the unit in January 2017. Records of the PM are attached.

Additionally, there are a few welding stations. These stations are exempt from Rule 201 permitting under Rule 285 (i). The coating area is a hand rolling coating area, and PNA is properly tracking the usage. Per the attached records, the maximum monthly usage since May 2016, when the facility began operations, was 72.65 gallons.

PNA is using Rule 290 for some of their processes, and records for such are attached. All of the processes are uncontrolled, and emit only non-carcinogens, per the SDS's. Thus, the allowable emissions are 1,000 lbs per month. Per the attached records, ethanol has been emitted as high as 741.4 lbs per month.

Compliance Determination

Based on the observations made during the inspection and a subsequent review of the records, it appears as if Plasan is in compliance with PTI No. 130-12C, PTI No. 35-16, Consent Order 15-2016 and all other applicable air quality rules and regulations.

NAME

Kathryn Devine

DATE

1/26/2017

SUPERVISOR

[Signature]