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

B652834212

FACILITY: ADAC Automotive Muskegon Plants		**SRN / ID:** B6528
LOCATION: 2050 Port City Blvd and, MUSKEGON		**DISTRICT:** Grand Rapids
CITY: MUSKEGON		**COUNTY:** MUSKEGON
CONTACT: Jacob Rupert , Environmental Manager		**ACTIVITY DATE:** 04/12/2016
STAFF: Kaitlyn DeVries	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: The purpose of this inspection was to determine compliance with PTI No. 2-12 and all other applicable Air Quality Rules and Regulations.		
RESOLVED COMPLAINTS:		

On Tuesday April 12, 2016 AQD Staff Kaitlyn DeVries conducted an announced, scheduled inspection of ADAC Automotive, located at 2050 Port City Blvd and 1801 Keating Avenue Muskegon, Michigan. The purpose of this inspection was to determine compliance with Permit to Install (PTI) No. 2-12 and all other applicable Air Quality Rules and Regulations. Additionally, it was at this time that ADAC Automotive conducted their required Non-Fugitive Emission Testing.

KD arrived at the facility at 1:00 pm and met with Mr. Jacob Rupert, Environmental Manager, Ms. Jessica Perez, Environmental Health & Safety Coordinator, and Mr. Matt Rose, Paint Engineer who accompanied KD on the tour of the facility. Mr. Rupert and Ms. Perez also conducted the scheduled Non-Fugitive Emission Testing, which was the reason the inspection was announced. KD did not note any opacity or excess odors during the inspection or prior to entry to the facility. KD left the facility at approximately 4:00 pm, after the NFE testing concluded. The results of the NFE testing can be found in activity report CA_B652834152.

Facility Description

ADAC Automotive (ADAC) is a plastic automotive parts manufacturer. The manufacturing process includes plastic injection molding, and several coating lines. The facility is separated into two (2) plants, the Port City Plant and the Keating Avenue Plant. Both of these facilities comprise one (1) stationary source.

Regulatory Analysis

ADAC is a Synthetic Minor Opt-Out source for Volatile Organic Compounds (VOC's) and Hazardous Air Pollutants (HAP's) and maintains one (1) permit, PTI No. 2-12. ADAC is not subject to any federal regulations at this time. ADAC typically operates one (1) eight to ten hour shift five to six days per week. Currently they employ approximately 400 employees at the Keating facility, and 300 employees at the Port City facility.

Compliance Evaluation

Exempt Emission Units

ADAC currently operates 23 plastic injection molding units, and has plans to add a few more in the future. This process is exempt from Rule 201 permitting under Rule 286 (b).

ADAC also has three (3) stand-alone paint booths that operate using rule 287 (c). Of the three (3) booths, one is small and is utilized for testing of new paints, one is a larger completely enclosed booth for test parts that has an associated curing oven, and the last one is a larger open booth with a robot for painting. KD reviewed all the records for these booths, and they are all well below the allowable 200 gallons per month. The filters also appeared to be properly installed and operational at the time of the inspection. Mr. Rupert also showed KD where the spent filters were sent, and they appeared to be properly disposed of to minimize fugitive emissions.

ADAC has two (2) natural gas only boilers that are located in the Keating facility. One boiler is 3 MMBTU and the other is 2.5 MMBTU. Both of these boilers are exempt from Rule 201 permitting under Rule 282 (b)(i).

EU-FLATRACKLINE

EU-FLATRACKLINE is a robotic interior and exterior automotive plastic parts coating line. The line consists of a prime-coat booth with associated cure oven, two (2) base0coat booths, a MICA – Coat booth, two (2) clear-coat booths, and a top-coat cure oven. The VOC emissions from this line are controlled by a non-fugitive enclosure

and a Regenerative Thermal Oxidizer – K-RTO. Particulate Matter (PM) emissions are controlled by a water wash system. The water wash system appeared to be properly operating at the time of the inspection. Sludge from the water wash is collected on site in a treatment room. The sludge is de-watered, and disposed of via landfill. At the time of the inspection, there were no objectionable odors emanating from this area.

The parts go through a five (5) stage wash prior to entering the painting line. Since the entire system is enclosed and self-contained, they are re-claiming as much of the solvents and paints as they can. Additionally, as stated above, the required Non-Fugitive Emission testing was conducted on the date of the inspection. KD was able to observe the testing, and testing indicated the enclosure was operating at a pressure lower than the adjacent areas.

Per Mr. Rupert, the Robotic spray booths are equipped with electrostatic spray applicators, which are comparable to High Volume Low Pressure (HVLP) applicators. The paint line is controlled by the K-RTO. At the time of the inspection, the RTO was operating at a temperature of 1513°F, which is above the required minimum temperature of 1450°F. Per Mr. Rupert, the temperature is recorded internally on the unit and is periodically downloaded from the unit for complete review. The RTO is equipped with interlocking controls that automatically shuts down the line if the temperature drops below the minimum required. The temperature is recorded every 60 seconds, and records indicate the temperature is well over the minimum 1450°F during operation. Additionally, the graph of the yearlong temperature records do show some dips of the RTO below the minimum. However, KD was able to verify that these dips in the temperature are due to Preventative Maintenance (PM) being done on the unit or are due to scheduled shut down's for other maintenance related work, which is acceptable.

VOC emissions are limited to 29.8 tons per year (tpy) 12-month rolling and 7.5 pounds per hour (pph) based on test protocol. The required stack testing for the destruction efficiency and pound per hour emission rate verification was conducted in 2013, and the results were acceptable. Per the attached records, the 12 month rolling average for VOC emissions is 2.11 tons. Additionally, ADAC is adequately tracking the material usage, VOC content, and subsequent emissions from each type of paint used on the line.

The mixing room, associated with this line, has two (2) types of paints that are utilized there, piggable, and non-piggable paints. All paint containers appeared to be properly closed and were minimizing fugitive emissions. ADAC has requested, and AQD approved the use of manufacturers formulation data for VOC content of the coatings used in the facility. KD asked Mr. Rupert about the current Malfunction Abatement Plan (MAP), as AQD's copy was from 2012, and Mr. Rupert stated this has just recently been updated and only made minor modifications. KD requested a copy of the new MAP, for which Mr. Rupert supplied. The MAP adequately details all of the specified requirements outlined in PTI No. 2-12 EUFLATRACK Special Condition III. 5. a-d.

EU-AUTOLINE

EU-AUTOLINE is housed in the Keating Avenue facility. Per Mr. Rupert, this line was removed from the facility in late February, early March 2015. KD observed the area, and it is now a warehouse type area. All equipment associated with this area has been decommissioned and/or completely removed from the building. The two (2) catalytic oxidizers that were associated with the line are just sitting in the rear of the facility, not operating. Additionally, they appear to have been disconnected from the rest of the facility. ADAC is still properly keeping track of all required records, and they indicate all zeros. However, since this emission unit is no longer operating, it will not be evaluated any further.

Per Mr. Rupert, ADAC is looking into modifying the permit to remove this emission unit from the permit.

EU-COELINE

The EU-COELINE is a plastic parts coating line that consists of an uncontrolled parts loading and unloading tunnel, an uncontrolled 5 – stage washer with associated dry-off oven and dry-off tunnel , two (2) prime-coating booths with associated flash-off, a prime cure oven, three (3) basecoat booths with flash-off, three (3) clear-coat booths with flash0off, associated tunnels, and final oven. All of these processes are controlled by a regenerative thermal oxidizer (PC-RTO). This coating line is housed in the Port City Blvd facility.

This building also has two (2) mixing rooms. Only one (1) of the rooms has piggable paints, the other does not. All of the mixing drums were closed at the time of the inspection.

As previously mentioned, Mr. Rupert indicated the MAP was recently updated re-submitted for AQD's review, and all information contained therein was acceptable and met the requirements as outlined in EU-COELINE

Special Conditions III. 4. a-d.

This paint line utilizes High Volume Low Pressure (HVLP) applicators, and all filters in this paint line appeared to be properly installed. The spent filters are placed into bags prior to being disposed of via landfills. The placement of the filters into the bags allows for minimization of fugitive emissions. Per Mr. Rupert the filters are replaced every 3.5 turns or roughly every 2.5 hours. Additionally, ADAC has requested, and AQD approved the use of manufacturer's formulation data for VOC content verification.

The RTO for this line was operating at a temperature of 1554°F at the time of the inspection; this is above the required minimum temperature of 1450°F. The attached records also indicate the RTO operates at a temperature above the required minimum. As previously mentioned, the temperatures that are below the minimum can be accounted for due to scheduled Preventative Maintenance (PM) being done on the unit or are due to scheduled shut down's for other maintenance related work, which is acceptable. The required stack testing for destruction efficiency verification was conducted in 2007, with acceptable results. The emissions from EU-COELINE are limited to 40.1 tpy, 12-month rolling and 400.8 lbs/day. Per the attached records the 12-month rolling average as of March 2016 is 3.53 tons. The records also indicate that less than 40 pounds per day are emitted from this line, and approximately 2 pounds per day for cleanup solvent is emitted. So, combined, the VOC emissions per day are below the 400.8 lbs/day limit. In addition to the emissions data, ADAC is properly tracking material usage, and VOC content of the coatings, thinners, catalysts, and solvents.

While stack dimensions were not explicitly verified, there did not appear to be any changes.

FG-FACILITY

The flexible group portion of the permit covers the HAP and VOC Title V Opt-Out emission limits for the stationary source, which is both the Keating Ave and the Port City Blvd facilities, exempt emission units, and grandfathered equipment.

HAP's are individually limited to 9.0 tpy, and aggregately limited to 22.5 tpy; both of which are 12-month rolling. As of March 2016, the aggregate HAP emissions are 640 pounds; while individually, the mixture of Ortho, Meta, and Para Xylene isomers was 324.60 pounds, 12-month rolling. Additionally, VOC's are limited to 89.0 tpy, 12-month rolling. Per the attached records the VOC emissions as of March 2016 are 5.65 tons. ADAC is properly tracking the material usage, HAP and VOC content, and emissions data.

As previously mentioned, ADAC requested and AQD approved the use of manufacturer's formulation data for VOC and HAP content verification for all coatings used at the facility. Representative samples of some of the SDS's are attached to this report.

MAERS emission data was reviewed in conjunction with this report and all emissions data appeared to be consistent.

Compliance Determination

Based on the observations made at the time of the inspection and a subsequent review of the records, ADAC Automotive appears to be in compliance with PTI No. 2-12 and all other applicable Air Quality Rules and Regulations.

NAME Kaitlyn DeVine DATE 4/26/2016 SUPERVISOR PAB