

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

P044859761

FACILITY: POSTLE ALUMINUM		SRN / ID: P0448
LOCATION: 201 N EDWARDS STREET, CASSOPOLIS		DISTRICT: Kalamazoo
CITY: CASSOPOLIS		COUNTY: CASS
CONTACT: Bryan Fehnel , General Manager		ACTIVITY DATE: 08/17/2021
STAFF: Rachel Benaway	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site inspection to verify compliance with state and federal air use regulations.		
RESOLVED COMPLAINTS:		

The purpose of this unannounced inspection on 8/17/2021 by AQD staff, Rachel Benaway, was to verify Postle Aluminum (P0448) is in compliance with air use Permit to Install (PTI) #93-13 and all state and federal air use regulations. Postle Aluminum is located at 201 North Edwards Street in Cassopolis, MI. The facility is an aluminum parts extrusion and coating operation and is a synthetic minor source of HAPS and VOCs. Bryan Fehnel, the General Manager, is the facility contact and was present at the time of inspection. PPE includes a hard hat, safety shoes, and safety glasses. There were no visible emissions or odors observed outside of the facility, within the limits of the parking lot. The facility employs approximately 160 people and operates 3 shifts per day during the week with partial shifts on the weekends. The facility has a parts washer but no boilers or emergency generators. No modifications, removals, or installations of equipment have occurred since the last inspection on 4/6/2017.

Approximately 85% of the aluminum parts that are extruded and pressed at the facility receive coating application. Plant 1 has 3 aluminum parts presses, Plant 2 has 1 press and 1 coating line, and Plant 3 has 1 press.

#	Equipment at Facility
	Surface Coating Line- 4-stage parts washer, drying oven, mixing area, 2 circular paint booths
	Cold cleaner

The following is a list of special conditions listed in the PTI for each emission unit and flexible group of which staff was able to make a compliance determination.

EUCOATINGLINE

-Surface coating line for extruded aluminum parts and components:

The conveyORIZED line includes a four-stage parts washer, a drying oven, a mixing area, and two (2) circular paint booths which utilize electrostatic high speed turbo disk rotary atomizing applicators and a natural gas curing oven. Pollution Controls for the coating line include dry filters and a Regenerative Thermal Oxidizer (RTO).

The aluminum parts intended for coating are hung by gravity hooks from the conveyor line. The parts move along the line (EUCOATINGLINE) through the four-stage parts washer, drying oven, two circular paint booths, and then through the natural gas curing oven. The spray booths are equipped with electrostatic high speed turbo disk rotary atomizing applicators and lined with two types of filters. The blanket, or curtain, filters are changed every other day and the pocket filters are changed every two weeks. Spent filters and waste are sealed in bags and then stored in HAZMAT boxes which are sealed and labeled. Once every 10 to 15 days the waste is picked up by a third-party waste management company (usually Tradebe out of Chicago). Barrels used for storing waste coating and solvent materials are drained, dried, and disposed of properly.

The conveyor line moves the parts into a separate room off the main line where the paint booths are located. The RTO (Serial #13-494006-1-1) services this separate paint booth room as well as the room next door which contains the paint mixing area, or paint kitchen. At the time of inspection, the RTO read a combustion temperature of 1804 deg F, inlet temperature of 146 deg F, and an outlet temperature of 314 deg F. The RTO uses a circular chart to track temperature readings and the facility has maintained these readings back to 2014. A sample circular chart is included with this report.

EU COATINGLINE applies 20 different paints and xylene cleaner/thinner. The facility submitted records of daily and monthly use of coating materials, emissions calculations and pertinent product chemical content.

Emission Limits

Pollutant	Limit	Time Period / Operating Scenario
1. VOCs	89.9 tpy	12-month rolling time period
2. Xylene	166.2 lb/day	Calendar Day
3. Solvent Naptha Heavy Aromatic	116.3 lb/day	Calendar Day
4. 2-(2- Butoxyethoxy) ethanol	33.2 lb/day	Calendar Day
5. Ethylbenzene	9098.1 lb/year	12-month rolling time period
6. Napthalene	5.0 lb/day	Calendar Day
7. Napthalene	242.7 lb/year	12-month rolling time period

The facility calculated their total annual VOC emissions at 0.998 tons for 2019 and 1.11 tons for 2020. The maximum 12-month rolling time period total VOC emission was 1.35 tons in 2019 and 1.11 tons for 2020. Use of the RTO keeps all other pollutants listed well below their emission limits. Daily records are included with this report.

SC	Condition	COMPLIANT?
III.1	Capture all waste coatings, etc., store in closed containers, and dispose of properly	X
III.2	Dispose of spent filters to minimize air contaminants to outside air	X
III.4	Submit a malfunction abatement plan for RTO- Received: 10/16/2014*	X
IV.1	Install and operate all filters in EU COATINGLINE properly	X
VI.2	Equip and maintain electrostatic high speed turbo disk rotary atomizing applicators efficiently	X
VI.3	Do not operate EU COATINGLINE without RTO. Proper RTO operation: -minimum VOC capture efficiency of 90% by weight -minimum VOC destruction efficiency of 95% by weight -minimum temperature of 1450 degF -minimum retention time of 0.5 sec.	X
VI.4	Install continuous temperature monitoring device in combustion chamber of RTO	X
V.1	Determine VOC content, water content, and density of any coating, purge or clean-up solvent as applied and as received, using Method 24 Testing -May determine COV content from manufacturer's data upon approval of AQD supervisor -Approval granted 11/2/2017	X
V.2	Upon 180 days of permit issuance, verify control efficiency of RTO (2013) -Testing done on 10-28-2014	X

Monitoring/Recordkeeping:

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SC	Condition	COMPLIANT?
VI.2	Monitor temperature in combustion chamber of RTO continuously, no more than 15-minute intervals	X
VI.3	Maintain current list of chemical compositions of each coating, purge, clean-up solvent (weight % of each component) from manufacturers- MSDSs	X
VI.4	Keep monthly records: a) Gallons (with water) of each coating, purge, clean-up solvent used and reclaimed b) VOC content (lb per gal) of each coating, purge, clean-up solvent as applied c) Monthly total VOC mass emissions calculations in tons per month d) 12-month rolling time period VOC mass emissions calculations in tons	X X X X
VI.5	Daily records: a) Gallons (with water) of each Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy) ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) containing material used. b) Where applicable, the gallons (with water) of each Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy) ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) containing material reclaimed. c) The Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy) ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) content (with water) in pounds per gallon of each material used. d) Xylene (CAS No. 1330-20-7), Solvent Naptha Heavy Aromatic (CAS No. 64742-94-5), 2-(2-Butoxyethoxy)ethanol (CAS No. 112-34-5), and Naphthalene (CAS No. 91-20-3) mass emission calculations determining the daily emission rate in pounds per calendar day.	X NA X X
VI.6	Monthly records: a) Gallons (with water) of each Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) containing material used. b) Where applicable, the gallons (with water) of each Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) containing material reclaimed. c) The Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) content (with water) in pounds per gallon of each material used. d) Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) mass emission calculations determining the monthly emission rate in pounds per calendar month. e) Ethylbenzene (CAS No. 100-41-4) and Naphthalene (CAS No. 91-20-3) mass emission calculations determining the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month.	X NA X X X

The facility submitted an extensive spreadsheet with all required information included. Records are included with this report.

EUCOATINGLINE appears to be in compliance with all permit requirements and limits at this time.

FGFACILITY

All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

Emission Limits

Pollutant	Limit	Time Period / Operating Scenario
1. Each individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month
3. VOCs	Less than 90 tpy	12-month rolling time period as determined at the end of each calendar month

The facility calculated their total annual aggregate HAPs emissions for 2019 at 0.38 tons and 0.413 for 2020. No individual HAP exceeded the permitted limit listed above. The maximum 12-month rolling time period total HAP emission was 0.39 tons in 2019 and 0.41 tons for 2020.

SC	Condition	COMPLIANT?
V.1	Determine HAP content of any coating, purge or clean-up solvent as applied and as received, using manufacturer's formulation data	X

Monitoring/Recordkeeping:

SC	Condition	COMPLIANT?
VI.2	Monthly records: a) Gallons or pounds of each HAP containing material used. X b) Where applicable, the gallons or pounds of each HAPS containing material reclaimed. NA c) The HAP content (pounds or gallons) of each HAP containing material used. X d) Individual and aggregate HAP emissions calculations determining the monthly emission rate of each in tons per calendar month. X e) Individual and aggregate HAP emissions calculations determining the cumulative emission rate of each in tons per 12-month rolling time period. X	
VI.3	Monthly records: a) Gallons or pounds of each VOC containing material used. X b) Where applicable, the gallons or pounds of each VOC containing material reclaimed. NA c) The VOC content (pounds or gallons) of each HAP containing material used. X d) VOC emissions calculations determining the monthly emission rate in tons per calendar month. X e) VOC emissions calculations determining the annual emission rate in tons per 12-month rolling time period. X	

FGFACILITY appears to be in compliance with all permit requirements and limits at this time.

NAME Rachel Benaway

DATE 9/20/2021

SUPERVISOR RIL 9/21/21