

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

N626159929

FACILITY: SUMMIT POLYMERS, INC. Plant One		SRN / ID: N6261
LOCATION: 4750 Executive Dr, PORTAGE		DISTRICT: Kalamazoo
CITY: PORTAGE		COUNTY: KALAMAZOO
CONTACT: Matthew Rangitsch , Manufacturing Engineer-Paint		ACTIVITY DATE: 08/19/2021
STAFF: Monica Brothers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced, scheduled inspection		
RESOLVED COMPLAINTS:		

This was an unannounced, scheduled inspection. Summit Polymers-Plant One is a facility that makes plastic parts for the automotive industry by using plastic injection molding machines. The parts are also coated in three robotic coating lines at the facility. They commenced operations in 1995 and are currently operating under PTI #176-97D.

Staff (Monica Brothers) arrived at the facility at about 9:00 am and met with Matt Rangitsch, Manufacturing Engineer-Paint, and Tyler Reynolds, Maintenance Manager. Mark Archambault, Human Resources Manager, who does all of the record keeping, was on vacation at that time. So, we did not review records during the onsite inspection. Mark emailed me all of the required records within a few days after the on-site inspection. Upon arrival, no visible emissions were seen coming from the facility.

Matt said that they now have about 200 employees who work three shifts per day, five days a week. I asked Matt if they had any boilers, emergency generators, fire pumps, parts washers, or burn off ovens, and he said that they only have one parts washer. They also have a small (20 gallons or less) still for recycling acetone, but it hasn't been used in years. This would be considered exempt from permitting under Rule 285(u). Matt said that they now have about 25 plastic injection molding machines. They currently have three coating lines, three cure ovens and one regenerative thermal oxidizer (RTO) as pollution control equipment for EU-BASE-CLEAR. The facility recently submitted a request to EGLE to use manufacturer's formulation data instead of doing Method 24 testing for each of their coatings. EGLE approved this request after comparing the manufacturer's formulation data VOC content against a sampling of coatings that were tested using Method 24.

Facility Tour:

I observed the 25 injection molding machines, which make plastic parts for the automotive industry. The acetone still was not operating at the time of inspection, and I did not see any opened containers of coating or solvent just sitting around while not in use.

All of the paint booths and cure ovens were operating at the time of inspection. They use IPA, only when needed, before the parts go into the cure ovens. EU-BASE-CLEAR is a coating booth for both water-based and solvent-based coatings. It has robotic applicators and a water wash system to control particulate matter. I observed that the water wash system was operating during the inspection. VOC is controlled by their new RTO. The RTO is required to operate at or above 1,450 °F when EU-BASE-CLEAR is operating. I observed the temperature monitor during the inspection, which read 1553°F.

EUBOOTH31 consists of two coating booths, EUBOOTH31_1 and EUBOOTH31_2. This coating line uses both water-based and solvent-based coatings. This coating line uses dry filters for particulate control. I observed that the dry filters were installed and operating correctly. Matt and Tyler said that they have a pressure differential alarm on each of the coating booths that will sound whenever the filters need to be changed, but that the filters get changed multiple times per day. I asked Matt and Tyler how they dispose of the spend filters, and they said that the filters just get sent to a landfill.

EUBOOTH35_2 is a coating booth for water-based and solvent-based coatings that uses robotic applicators and dry filters for particulate control. This booth may be used in conjunction with EUBOOTH32_1 when multiple layers of coating are required. I observed that the dry filters were installed and operating correctly during the facility tour.

FGBOOTH35 consists of three robotic coating booths, EUBOOTH35_1, EUBOOTH31_1, and EUBOOTH31_2. FGBOOTH35 uses both water-based and solvent-based coatings and has dry filters for particulate control. I observed that the dry filters were installed and operating correctly during the facility tour.

FGBOOTH35 consists of two robotic coating booths, EUBOOTH35_1 and EUBOOTH35_2. FGBOOTH35 uses both water-based and solvent-based coatings and has dry filters for particulate control. I observed that the dry filters were installed and operating correctly during the facility tour.

The cure ovens are all infrared air-dry units that have a temperature limit of 194°F. Matt and Tyler said that there is an alarm that will shut down the ovens if the temperature reaches this limit. The cure oven for Booth 31 was reading around 178°F, the cure oven for Booth 35 was reading about 180°F, and the cure oven for EU-BASE-CLEAR was reading 178°F at the time of inspection. I observed the parts washer, which had the lid closed and the rules posted. It is maintained by Safety Kleen.

Recordkeeping:

The following table shows the recordkeeping requirements for PTI #176-97D, along with my comments on the associated records that the company submitted to me. Summit Polymers seemed to be in compliance with their permit at the time of the inspection.

EU-BASE-CLEAR:

<u>MONTHLY</u>	<u>Limit</u>	<u>Observations</u>
Gallons(with water) of each coating and clean-up solvent used and reclaimed	N/A	Facility is keeping these records
VOC content (with water) as applied, including clean-up solvents	N/A	Facility is keeping these records

VOC emissions on a 12-month rolling basis	23.5 tons/year	Facility is keeping these records and is under this limit, with 2.23 tons/year in August being the highest for 2021 so far.
VOC, acetone, and TBA emissions on a 12-month rolling basis	40 tons/year	Facility is keeping these records and is under this limit, with 4.54 tons/year in August being the highest in 2021 so far.
RTO temperature records, continuous on 15 second intervals	Minimum temp: 1,450°F	Facility is keeping these records and is consistently above this required minimum temperature

EUBOOTH31:

<u>DAILY</u>	<u>Limit</u>	<u>Observations</u>
Continuous cure oven temperatures at 15-minute intervals	Maximum temperature: 194°F	Facility is keeping these records and is consistently under this limit.
Records of when EUBOOTH31_1 and EUBOOTH31_2 operate as EUBOOTH31.	N/A	Facility is keeping these records
Gallons (with water of each coating and clean-up solvent used and reclaimed	N/A	Facility is keeping these records
VOC content (minus water and with water) of each coating as applied	N/A	Facility is keeping these records

Daily volume-weighted average VOC content of coatings as applied	5 lb/gal minus water, as applied	Facility is keeping these records and is under this limit
<u>MONTHLY</u>	<u>Limit</u>	<u>Observations</u>
Gallons (with water of each coating and clean-up solvent used and reclaimed	N/A	Facility is keeping these records
Gallons (with water) of each glycol ether DB and diethyl glycol monobutyl ether acetate containing material used and reclaimed		Facility is keeping these records
VOC, acetone, and tert-butyl acetate (TBA) contents as applied	N/A	Facility is keeping these records
Glycol ether DB and diethyl glycol monobutyl ether acetate content of each material (with water) in lbs/gal	N/A	Facility is keeping these records
VOC emissions per month	N/A	Facility is keeping these records
Glycol ether DB and diethyl glycol monobutyl ether acetate emissions per month	N/A	Facility is keeping these records
VOC emissions on a 12-month rolling basis	72.0 tons/year	Facility is keeping these records and is under this limit, with 17 tons/year being average for 2021.
	112.0 tons/year	Facility is keeping these records and is under this limit,

VOC, acetone, and TBA emissions on a 12-month rolling basis		with about 47 tons/year being the highest in August for 2021 so far.
Glycol ether DB emissions on a 12-month rolling basis	1.27 tons/year	Facility is keeping these records and is under this limit
Diethyl glycol monobutyl ether acetate emissions on a 12-month rolling basis	1.01 tons/year	Facility is keeping these records and is under this limit

EUBOOTH35 2:

<u>MONTHLY</u>	<u>Limit</u>	<u>Observations</u>
Continuous cure oven temperatures at 15-minute intervals	Maximum temperature: 194°F	Facility is keeping these records and is consistently under this limit.
Gallons (with water) of each coating and clean-up solvent used and reclaimed	N/A	Facility is keeping these records
VOC, acetone, and TBA contents as applied	N/A	Facility is keeping these records
VOC, acetone, and TBA monthly emissions	N/A	Facility is keeping these records
VOC, acetone, and TBA emissions on a 12-month rolling basis	60 tons/year	Facility is keeping these records and is under this limit, with about 2.19 tons/year being the highest in August for 2021 so far.
Daily volume-weighted average VOC content of coatings as applied	5 lbs/gal, minus water, as applied	Facility is keeping these records and is under this limit.

FGBOOTHS:

<u>DAILY</u>	<u>Limit</u>	<u>Observations</u>
Continuous cure oven temperatures at 15-minute intervals	Maximum temperature: 194°F	Facility is keeping these records and is consistently under this limit.
<u>DAILY for FGBOOTHS (combined)</u>	<u>Limit</u>	<u>Observations</u>
Gallons (with water) of each coating and clean-up solvent used and reclaimed (where applicable).	N/A	Facility is keeping these records
Gallons (with water) of each glycol ether DB and triethylamine containing material used and reclaimed	N/A	Facility is keeping these records
Gallons (with water) of each formaldehyde containing material used and reclaimed	N/A	Facility is keeping these records
VOC, acetone, and tert-butyl acetate content of each coating and clean-up solvent, as applied	N/A	Facility is keeping these records
Glycol ether DB and triethylamine content in lbs/gal or percent by weight and density of each coating	N/A	Facility is keeping these records
Formaldehyde content of each material used, in lbs/gal or percent by weight and density	N/A	Facility is keeping these records
Daily volume-weighted average VOC content of coatings as applied		

	5 lbs/gal, minus water, as applied	Facility is keeping these records and is under this limit.
Glycol ether DB emissions in lbs/day	20.9 lbs/day	Facility is keeping these records and is under this limit.
Triethylamine emissions in lbs/day	7.3 lbs/day	Facility is keeping these records and is under this limit.
<u>Monthly for FGBOOTHs (combined)</u>	<u>Limit</u>	<u>Observations</u>
VOC monthly emissions, separately and combined	N/A	Facility is keeping these records
VOC, acetone, and TBA monthly emissions	N/A	Facility is keeping these records
Formaldehyde monthly emissions	N/A	Facility is keeping these records
VOC emissions on a 12-month rolling basis	72 tons/year	Facility is keeping these records and is under this limit, with about 18 tons/year being average for 2021.
VOC, acetone, and TBA combined emissions on a 12-month rolling basis	132 tons/year	Facility is keeping these records and is under this limit, with about 50 tons/year in August being the highest so far in 2021.
Formaldehyde emissions on a 12-month rolling basis	152.6 lbs/year	Facility is keeping these records and is under this limit, with 0.17 lbs/year

		in August being the highest so far in 2021.
<u>MONTHLY for EUBOOTH35 1, EUBOOTH31 1, and EUBOOTH31 2, separately</u>	<u>Limit</u>	<u>Observations</u>
Gallons (with water) of each coating and clean-up solvent used and reclaimed (where applicable).	N/A	Facility is keeping these records
VOC, acetone, and tert-butyl acetate content of each coating and clean-up solvent, minus water and with water	N/A	Facility is keeping these records
VOC, acetone, and TBA monthly emissions	N/A	Facility is keeping these records
VOC, acetone, and TBA combined emissions on a 12-month rolling basis	60 tons/year for each booth	Facility is keeping these records and is under these limits.

FGBOOTH35:

<u>DAILY</u>	<u>Limit</u>	<u>Observations</u>
Continuous cure oven temperatures at 15-minute intervals	Maximum temperature: 194°F	Facility is keeping these records and is consistently under this limit.
Gallons (with water) of each coating and clean-up solvent used and reclaimed (where applicable).	N/A	Facility is keeping these records
	N/A	Facility is keeping these records

Gallons (with water) of each glycol ether DB material used and reclaimed		
Gallons (with water) of each Diethyl glycol monobutyl ether acetate containing material used and reclaimed	N/A	Facility is keeping these records
VOC content (minus water and with water) of each coating and solvent, as used	N/A	Facility is keeping these records
Glycol ether DB content of each material	N/A	Facility is keeping these records
Diethyl glycol monobutyl ether acetate content of each material	N/A	Facility is keeping these records
<u>MONTHLY</u>	<u>Limit</u>	<u>Observations</u>
VOC emissions per month	N/A	Facility is keeping these records
Glycol ether DB emissions per month	N/A	Facility is keeping these records
Diethyl monobutyl ether acetate emissions per month	N/A	Facility is keeping these records
VOC emissions on a 12-month rolling basis	72 tons/year	Facility is keeping these records and is under this limit, with 1.40 tons/year in August being the highest so far in 2021.
Glycol ether DB emissions on a 12-month rolling basis	2,700 lbs/year	Facility is keeping these records and is under this limit,

		with 3.51 lbs/year in August being the highest so far in 2021.
Diethyl glycol monobutyl ether acetate emission on a 12-month rolling basis	2,700 lbs/year	Facility is keeping these records and is under this limit, with 52.75 lbs/year in August being the highest so far in 2021.

FGFACILITY:

<u>MONTHLY</u>	<u>Limit</u>	<u>Observations</u>
HAP content of any coatings as received and as applied	N/A	Facility is keeping these records
VOC content of materials	N/A	Facility is keeping these records
Ethylbenzene content of materials	N/A	Facility is keeping these records
Cumene content of materials	N/A	Facility is keeping these records
Gallons of lbs of each VOC containing material used and reclaimed	N/A	Facility is keeping these records
Gallons (with water) of Group 1 coatings used on a 12-month rolling basis	5,200 gallons	Facility is keeping these records and is under this limit, with 830 gallons in January being the highest so far in 2021.
Gallons (with water) of Group 2 coatings used on a 12-month rolling basis	36,000 gallons	Facility is keeping these records and is under this limit, with 5,824.24 gallons in August being the highest so far in 2021.

Gallons (with water) of Group 3 coatings used on a 12-month rolling basis	4,000 gallons	Facility is keeping these records and is under this limit, with 1,438.94 gallons in August being the highest so far in 2021.
Gallons (with water) of Group 4 coatings used on a 12-month rolling basis	13,000 gallons	Facility is keeping these records and is under this limit, with 2,459.72 gallons in January being the highest so far in 2021.
Gallons (with water) of Group 5 coatings used on a 12-month rolling basis	4,500 gallons	Facility is keeping these records and is under this limit, with 1,084.60 gallons in January being the highest so far in 2021.
Gallons (with water) of Group 6 coatings used on a 12-month rolling basis	420 gallons	Facility is keeping these records and is under this limit, with 0 gallons being used in 2020 and 2021.
Gallons or pounds of each HAP containing material used and reclaimed	N/A	Facility is keeping these records
Gallons (with water) of each ethylbenzene containing material used and reclaimed	N/A	Facility is keeping these records
Gallons (with water) of each cumene containing material used and reclaimed	N/A	Facility is keeping these records
Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.	N/A	Facility is keeping these records

<p>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.</p>	<p>9.0 TPY (Individual), and 22.5 TPY (Aggregate)</p>	<p>Facility is keeping these records and is under these limits.</p>
<p>VOC monthly emissions</p>	<p>N/A</p>	<p>Facility is keeping these records</p>
<p>Ethylbenzene monthly emissions</p>	<p>N/A</p>	<p>Facility is keeping these records</p>
<p>Cumene monthly emissions</p>	<p>N/A</p>	<p>Facility is keeping these records</p>
<p>VOC emissions on a 12-month rolling basis</p>	<p>89 tons/year</p>	<p>Facility is keeping these records and is under this limit, with 19 tons/year in August being the highest so far in 2021.</p>
<p>Ethylbenzene emissions on a 12-month rolling basis</p>	<p>2.91 tons/year</p>	<p>Facility is keeping these records and is under this limit, with 38.09 lbs/year in August being the highest so far in 2021.</p>
<p>Cumene emissions on a 12-month rolling basis</p>	<p>0.33 tons/year</p>	<p>Facility is keeping these records and is under this limit, with 5.73 lbs/year in August being the highest so far in 2021.</p>

NAME Monica Brade

DATE 9/24/21

SUPERVISOR RIL 9/28/21