



AkzoNobel



To: Joe Forth
From: J. Poniewierski
Date: October 18th, 2021
Subject: **HSERPT 21-022 Response letter EGLE Air Compliance Inspection**

On August 24th, 2021 Joe Forth came to the Pontiac site for an air compliance inspection.

The inspector reviewed the following items.

- Full review of our current air permit for 27 Brush and 49 Brush
- Site inspection (CBU, Main Plant and 49 brush)
 - Dust Collectors
 - Portable tanks
 - Cold Cleaners
 - Hazardous waste areas
 - Back up generator

Summary

A summary report was issued September 30th listing two areas of violation. A violation letter was received on October 1st. The violations are listed below.

Process Description	Rule/Permit Condition Violated	Comments
Coating manufacturing	PTI No. 184-06 FGPAINT Special Conditions 3.2(a-d), 3.9, FGFACILITY Special Conditions 4.1(a-c), 4.3	The facility appears to have exceeded their facility wide VOC emission limit. The facility was also not keeping 12-month rolling time totals for gallons produced, VOC emissions or HAP emissions.
Coating manufacturing	PTI No. 165-19 FG-Marine Special Conditions I.2, VI.3	The facility incorrectly calculated their VOC emissions for FGMarine. According to my calculations, the facility is in exceedance of their VOC emission limit for FG-Marine. The facility was also not keeping 12month rolling totals for the VOC emissions.



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Response

Violation 1

Coating manufacturing	PTI No. 165-19 FG-Marine Special Conditions I.2, VI.3	The facility incorrectly calculated their VOC emissions for FGMarine. According to my calculations, the facility is in exceedance of their VOC emission limit for FG-Marine. The facility was also not keeping 12month rolling totals for the VOC emissions.
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PTI No. 165-19 FGMARINE I.2, VI.3 Emission Limit (s)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. PM	0.20 lb per ton of solids charged	Hourly	FG-Marine, while charging solids	SC VI.2	R 336.1331
2. VOC	5.9 tpy	12-month rolling time period as determined at the end of each calendar month	FG-Marine	SC VI.3	R 336.1205(1)(a), R336.1702(a)

FG Marine 12 Month
Rolling average

Area	Year	Month	Gallons	Emissions VOC (lbs)	Emissions HAP (tons)
49BSH	2021	Aug	21,020.00	0.017	0.017
49BSH	2021	Jul	9,913.00	0.008	0.008
49BSH	2021	Jun	13,934.00	0.015	0.015
49BSH	2021	May	14,062.00	0.008	0.008
49BSH	2021	Apr	9,835.00	0.012	0.012
49BSH	2021	Mar	17,112.00	0.019	0.019
49BSH	2021	Feb	16,629.00	0.013	0.013
49BSH	2021	Jan	11,656.00	0.007	0.007
49BSH	2020	Dec	11,966.00	0.008	0.008
49BSH	2020	Nov	12,000.00	0.011	0.011
49BSH	2020	Oct	21,589.00	0.016	0.016
49BSH	2020	Sept	22,841.00	0.019	0.019
			Total	0.15 tpy	0.15 tpy

Summary: The VOC emissions for FG-Marine for the noted 12 month rolling period were 0.15 tpy. Permit requirement is FG-Marine VOC emissions must be under 5.9 tpy. FG-Marine is in compliance with permit requirements.

HAPS was not part of FGMARINE compliance requirements and therefore was not being recorded. FGFACILITY however does require HAPS from all site units. To start recording HAPS emissions from FGMARINE HAPS emissions is considered the worst-case scenario with 100% of VOC emissions considered HAPS.

As part of the data collection a 12 month rolling average was not requested for FG-Marine, one would have been supplied if requested.

Example calculation

I believe there was an improper assumption the calculation for emissions VOC was reported in tons when it was actually in pounds. The emission factor used is # per ton and when multiplied by the batches tons they cancel out leaving #s. Please see sample calculation method for row 22 on RawData tab of attached spreadsheet.

E	H	I	J	K	L	M	N	O	P	Q	R (new column)	W	X
Psting Date	Material	Material Number	Batch	Batch Quantity(lbs)	Batch Qty in Volume(gal)	Permit Max Batch Size(gal)	Batch Size Minus permit Limit(gal)	Making/filling VOC(#)	Mixing VOC(#)	Emission VOC Total (lbs)	Emission VOC Total (tons)	Formula VOC(lbs/gal)	Individual Batch VOC(lbs)
4-21-21	20043835	Cellcote 6650 NCA049	0010104052	2807.97	313.00	470.70	-157.70	0.14	0.95	1.09	0.00055	3.2	1000.33

The batch of NCA049 that made was 313 gallons (2807.97#).

Column X calculates the total VOC's in a batch using our formula management software to be 1000# (0.5 ton) for this specific batch total.

Using the emission factors from our permit:

0.28 3 - Making/Filling Emission Factor (# per ton of VOC used)
1.9 3 - Mixing Emission Factor (# per ton of VOC used)

We can see the following

- The calculation for Making/Filling Emissive VOC's in Column O is : 0.28 (#/Ton VOC)*(0.5 Ton VOC) = 0.14#
- The calculation for Mixing Emissive VOC's in Column P is : 1.9 (#/Ton VOC)*(0.5 Ton VOC) = 0.95#
- Total Emissive VOC's in Pounds is in Column Q : 0.14# + 0.95# = 1.09# total for the batch
- Column R is then the conversion of that pound value back to Tons : 1.09# / (2000#/Ton) = 0.00055 Tons

On the Summary Tab of attached spread sheet, Column D is the total Emissive VOC's of the batches on a monthly basis in Tons : 0.017 for August 2021 (Cell D20)

Response

Violation 2

Coating manufacturing	PTI No. 184-06 FGPAINT Special Conditions 3.2(a-d), 3.9, FGFACILITY Special Conditions 4.1(a-c), 4.3	The facility appears to have exceeded their facility wide VOC emission limit. The facility was also not keeping 12-month rolling time totals for gallons produced, VOC emissions or HAP emissions.
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PTI No. 184-06 FGFACILITY Permit emissions limits 4.1(a-c)

Pollutant	Equipment	Limit	Time Period	Testing / Monitoring Method	Applicable Requirement
VOC	FGFACILITY	60 tpy	12-month rolling*	SC 3.2	R336.1205(3)
Individual HAP	FGFACILITY	<9 tpy	12-month rolling*	SC 3.2	R336.1205(3)
Total HAPs	FGFACILITY	<22.5 tpy	12-month rolling*	SC 3.2	R336.1205(3)

*12-month rolling time period as determined at the end of each calendar month.

12 month rolling (CBU, SBP, SBNP, LBP, LBNP, WSBP, WLBP)

Year	Month	Gallons	VOC (lbs)	Emissions VOC (tons)	Emissions HAP (tons)
2021	Aug	321,880.00	1,018.79	0.51	0.22
2021	Jul	286,652.00	894.04	0.45	0.20
2021	Jun	287,898.00	962.02	0.48	0.21
2021	May	302,537.00	990.42	0.50	0.22
2021	Apr	240,489.00	812.06	0.41	0.17
2021	Mar	301,457.00	943.69	0.47	0.20
2021	Feb	299,593.00	964.77	0.48	0.21
2021	Jan	312,362.00	979.51	0.49	0.22
2020	Dec	312,998.00	935.39	0.47	0.21
2020	Nov	254,507.00	894.96	0.45	0.20
2020	Oct	300,098.00	1,018.01	0.51	0.23
2020	Sept	309,335.00	1,029.13	0.51	0.21
Total				5.72 tpy	2.49 tpy

12 month rolling FGFACILITY (FGMARINE+ CBU, SBP, SBNP, LBP, LBNP, WSBP, WLBP)

12 Month Sum	Gallons	Emissions VOC (lbs)	Emissions VOC (tons)	Emissions HAP (tons)
Sept 2020 - Aug 2021	3,691,696.00	12,175.79	5.87	2.64

Summary: VOC for FGFACILITY is 5.87 tpy with a permit requirement of under 60 tpy.
HAPS for FGFACILITY is 2.64 tpy.

As part of the data collection a 12 month rolling average was not requested for FGFACILITY, one would have been supplied if requested.

If you have any questions on the spread sheets or calculation methods, please contact me and we can schedule a conference call to review the calculation process.

Sincerely,

Jeff Poniewierski



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