

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

N144362434

FACILITY: Palmer Promotional Products		SRN / ID: N1443
LOCATION: 33525 Groesbeck Hwy., FRASER		DISTRICT: Warren
CITY: FRASER		COUNTY: MACOMB
CONTACT: Al Vespa , Director of Manufacturing and Engineering		ACTIVITY DATE: 06/16/2022
STAFF: Robert Joseph	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Scheduled inspection of coating facility		
RESOLVED COMPLAINTS:		

On March 30 and May 25, 2022, I, Michigan Department Environment, Great Lakes, and Energy-Air Quality Division staff Robert Joseph, and Mark Dziadosz, conducted an on-site scheduled inspection of Palmer Promotional Products (SRN: N1443) located at 33525 Groesbeck Highway, Fraser, Michigan. The purpose of the inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451; the Michigan Department Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) Administrative Rules, and conditions of the facility's Permit to Install (PTI) 125-16.

Background information

The facility primarily manufactures and assembles (milling, sandblasting, welding) various promotional products consisting of store signs and displays, menu boards, clocks, bar accessories, write-on boards, formed metal signs, and other outdoor items for retail establishments. Once completed, the items are coated at the facility and then shipped to the customer or just shipped to the customer.

The facility is now listed as a true minor source after incorrectly being identified as a synthetic minor source. The facility no longer is required to submit a MAERS report after doing so between 2017-2021. Per the AQD correspondence sent to the facility in March 2022, the facility was incorrectly classified as a Category E fee – subject source, which is the designation for a facility holding a Title V opt-out permit. Palmer Promotional is a true minor source and should not have been assessed a fee so they were removed from the reporting list.

Opening introduction

We arrived on site after 11:30 a.m. and met with Al Vespa, Director of Manufacturing and Engineering. Al indicated the facility has shifted away from coating many of the products they produce to primarily assembling those items. The facility operates Monday – Friday 7:30 a.m. 5:30 p.m. and employs approximately 20 employees.

Facility Tour

Al provided us a tour of the facility where the products are assembled via shot blasting, mechanical cutting, and welding. All processes are exempt PTI processes per Rule 285(2)(l)(vi)(B) – equipment for shot-blasting that has emissions that are released only into the general in-plant environment (shot blasting, mechanical cutting), and Rule 285(2)(i) for welding. None of the three spray booths were in operation at the time of inspection, with paint booths 1 and 2 being used as a storage area.

AI indicated that only one paint booth has primarily been used on their products due to changing customer demand.

PTI 125-16 (issued August 2016)

FG-DisplayFixture

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment
1. VOCs	7.3 tpy	12-month rolling time period as determined at the end of each calendar month	FG-DisplayFixture

Facility records indicate that under one ton is being emitted per 12-month rolling time period for nearly three years.

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment
1. VOC content of adhesive material	0.9 lb/gal (minus water) ^a as applied	Instantaneous	EU-AdhesiveLine
2. VOC content of adhesive cement spray material	4.95 lb/gal (minus water) ^a as applied	Instantaneous	EU-CementSB-01, EU-CementSB-02, EU-CementSB-03

An analytical test was conducted per reference test method 24 for the facility's two coatings of National Casein 5762 (material #1) and Choice Brands Adhesive F-156 (material #2) and each was determined to be below the permit limits.

The VOC content of the adhesive material (material 1) was determined to be 0.52 lb/gal, and the VOC content of adhesive cement spray material (material 2) was determined to be 4.85 lb/gal. Both were minus water.

III. PROCESS/OPERATIONAL RESTRICTIONS

There were no observations of waste coatings, adhesives, cements, purge and cleanup solvents in open containers as all were closed. The facility replaces the filters on a monthly basis at minimum or more frequently depending on project load and they are disposed of in a receptable bin. There were no visible fugitive emissions regarding VOC containing materials, coatings, reducers, solvents and thinners.

IV. DESIGN/EQUIPMENT PARAMETERS

The adhesive spray booth portion of FG-DisplayFixture are all equipped with filters and appeared to be in good condition with no observable gaps between them. The facility utilizes HVLP spray guns for the paint booths and pressure test caps were available, but no tests were conducted given that no booths were in operation at the time of inspection.

V. TESTING/SAMPLING

The facility conducted testing via RTI Laboratories on January 27, 2017, with test results submitted on February 6, 2017. The following data was obtained for each:

Sample	5762 national casein (VOC content of adhesive material limit #1)	F-156 choice brands (VOC content of adhesive cement spray - material limit #2)
Density	9.23 lb/gal	6.72 lb/gal
% Non-volatile	59.28	19.46
% Water	37.39	0.38
% Volatiles less exempts	3.33	49.65
VOC as received	0.31 lb/gal	3.34 lb/gal
VOC minus water	0.52 lb/gal (permit limit 0.9)	4.85 lb/gal (permit limit 4.95)

The test data above was verified with the testing laboratory (RTI Laboratories) via spreadsheet. The data when entered with the EPA Method 24 calculation provides the density of each material (VOC minus water) with both under the permit limit.

VI. MONITORING/RECORDKEEPING

The facility maintains the chemical composition of each material via Safety Data Sheets. The facility maintains records of each VOC containing material used with monthly usage varying up to approximately 15 gallons per month of the adhesive cement (material #2), and 30 gallons per month of adhesive material (material #1). The VOC content of each material of the cement adhesive and the water-based adhesive are listed in the Safety Data Sheets ranging from 0% - 60%.

Monthly emissions range between 0.005 tons and 0.083 tons per month, and a 12-month rolling total ranging between 0.01 tons and 0.85 tons.

VII. REPORTING

The facility notified the AQD via correspondence on January 17, 2017 (hard copy received on January 20, 2017), that EU-CementSB-03 was installed on December 18, 2016.

VIII. STACK/VENT RESTRICTIONS

There were no visible emission observations with the stacks.

Conclusion

Based on the AQD inspection and records review, Palmer Promotional Products has met the requirements of the Federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division (EGLE-AQD) Administrative Rules and conditions of the facility's Permit to Install (PTI) 125-16.

NAME Robert Joseph

DATE 06-16-22

SUPERVISOR Joyce