

Statement of Basis
Fehrer Automotive-Alabama, LLC
(Automotive Parts Processes)
Major Source of VOC Emissions

Introduction

On December 28, 2020, Fehrer Automotive Alabama, LLC, (Fehrer), submitted a Title V major source permit renewal application for the manufacture of automotive parts (SIC # 3086). Fehrer is located in Gadsden, Alabama. This renewal permit issuance will add two permitted units. Line AL-F and Line AL-G currently have Air Permits and will be included in this renewal. Final information to complete the application was received on February 24, 2021.

Operation

The facility manufactures foam automobile seats and headrests and operates 24 hours a day, five days a week.

LINE A OPERATION (smaller line)

Fehrer has a conveyor system that takes an aluminum mold and applies a mold release spray, followed by iso and poly spray foam. The molds close and the foam expands and cures. The molds are heated with a water jacket and uses an electric water heater (thermalator). The molds are then cleaned after the product is removed. This line has a stage media filter, a metal screen and a fabric filter, to capture particulates before the air is exhausted to the atmosphere.

LINE B OPERATION (larger line)

This operation is similar to Line A, but larger.

LINE C OPERATION

This operation is smaller than the ones above and is used for smaller items.

LINE D OPERATION

This operation is smaller than A and B and is used for smaller items.

LINE E OPERATION

This line makes parts for Telsa. This line is similar to those above but utilizes two robots spraying the mold release agent before the foam is applied.

LINE F OPERATION

This line is similar to Line B with two robots and a worker manually spraying the release agent on the molds. This line has a prefilter followed by Herding filter unit.

LINE G OPERATION

This line is a circular line that has 3 identical stations with two molds each. The molds are stationary, and the robot will move between the stations applying the foam after a manual application of mold release agent. This line has a fabric filter to capture particulates before the air is exhausted to the atmosphere.

MIXING AREA

Fehrer has 5 process tanks that store 1, 2, and 3 poly used in the process. They have one mixing tank and 5 holding tanks. R10 (3100), R08 (3510), R07 (4025), R06 (2800), R05 (3500), and R02 (Mixing Tank) are the tanks in service. The mold release is stored in 250 gallon totes.

Fehrer has no boilers or generators.

STORAGE AREA

Fehrer has 8 (6 poly and 2 iso) large storage tanks that store chemicals used in the process. Normally one is used and one is on standby.

Fehrer has 6 (4 poly and 2 iso) large storage tanks that store chemicals used in the process that will be used on Line F (Hot Cure).

Regulations

Title V:

The regulated criteria air contaminants emitted into the atmosphere by the manufacturing of the automotive parts are volatile organic compounds (VOC), which come from the organic solvents in the mold release agents. The potential emissions of VOCs exceed the threshold of 100 tons per year. Therefore, Fehrer is considered a major source for Title V.

The operations are also a minor source of hazardous air pollutants (HAPs) as listed in Appendix G of the ADEM Air Regulations.

The potential HAP emissions from the coating operation would not be emitted in such quantities as to exceed the Title III and Title V major source thresholds. The HAP emission thresholds for a major source are 10 tons for a single HAP and 25 tons for a combination of any HAPs.

PSD:

Fehrer's current permits limit their VOC emissions to 235 TPY to restrict their potential emissions of criteria pollutants (VOCs) to below major source thresholds for PSD purposes. Fehrer would remain a minor source in respect to PSD after this permitting procedure.

NSPS:

Fehrer is not subject to the NSPS for storage tanks because the sizes of all tanks are below the 19,813 gallon threshold.

MACT:

There is a MACT standard for Flexible Polyurethane Foam Production (Part 63 Subpart III), but this facility is not subject because the facility is not a major source of HAP emissions.

There is a MACT standard for Flexible Polyurethane Foam Production and Fabrication Area Sources (Part 63 Subpart OOOOOO), and this facility is subject to this regulation. The facility has submitted documentation that they do not use methylene chloride in equipment cleaning and mix-head flushing, and as a mold release agent. Thus, they are in compliance with this regulation.

There are no other MACT standards, New Source Performance Standards (NSPS), or other state regulations applicable to this facility. An Air Toxics review was conducted previously; therefore, one is not required with this renewal.

CAM

Compliance Assurance Monitoring (CAM) is not applicable for the units listed herein because potential uncontrolled emissions of criteria pollutants do not exceed 100 tons per year on any one unit with a control device.

The following is a list of all the facility's sources (individual emissions units) which will be part of the facility's Title V Major Source Operating Permit:

Permit Unit No.	Description of Unit
001	AL- 1
002	AL- 2
003	AL- 3
004	AL- 4
005	AL- 5
006	AL- 6
007	AL- 7

Monitoring of Emissions

Fehrer maintains records of monthly solvent usage and solvent analysis to show compliance with their synthetic minor PSD limits. These will be submitted quarterly.

Permitting Fees

Title V major sources are subject to operating permit fees, which charge the facility a yearly amount based on the actual emission rate of pollutants for the previous year.

Affected States Notification

No notification of the issuance of this major source operating permit to any affected state bordering Alabama is necessary since all states are notified automatically when the public notice is issued.

Recommendations

I recommend that the attached permit be issued to Fehrer.



Kevin Fulmer
Chemical Branch
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