



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

SEP 26 2019

DATE:

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Titan Wheel Corporation of Illinois

FROM: Marie St. Peter, Environmental Engineer
AECAB (MN/OH)

THRU: Brian Dickens, Section Chief
AECAB (MN/OH)

TO: File

BASIC INFORMATION

Facility Name: Titan Wheel Corporation of Illinois

Facility Location: 2701 Spruce St, Quincy, Illinois 62301

Date of Inspection: July 30, 2019

EPA Inspector(s):

1. Marie St. Peter, Environmental Engineer
2. Sarah Clark, Environmental Engineer

Other Attendees

1. Robert George, Corporate Director Environmental Compliance, Titan International, Inc.
2. Ben Egan, Production Manager, Titan Wheel Corporation of Illinois
3. Angela Myers, Environmental Coordinator, Titan Wheel Corporation of Illinois

Contact Email Address: robert.george@titan-intl.com

Purpose of Inspection: Clean Air Act inspection

Facility Type: Automotive parts surface coating

Arrival Time: 12:00 PM central

Departure Time: 3:05 PM central

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from individuals listed as “other attendees” unless otherwise noted.

Process Description:

Titan Wheel Corporation of Illinois (the Facility) produces wheelsets for off-road vehicles. To produce these wheelsets, the Facility receives steel in the form of flat sheets and, in a lesser amount, rolls. These raw materials are first washed and welded using mig/tig, robotic, and/or butt welding techniques. Then, the wheel is formed using dies and/or presses. Once formed, the wheelset is coated using an electrodeposition coating and a powder or liquid basecoat. The wheelset is then fully cured, at which point it becomes ready for sale.

Staff Interview:

The Facility operates two powder coating lines, one of which is permitted under its federally enforceable state operating permit (FESOP), the other under Illinois’ Registration of Smaller Sources (ROSS) program. The latter powder line is a newer installation, which was believed to have been installed in 2013. There are also liquid coating lines, which are permitted under the Facility’s FESOP. For these liquid coating lines, the Facility primarily uses water-based coatings—meaning they have a low volatile organic compounds (VOCs) content—at this time. When manufacturing military grade wheelsets, though, the Facility uses urethane-based coatings. This urethane-based coating was cited as being the source of the Facility’s hazardous air pollutant (HAP) emissions. For air emissions control, the Facility uses filters on the coating lines. The Facility also uses afterburners in its ovens. In determining its air emissions from the coating lines, the Facility assumes all VOC emissions potentially generated at the liquid coating lines are released to the atmosphere; allowing the Facility to estimate its VOC emissions from this process via multiplying a coating’s usage by the chemical listed in the coating’s Safety Data Sheet. For the powder coating lines, the Facility assumes an emission rate of 0.1 pounds per hour for both particulate matter and VOCs. Prior to changing to a new coating color being applied to a wheelset, the Facility flushes its applicators using a material that contains VOC. The Facility tries to implement block painting—meaning it coats a series of wheelsets the same color—as much as possible, which reduces the frequency at which it must flush its coating applicators.

In addition to the coating lines, there is a burn off oven and small repair booths. The burn off oven is used for cleaning parts (e.g., the hooks that convey products through the coating booths), and it is assumed that there is a pound of paint removed per hook burned. Repair booths are used for minor imperfections only. If a larger repair is necessary, the wheelset is sent through a coating line again.

Tracking of material usage at the Facility is done manually, and that information is transferred over to an access database which is used to estimate emissions. For its ovens, the Facility estimates its emissions using an emission factor which is associated with its afterburners.

The Facility's steel is the source of its manganese emissions. In estimating emissions from the welding processes, the Facility primarily uses an AP-42 emission factor. Air emissions resulting from other metal processing steps are estimated to be ½% of the total weight of processed metals. In determining the total weight of processed metals, the Facility uses ISO specification sheets or ATSM standards for the different types of steel it receives. It then multiplies the percent weight of a metal species in a type of steel by the total amount of that type of steel received in a year.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

EPA noted that the ROSS permitted powder coating line was contiguous with the rest of the Facility, which is permitted under its FESOP. EPA also noted that the ROSS permitted powder coating line receives formed wheels from the area of the Facility which is covered by its FESOP.

Additionally, while it is considered to constitute only one powder coating line, the ROSS permitted process actually contains three powder coating booths. The facility is only able to use one booth at a time.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Safety data sheets for the electrodeposition coating bath, liquid coating line flush material, and urethane-based liquid line catalyst.
2. 2018 Titan Wheel Quincy Form R Threshold Database

CLOSING CONFERENCE

Requested documents:

- Daily paint usage log
- ROSS application for powder coating line
- 2013 FESOP
- Powder coating line flow schematic
- Updated facility site map

Compliance Assistance: Due to the physical location and nature of its operations, EPA suggested that the Facility contact the state to determine if the powder coating line, which is permitted under the Facility's ROSS permit, should be incorporated into its FESOP permit.

SIGNATURES

Report Author:  Date: 9/25/2019

Section Chief:  Date: 9/26/19