

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection**

B886042675

FACILITY: Tesa Tape Inc.		SRN / ID: B8860
LOCATION: 324 S Union ST., SPARTA		DISTRICT: Grand Rapids
CITY: SPARTA		COUNTY: KENT
CONTACT: Al Tramper , Plant Engineer		ACTIVITY DATE: 12/14/2017
STAFF: Adam Shaffer	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled, unannounced inspection.		
RESOLVED COMPLAINTS:		

Air Quality Division (AQD) staff Adam Shaffer (AS) arrived at tesa Plant Sparta, LLC (TT) facility at 10:18 am on December 14, 2017 to complete a scheduled, unannounced inspection.

Facility Description

Prior to entering the facility, offsite odor and visible emission observations were completed. Weather conditions at the time of the inspection were mostly cloudy, winds from the southeast and temperatures in the single digits. No significant odors or visible emissions were identified.

Upon arrival, AQD staff AS initially met with Mr. Kai Fibrandt, Plant Manager and Mr. Al Tramper, Plant Engineer shortly after. A walk through of the facility was completed with Mr. Tramper. TT is a global manufacturing facility of pressure sensitive adhesive tape and is in operation with one Opt Out Permit to Install (PTI) No. 12-05A. TT is a synthetic minor source for hazardous air pollutants (HAPs). Additionally, the source is subject to New Source Performance Standards (NSPS) Subparts RR. Conditions related to these standards are discussed further below in this report.

During the initial discussion, Mr. Tramper stated that TT had recently switched to a new database system and that he did not have the records for EUCOATER2591 and FGFACILITY since October 2017. The immediate unavailability of the October 2017 records due to the transition to a new database system was concluded to not be a violation and the October 2017 records were later provided by Mr. Tramper.

EU-WB-Coat-Ln

This emission unit is for the newly installed waterborne coating line. During operation pressure sensitive tape is coated with waterborne adhesives and dried in a natural gas fired oven. Additionally, the process is equipped with adhesive tanks and an adhesive mixing area. Per Special Condition (SC) VII.1 a notification of substantial completion and commencement of trial operations was submitted to the AQD on May 3, 2017. The 12-month rolling total of volatile organic compounds (VOCs) is limited to 45.0 tons per year (tpy). Records were started in April 2017 for this emission unit. As of October 2017, the 12-month rolling total is 6.32 tpy which is well within the permitted limit; however, a full 12-month operating period hasn't been completed at this time. During the inspection it was identified that materials utilized by TT do not contain Ethylene Oxide (CAS No. 75-21-8). This limit was placed into the permit if a material (Optiflo H7500-VF) was to be used. Based on records provided, this was verified to have not been used. AQD staff AS stated that TT should from now on include records stating that no Ethylene Oxide (CAS No. 75-21-8) emissions were emitted each month. VOCs are also limited to an instantaneous limit of 0.3 lbs/gal (minus water) as applied. Trial operations for the low viscosity/high viscosity materials were completed in April and May respectively. The VOC content minus water as applied results for the low viscosity/high viscosity materials were 0.25 lbs/gal and 0.26 lbs/gal respectively. This is within the permitted limit of 0.3 lbs/gal.

During the inspection the water borne coating line was observed in operation. TT has two base adhesive materials that are utilized for this coating line. The adhesives are stored in four 30,000 kg size tanks. The adhesives are pumped into one of two mixing stations where select components are added to make each desired adhesive material. The material is then pumped to the coating line and applied to a fleece lining. Once applied to the lining it goes through sixteen dryers which consist of fifteen for drying and one for cooling. During the inspection Mr. Tramper stated that TT does not reclaim any materials used. Waste materials are stored and shipped off site for removal. Set Environmental collects the waste materials. AQD staff AS identified several open containers while observing the coating line. AQD staff AS advised Mr. Tramper on making sure all containers are closed to limit the amount of fugitive emissions. The remaining containers observed in the areas surrounding the coating line were properly sealed. TT appears to be properly recovering and disposing of all applicable materials used for this coating line. TT utilizes a web cleaning device that removes particulate matter

(PM) from the adhesive material prior to entering the ovens. TT has never had to change filters yet for the web cleaning device since operation, but would be as needed. Roller applicators were observed being used for the coating line. Per SC.V.1 TT shall use Test Method 24 to determine the VOC content for all coating materials used for this emission unit. Test Method 24 results were requested and reviewed for the top five coating materials used. The records provided show that TT is adequately using Test Method 24 to determine the VOC contents for coating materials used. TT appears to be adequately keeping track of usage rates for all materials used, VOC contents (minus water and with water) of each material used, VOC monthly and 12-month rolling total emissions.

One stack is listed in association with this emission unit and was observed during the inspection. Though the exact dimensions were not measured, they appeared to be consistent with Opt Out PTI No.12-05A. After further review of NSPS Subpart RR, no additional requirements are necessary for TT to demonstrate compliance with EU-WB-Coat-Ln.

EUCOATER2591

This emission unit is for the solvent based coating line, which includes the mixing room, and film coating line with coating stations for primer, release coating and adhesive. The coating line is also equipped with a non-fugitive enclosure (NFE), with a thermal oxidizer used to control emissions captured. Additionally, the PM from the granular portion is controlled by a baghouse.

The 12-month rolling total of VOCs for this emission unit is limited to 25 tpy. As of October 2017, the 12-month rolling total for VOCs was 6.20 tpy, which is well within the permitted limit. Previous 12-month rolling totals reviewed also show TT is within permitted limits. Additionally, VOCs are limited to either an emission limit of 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month or demonstrate a 90 percent overall VOC emission reduction as calculated over a calendar month or the percent overall VOC emission reduction specified in subsection 60.443(b) of 40 CFR part 60 Subpart RR. TT is demonstrating compliance by meeting the 0.20 kg VOC/kg solids emission limit. Since October 2016 the controlled kg VOC/kg solid emitted are 0.01 kg VOC/kg solids, which is well within the permitted limit. The PM for this emission unit is limited to 0.1 lbs per 1000 lbs of exhaust gasses per test protocol. Based on observations made prior to the onsite inspection, no stack testing is necessary at this time for the baghouse.

At the time of the inspection, the RTO and NFE for the coating line were observed in operation. The RTO was operating at 1626°F. This is well above the permitted limit of 1375°F. Mr. Trampler stated during the inspection that the RTO setpoint is 1500°F. The RTO is equipped with an interlock system and will automatically shut off if the temperature drops below 1400°F; which will also disable all coating and mixing processes. Additionally, the RTO process fan operates between 42-54 hertz and if the fan speed drops below 40 hertz all coating and mixing processes are disabled. Temperature records for the RTO were requested and reviewed back to October 2016. Based on the records reviewed TT is adequately keeping track of temperature records for the RTO. The most recent testing of the RTO was completed on October 4, 2005, with the RTO demonstrating a 99% destruction efficiency. The most recent NFE test was completed by TT on August 31, 2017, and was observed by AQD staff AS. At the time of testing TT demonstrated that the NFE was operating in a satisfactory manner with a negative pressure at all observed natural draft openings. TT is in operation under a Preventative Maintenance Plan (PMP) with a copy of the plan requested and reviewed. Monthly and annual inspection reports for the RTO were requested and provided. It appears that TT is adequately following the PMP.

The granular portion of the solvent coating process was observed. During this step, the solid components are grinded and prepared prior to mixing with the liquid components. Emissions from grinding are controlled by the pulse jet baghouse onsite. The pressure drop reading was observed at 0 inches of water column at the time of the inspection. When this was brought up with Mr. Trampler on if this is a normal operating range, it was identified that to preserve bags for the baghouse, TT keeps the bags as clean as possible. An inspection of the baghouse is done annually to identify if replacement bags are needed. The baghouse appeared to be operating in a satisfactory manner with no significant amount of PM observed in the immediate area.

Eight storage tanks were observed containing three different types of finish adhesives, though only five tanks were in use at the time of the inspection. The mixing area for the solvent based coating line was observed during the inspection. Two mixing stations as well as several mixing and holding tanks were observed. During the inspection two 8,000-gallon storage tanks that are part of EUCOATER2591 were observed. One tank contained recovered solvents and the other tank consisted of two compartments (5,400 gallon / 2,600 gallon) containing fresh heptane and fresh toluene respectively.

The solvent based coating line was then observed in operation. One 80 horsepower boiler that is used for the solvent process and was installed in 1996 was observed. The boiler utilizes natural gas and TT stated it is used

to indirectly heat the dry coatings. TT staff stated the boiler is exempt per Rule 282(2)(b)(i), and this exemption appears to be applicable. The coating line has two condensers that were identified on the coating line. Following application, the product proceeds through six dryers.

Per SC.V.1, TT shall use Test Method 24, or upon request and approval by the AQD, shall instead utilize manufacturers formulation data sheets to determine the VOC content of all coating materials associated with this emission unit. AQD received a written request to utilize manufacturers formulation data on August 15, 2011. Reviewing the Safety Data Sheets (SDS) and records provided, it was concluded that coating materials used for this emission unit are created by TT. Reviewing the remaining records provided, TT appears to be keeping adequate track of all usages, VOC contents, reclaimed materials, VOC emission rates, and VOC emission totals.

Two stacks are listed in association with this emission unit and were observed during the inspection. Though the exact dimensions were not measured, they appeared to be consistent with Opt Out PTI No.12-05A. After further review of NSPS Subpart RR, EUCOATER2591 appears to be in compliance with all applicable requirements with this standard.

FG-Facility

TT is subject to facility wide individual and aggregate HAP limits at less than 9.0 and 22.5 tpy respectively. As of October 2017, the highest individual HAP was toluene at 2.42 tpy. The aggregate HAP 12-month rolling total, as of October 2017 was 2.58 tpy. As stated earlier, the materials utilized for the solvent-based coating line are created by TT. TT stated that the water-based coating materials contain no HAPs. The company, however, uses SDS to determine the HAP contents and is unable to access manufacturers formulation data sheets from select companies due to confidential information. After further review, the SDS were deemed acceptable. Additional information was requested from companies for select products to verify the materials contained no HAPs. It was concluded that all water-based coating materials used appear to contain no HAPs; though TT will in the future need to verify if the HAP contents change. TT appears to be keeping track of all usages, reclaimed materials, HAP contents, and HAP emission totals.

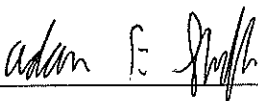
Additional Observations

- During the inspection several slitter machines were observed following the water based and solvent based coating line. All machines observed appear to be exempt per Rule 285(2)(l)(vi)(B).
- Several parts washers were observed within the NFE of the solvent based coating line. The parts washers were less than 10 square feet and appeared to be exempt per Rule 281(2)(h).
- Three 1.2 MMBTU/hr boilers used for heating purposes were observed on site that appeared to be exempt per Rule 282(2)(b)(i).
- A polypropylene extrusion process was observed during the inspection. Additionally, two 45,000 lb silos for plastic storage were observed. Equipment that is associated with the polypropylene extrusion process appears to be exempt per Rule 286(2)(a). Additionally, one grinder that vents internally was observed that regrinds scrap plastic parts from the polypropylene process. The grinder appears to be exempt per Rule 285(2)(l)(vi)(B).
- One 1,500-gallon liquid nitrogen tank was observed on site that appears to be exempt per Rule 284(2)(j).

Conclusion

A final discussion was completed with AQD staff AS and Mr. Tramper. Based on the review of the records provided and the facility walk through, TT appears to be in compliance with Opt Out PTI No. 12-05A and NSPS Subpart RR.

NAME



DATE

02/20/2018

SUPERVISOR

