

P0073
Monroe
Monroe

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

P007344846

FACILITY: VenTower Industries LLC		SRN / ID: P0073
LOCATION: 111 Borchert Park Drive, MONROE		DISTRICT: Jackson
CITY: MONROE		COUNTY: MONROE
CONTACT: Joe Turner, Coatings Manager		ACTIVITY DATE: 06/21/2018
STAFF: Diane Kavanaugh-Vetort	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Conducted complete scheduled compliance inspection, unannounced. Opt-Out Source for VOC and HAPs.		
RESOLVED COMPLAINTS:		

FACILITY: VenTower Industries, LLC, www.ventower.com (734) 682-4000 Ext. 107 or (734) 682-4012.

CURRENT CONTACTS:

Joe Turner, Coatings Manager, jturner@ventower.com (325) 214-1452
 Sylena McGowan, Project Manager, smcgowan@ventower.com (734) 682-4049
 Gregory Adanin, President and CEO, Ventower, gadanin@ventower.com (734) 682-4005

Contact information for VenTower's consultant: Stephanie A. Jarrett, P.E., Senior Environmental Engineer, 248.324.2146, Fishbeck, Thompson, Carr & Huber, Inc., Engineers, Scientists, Architects, Constructors.

On June 21, 2018 I conducted a complete, scheduled, compliance inspection, unannounced at the VenTower Industries location at 111 Bochert Park Drive, Monroe. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution control regulations, in particular Part 55, Air Pollution Control of the Natural Resources and Environmental Protection Act, 1994 Public Act 451, the Michigan Air Pollution Control administrative rules and the conditions of the facility's Opt Out Air Use Permit to Install No. 52-10A.

VenTower Industries is a manufacturer of the tower portion of utility-scale, wind turbine towers. They fabricate steel sheets into sections that compose the circular hollow tower structure. Steel sheets are formed into individual sections which are transported to the customer's location and assembled onsite into the Tower. Steel sheets move through metal shot blasting, grinding, polishing, welding into shape, improvements / accessories are added inside the sections, the sections are sand blasted and finish spray painted, air dried and then finishing accessories are added. Coatings are considered extreme performance, necessary for durability due to obvious long term exposures to outdoor conditions.

Upon my arrival to the site I observed numerous exhaust stacks on the plant roof. I observed a large quantity of big circular metal tube sections sitting outdoors on the plant property. I observed the large roll doors on the coating booth end of the building were completely open. I did not observe any visible emissions or notice any odors in the area around the building or while in the parking lot.

I entered the reception area, introduced myself and provided identification to the receptionist and explained the purpose of the visit. I met with the HR Manager briefly while waiting for contact Joe Turner, Coatings Manager. During the pre-inspection interview we discussed the details of the inspection and reviewed VenTower's PTI No. 52-10A requirements and current operation status.

Joe provided the following basic information: VenTower is operating Monday through Friday, 6:00 AM to 4:45 PM with occasional weekend hours. Their current, primary customer is General Electric.

VenTower has 51 employees. In January 2013 the company started by manufacturing prototypes of the Wind Towers and they progressed into full time production. VenTower is only fabricating and painting the Tower portions; they do not build the blades. The previous AQD inspection was conducted February 27, 2014 and resulted in a Violation Notice issued May 1, 2014 for permit limit

exceedances. This was resolved through Permit Revision.

Steel sheets are received and formed into the Tower sections. The sections are final coated with an extreme performance, two part coating (referred to as A and B). Their primary coating supplier is International Paint Inc. During the inspection I observed the Company's recordkeeping log book consisting of manually recorded sheets listing date, specific job, coatings used, and quantity.

PERMIT

VenTower's current PTI No. 52-10A contains two paint booths EU-PB01 and EU-PB02 and the FG-PBs. It also contains FGFACILITY limiting facility wide hazardous air pollutant (HAP) emission limits to remain below major source thresholds.

PTI 52-10A Condition II. 1-3, contains their instantaneous VOC content limits by coating type, and requires each Primer to not exceed 3.5 lb/gal (minus water) as applied. It requires each Basecoat to not exceed 3.0 lb/gal, and each Topcoat to not exceed 3.5 lb/gal. Current Air Quality Data Sheets were requested and received from Joe by email on 6/28/18 for the top three coatings, these indicate coatings are Compliant as follows:

International Intergard 990 (Topcoat) = 3.5 lb/gal

International Intergard 345 (Basecoat) = 2.67 lb/gal

Hempadur 17630 (Primer) = 2.47 lb/gal

The PTI Condition I. 1-4, emission limits are:

VOC 57.9 tons per year, 12 month rolling time period: Records indicate FG-PBs for period ending May 2018 = 12.16 tpy = COMPLIANT

VOC 46.0 tons per year, 12 month r0olling time period: Records indicate Each EU portion of FG-PBs for period ending May 2018 = 6.01 tpy (PB1) and 6.15 tpy (PB2) = COMPLIANT

Mixed xylenes 358.3 lbs/24 hr, calendar day: Records show FG-PBs daily for 5 month period in 2018 are COMPLIANT

n-butanol 1,254.0 lbs/24 hr, calendar day: Records show FG-PBs daily for 5 month period in 2018 are COMPLIANT

During the inspection I was told that VenTower uses clean-up solvent Methyl Ethyl Ketone (MEK) for the coating lines and paint guns only. This is the same information as I received during the 2014 inspection. Joe confirmed they do not reduce or thin the coatings, they are used as received.

PTI 52-10A Testing Condition V. 1. requires determining VOC content using federal Reference Test Method 24, or as approved by AQD District Supervisor, use of manufacturer's formulation data. VenTower is now allowed to use Manufacturer's formulation data.

PTI 52-10A Recordkeeping Condition VI. 1-4 for VOC usage and calculation of emissions. I requested this information for the 12 month period ending May 2018. See Records section below.

PTI 52-10A Reporting Condition VII. 1. requires submittal of semi-annual VOC content information in lbs/gallon. The initial submittal period has passed and submittal is now required upon AQD inspection or request. COMPLIANT

RECORDS

I requested a copy of the VenTower coating usage and VOC (FG-PBs) and HAP (under FGFACILITY) emission calculation records for the previous 12 months ending May 2018. I also requested the Coating Content information for all coatings used at this time. I discussed with Joe, that Method 24 is the required method and that this could be obtained from Coating Suppliers. It was agreed Joe would send records to me electronically by Wednesday, June 27. VenTower confirmed they are still using consulting services of Stephanie Jarrett, FTC&H. AQD notes:

1. The VOC content as applied (with water/exempt) is multiplied by the coating usage as-applied (with water/exempt).
2. VenTower confirmed (see paragraph below) they are spraying metal parts in addition to the towers
 - a. They are considering the new coatings compliant with Rule 702(a) and are complying with the VOC content limits in the permit for primer, base coat, and top coat.
 - b. The parts are sprayed in the FGPs.

AQD review of coating record keeping found a significant operations change at the facility. Since the prior inspection VenTower is using several other coatings and thinners in the FGPs for other miscellaneous metal parts painting, i.e. small tanks/ parts. Coatings listed are categories of coating other than the primer/basecoat/topcoat used on Tower Sections. They appear to be used in relatively small quantities.

VenTower was asked to demonstrate this change of coatings meets exemption under meaningful change. SJ submitted a meaningful change analysis on behalf of VenTower on July 13, 2018. The spreadsheet provides coating details, potential usage rates, and ITSL/IRSL/Hazard potential analysis. All coatings appear to meet the exemptions of Rule 285 (2)(B)(i)(a) and/or Rule 285 (2)(C)(iii). VenTower is tracking usage, VOC contents and emissions under PTI 52-10A requirements of emission limits and material content limits for FGPs.

FACILITY INSPECTION

Joe accompanied me during the physical walk through of the plant. The manufacturing building is essentially one long, warehouse structure with very high ceilings and overhead bridge cranes and in-floor tracks and various railcar like devices to hold, rotate and transport the large metal sections from start to end through the various production stations. Initially vacuum cups on crane arms pick up and move large flat metal sheets.

The first process equipment with air emissions is at the start of the line where steel sheets are fed through the Wheelabrator steel shot blast with pulse jet cartridge filter baghouse and precleaner. I observed two new CAMFIL (F) collectors, one slightly larger than the other. The larger collector was only installed 3 days ago per Joe. The filter collectors replaced the older prior collector. They are located just outside the building near where the wheelabrator operates. Materials are collected in drums. I observed the type of filter canisters are cylindrical. VenTower had numerous filters in supply in boxes throughout the facility. The baghouses appeared to be installed and operating properly and housekeeping in the general area was good. Joe verified that they monitor cartridge filter condition via differential pressure and as production has increased they clean/change filters more often. Spent Cartridge filters are returned to their cardboard boxes and are disposed of in the trash (Steven's is their hauler). Photos of the Collector's CAMFIL Name Plates are attached to this report. I discussed the Rule 201 exemptions from the requirement to obtain a permit with Joe briefly and later with Greg and Sylena at the closing conference (see below). This process equipment and collector appear to qualify for PTI exemption pursuant to Rule 285 (2)(l)(vi)(C).

Joe and I continued walking up the line and I observed a "plasma cutting table" that had been operating earlier but was not currently operating. It is a very long table where steel sheet is cut with down draft exhaust. I observed the far end is ducted to the smaller CAMFIL collector. The other end of the table was previously ducted to another older baghouse unit located outside the building near this end of the table. The exhaust at this end of Table has since been disconnected. I observed the duct blanked off and the

opening to the table was also blanked off. Joe indicated they are working on what is the best option for collection, running both units or only one. This was discussed in more detail with Greg and Sylena at the closing conference (see below). This process equipment and collector(s) appear to qualify for PTI exemption pursuant to Rule 285 (2)(l).

During the inspection I observed various in-plant processes were operational including individual welding stations, touch up polishing, and installation of internal attachments for ladders, electrical connections, safety holds, etc... All steel scrap generated is recycled.

At the very end of the fabrication line is a separate large totally enclosed sand/fine grit blast booth located next to the spray coating booths. Blasting is done pre-painting and it has it's own air pollution control collector, a large CAMFIL Unit. I observed a Tower Section inside this booth and the booth was operating during the inspection. I observed through the door an operator spray applying Zinc metalizing coating along the Tower edges.

Farther down the booth an operator exited another door near the shot blast material Collector/recycler where shot blasting was occurring. The shot blast material is collected and reused and then disposed of properly. Operators manually blast within the booth. This process equipment and collector were part of the permit application and appear to qualify for PTI exemption pursuant to Rule 285 (2)(l)(vi)(C).

Next to this booth are the two separate large paint booths EUPB01 and EUPB02 (FG-PBs) which are also Ovens @187 degree F. They were not operating during the inspection. I observed a recently painted Tower Section outside. Both Booths had the far wall/roll door completely open to the outside this is how they move the finished Towers out. Joe and I walked into both booths and I observed the portable spray pot and spray guns. The booth filters were all installed and appeared to be in good condition. Air intake is in the ceiling and exhausts out side wall through particulate filters. Two operators spray at a time in each booth. Following the FG-PBs there is a final inspection room and Tower Sections are then moved outside and are stored together.

Joe and I then entered the separate room containing the paint kitchen. Intergard 345 is the Epoxy two part coating that is automatically transferred by PC Pumps. The Marco auto pump combines them into the appropriate ratio. Coating A-part is the Base and B-part is the cure. Other coating materials are stored in drums and gallon containers in the room. Topcoat is hand poured into the portable coating containers hooked to spray guns. I observed 55 gal containers of MEK used as clean-up solvent only and per Joe it is recovered & stored for offsite reclaim. Heritage Crystal Clean is their Waste hauler for waste oils, liquid paint / solvent wastes. Spent paint filters are disposed of in the trash, Steven's is their hauler.

During the 2014 inspection I observed an emergency generator on-site and this is still there. It is a Cummins Model: GGHH-6545612, Serial Number: B110189907, 100 kW (341,442 BTU; 134 horsepower) and is consider new, installed after June 2006 and is therefore subject to 40 CFR 60, Subpart JJJJ, New Source Performance Standard for Spark ignition ICE. It is fueled by natural gas or propane. Following the inspection VenTower provided me with the Engine Family number and photo of EPA Certification tag on engine (Attached to this Report). The engine appears to be an EPA Certified Engine. It is referenced on US EPA website for certification in the excel table under "large Nonroad Spark-Ignition (NRSI) Engines".

CLOSING CONFERENCE

At the closing conference with Joe, Selena, and Greg, the Emergency Generator was discussed again. I advised VenTower review the federal standard for compliance requirements. Following the inspection I emailed Joe the link to the federal regulation, National Emission Standards for Hazardous Air Pollutants for stationary reciprocating internal combustion engines (NESHAP, RICE) that applies to all emergency and non-emergency ICE. The newer standards are referred to as Maximum Available Control Technology or Area RICE MACT. VenTower has a HAP Opt Out permit making them an Area Source. I requested VenTower determine applicability and compliance status and notify me.

We discussed the required recordkeeping and demonstration of compliance with the Emission Limits

and Material Limits. VenTower was confident that production has been down and they are easily in compliance with their limits. We agreed Joe will consult with Stephanie Jarrett, FTCH and will send me the electronic spreadsheet(s) for the 12 month rolling time period ending May 2018 by June 27, 2018. We discussed the VOC content in lb/gallon are also required for all coatings being used or used during past year. It was determined that a listing will be acceptable with support of updated/current Manufacturer data.

DKV gave Joe a copy of Permit to Install Exemption Handbook (Jan 2017). We discussed various exemptions applicable to VenTower. Greg explained they are still trying to work out the best collection system for the plasma table and will either use one or both collectors. I explained their requirement is to meet the Rule 285 exemption for exhausting outdoors; and not to adversely impact their employees or outdoor air. Either option is acceptable.

COMPLIANCE SUMMARY

Joe will submit the required records and compliance demonstration with their PTI by June 27. On June 25, Joe submitted information related to the Emergency Generator. They are waiting for Manufacture data /operating manual / design manual on the CAMFIL collectors and will send that to me as soon as receive it. Received.

It appears that VenTower Industries is in substantial compliance with the conditions of their PTI 54-10A and the applicable state and federal regulations evaluated.

All records referenced are attached to report to file.

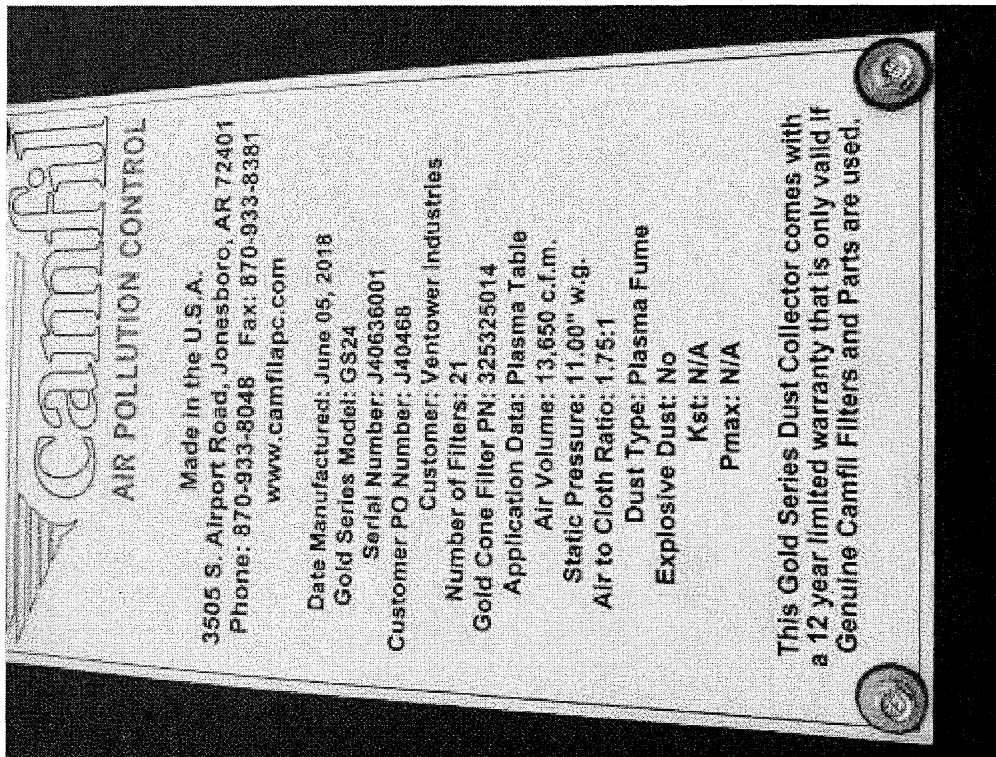


Image 1(CAMFIL Plasma fume) : Baghouse collector on Plasma cutting table

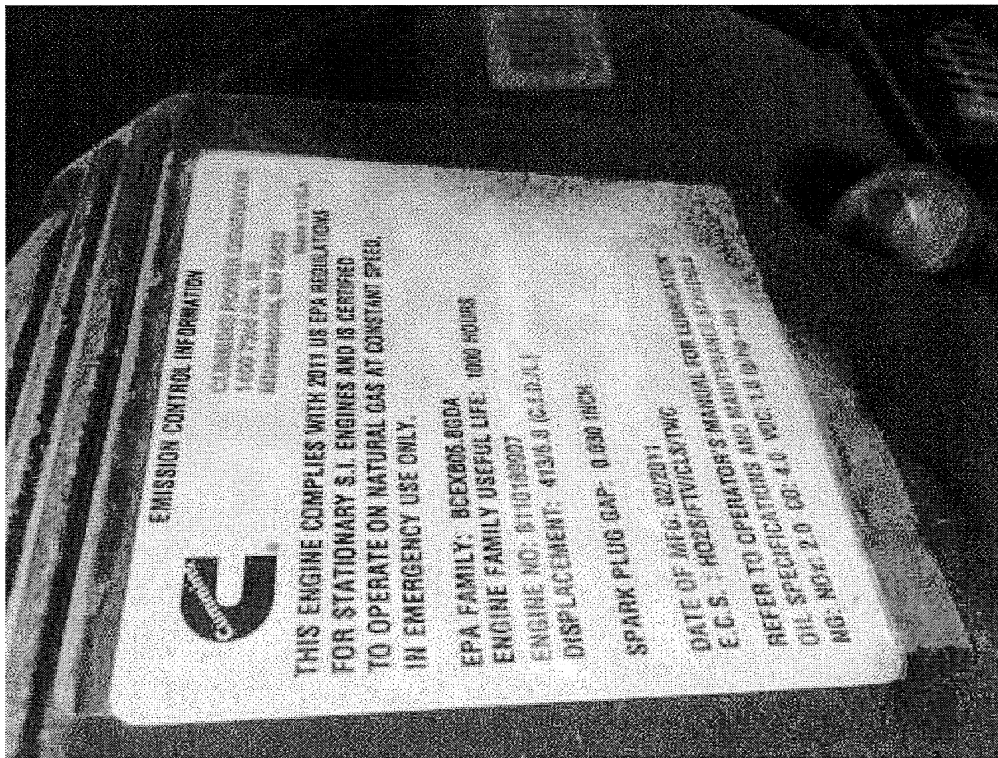
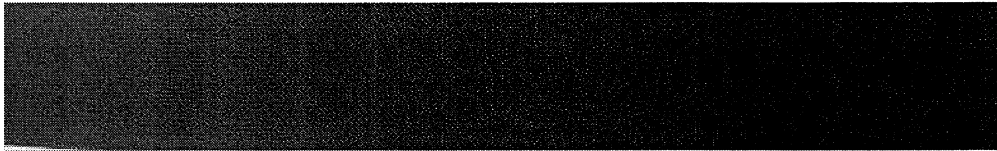


Image 3(Nat Gas Emer Gen) : VenTower emergency generator Tag

NAME *OKay Webb*

DATE *7/16/18*

SUPERVISOR *[Signature]*