

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

P072764186

FACILITY: Tribar Technologies Inc (Plant 5)		SRN / ID: P0727
LOCATION: 48668 Alpha Drive, WIXOM		DISTRICT: Warren
CITY: WIXOM		COUNTY: OAKLAND
CONTACT: Ryan O'Keefe , Environmental		ACTIVITY DATE: 07/21/2022
STAFF: Mark Dziadosz	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: FY 2022 Inspection		
RESOLVED COMPLAINTS:		

On Thursday, July 21, 2022, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz, conducted an announced scheduled inspection of Tribar Technologies, Inc. Plant 5 (P0727), located at 48668 Alpha Drive Wixom, MI. The purpose of this inspection was to determine the facility's compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart N National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks and Permits to Install (PTI) No. 121-16.

I arrived at Tribar Technologies, Inc. Plant 5 at 11:00 AM and met with Ryan O'Keefe, Environmental Manager. Prior to the inspection, records were requested on 7/20/2022. Upon arrival, Ryan and I discussed the electronic records review and discussed operations. I was then taken on a tour of the facility.

Tribar Technologies Inc. Plant 5 Tribar Manufacturing is a producer of metal plated plastic parts for the automotive industry. Plant 5 has approximately 50 employees and operates 24 hours a day, Monday-Friday. This location has several different plating tanks including: semi bright nickel, bright nickel, micro porous nickel, high sulfur, spray cleaner, PC ABS (Polycarbonate/Acrylonitrile Butadiene Styrene) etch, ABS etch, etch drag out, electroless nickel, tri-chrome, decorative chrome, chrome drag out, chrome strip and nitric strip. There is also a pre-plating process consisting of neutralizer, activator predip, activator, accelerator, copper strike, and acid copper tanks. EUSYSTEM1 (semi bright nickel, bright nickel, micro porous nickel, high sulfur) is controlled by a packed bed wet scrubber and mist eliminator. EUSYSTEM2 (spray cleaner, PC ABS etch, ABS etch, etch drag out) is controlled by a two-stage composite mesh pad and a two-stage in-line mist eliminator. EUSYSTEM3 (neutralizer, activator pre-dip, activator, accelerator, copper strike, and acid copper tanks) is controlled by a packed wet bed scrubber. EUSYSTEM4 (electroless nickel) is controlled by a packed wet bed scrubber. EUCHROME5 (tri-chrome, decorative chrome, chrome drag out) is controlled by composite mesh pad (CMP) and fume

suppressant. EUSYSTEM6 (chrome strip and nitric strip) is controlled by a packed bed wet scrubber. There is also a lab that tests the surface tension (dynes/cm) of the tanks making use of the fume suppressant. The rest of the space in the building is used for storage and offices.

Compliance

On September 9, 2021, the facility received a Violation Notice (VN) for failure to maintain a surface tension of 35 dynes/cm for Tanks 5 and 6 in EUSYSTEM2 as well as not maintaining pressure drops of the control system within a set range. These issues were ongoing during the inspection on 7/21/2022 and another VN was issued on 7/27/2022. Tribar Technologies Inc. Plant 5 provided documents onsite and requested records were to be e-mailed by the facility after the inspection. As of 8/16/22, no documents have been received. Any provided documents can be found in: S:\Air Quality Division\Staff\Mark Dziadosz\P0727 Tribar Plant 5 FY22 Inspection or the facility plant file.

PTI No. 121-16

EUSYSTEM2

Acid etch process (four tanks) and chrome recovery system. The tanks are Tank 3 (spray cleaner), Tank 5 (PC ABS etch), Tank 6 (ABS etch) and tank 7 (etch dragout). The chrome recovery process consists of a porous pot tank that works as a closed loop with Tanks 5 and 6 and an evaporator that tank 7 overflows to.

SC I.1 A total chromium emission limit of 1.50E-4 lbs/hr. Confirmed via stack test on 11/09/2017. The total chromium emission rate for EUSYSTEM2 was less than 2.42E-05 lbs/hr.

SC III.1 The permittee shall retain on-site an operation and maintenance plan for each scrubber, mesh pad, and mist eliminator. A copy of the plan is in the AQD file. A copy was not able to be provided during the inspection.

SC III.2 The permittee shall not operate Tanks 5 and 6 unless the chemical fume suppressant is applied in quantities to ensure the surface tension does not exceed 35 dynes/cm when measured by a tensiometer. Tribar monitors the dynes of all their baths multiple times per operating period (40 hours). During these 40 hours sometimes the surface tension reading will exceed the permitted 35 dynes/cm, when this occurs the system adds more surfactant to the bath to get the value back below the 35 dynes/cm limit. Following the VN from 7/26/2021, the facility lowered the set parameter to 33 dynes/cm. The permittee monitors the dynes approximately every 4 operating hours, which is required by the permit when an exceedance occurs.

While onsite I reviewed records for Tanks 5 and 6. Both tanks had exceedances during the period reviewed and I requested the records for tanks 5 and 6 for the previous 6 months to be sent after the inspection. As of 8/15/2022, the records have not yet been received. A violation notice was issued on 7/27/2022.

SC IV.1 The permittee shall not operate any process tank in EUSYSTEM2 unless the associated control equipment is installed and properly maintained and operated. The process tanks are equipped with scrubbers and maintain a pressure drop determined during compliance testing.

SC IV.2 The packed bed scrubbers and composite mesh pads in EUSYSTEM2 must be equipped with pressure differential monitors. Each piece of control equipment in EUSYSTEM2 was equipped with a pressure differential monitor. During inspection, the pressure drop on the HEPA filter system was above the maximum range allowed (.1-2.0). Tank 5 was reading 2.8 and tank 6 was reading 2.6. A violation notice was issued on 7/27/2022.

SC V.1- Within 180 days of initial startup, verification of the total chromium emission rates from EUSYSTEM2 must be performed via testing at the owner's expense. The chromium emission rates were confirmed via stack test in 11/09/2017.

SC VI. 1 The permittee must monitor the surface tension in Tanks 5 and 6 in EUSYSTEM2 once every 40 hours. The facility satisfactorily monitors and records the surface tension of EUSYSTEM2 several times every 40 hours. The surface tension readings are done multiple times per operating period (approximately every 4 hours).

SC VI.2 The permittee shall perform inspections of the packed bed scrubber including: checking the pressure drop, if it exceeds +/- 1 in of water column from the pressure determined during compliance testing the variation and any corrective action must be documented; visually inspect the scrubber quarterly to ensure proper drainage, no chromic acid build-up, or damage to the structural integrity; and add fresh make-up water as needed. The facility provided records of maintenance and inspections for all control equipment at the facility. Records of the exhaust differential log inspections were reviewed and requested for the previous 6 months, but as of 8/16/2022 were not received.

SC VI.3 The permittee shall perform inspections of the Composite Mesh Pad system including: checking the pressure drop, if it exceeds +/- 2 in of water column from the pressure determined during compliance testing the variation and any corrective action must be documented; visually inspect the mesh pad quarterly to ensure proper drainage, no chromic acid build-up, or damage to the structural integrity; perform wash-down of the mesh pads at a minimum of once a week; and add fresh make-up water as

needed. The facility provided records of maintenance and inspections for all control equipment at the facility. Records of the exhaust differential log inspections were reviewed and requested for the previous 6 months, but as of 8/16/2022 were not received.

SC VI.4 The permittee shall maintain records of the inspections as required by SC VI.2 and VI.3. Each inspection record shall identify the device inspected, the date, approximate time of inspection, and a brief description of the working condition of the device during the inspection. The permittee shall also record any actions taken to correct the deficiencies found during the inspection. The facility provided records of maintenance and inspections for all control equipment in EUSYSTEM2. Records of the exhaust differential log inspections for the previous 6 months were requested, but as of 8/16/2022 were not received.

SC VI.5 The permittee shall keep records of the surface tension of Tanks 5 and 6 in EUSYSTEM2, the amount of chemical fume suppressant added to each tank 5 and 6 in EUSYSTEM2 and the date and time of each addition. I was able to observe the records while onsite and the previous 6 months of data was requested during the inspection, but as of 8/16/2022, none has been received.

SC VIII.1 The exhaust for EUSYSTEM2 discharges unobstructed vertically. Stack dimensions not confirmed during this inspection.

EUCHROME5

Decorative chrome process. This process consists of three tanks: Tank 45 (tri-chrome), Tank 49 (decorative chrome plating), and Tank 50 (chrome dragout).

SC I.1 A chromium emission limit of 0.006 mg per dry standard cubic foot. Confirmed via stack test on November 9, 2017, the chromium emissions of EUCHROME5 were $<1.74E-04$.

SC I.2 A chromium emission limit of $4.20E-5$ lbs/hr. Confirmed via stack test on November 9, 2017, the chromium emissions of EUCHROME5 were less than $6.02E-06$ lbs/hr.

SC III.1 The permittee shall retain on-site an operation and maintenance plan for each scrubber, mesh pad, and mist eliminator. A copy of the operation and maintenance plan is in the AQD file. Copies were not provided during the inspection. The plan appears to contain the necessary information. Including the directions for inspecting the composite mesh pad systems.

SC III.2 The permittee shall not operate EUCHROME5 unless the chemical fume suppressant is applied in quantities to ensure the surface tension

does not exceed 35 dynes/cm when measured by a tensiometer. The facility adds fume suppressant as needed to maintain the 35 dynes/cm surface tension limit. Tribar monitors the dynes of all their baths approximately every 4 hours during operation, despite the NESHAP only requiring one reading per operating period. According to Gabe (who showed me the electronic records), if the surface tension reading exceeds 30 dynes/cm, the system adds more surfactant to the bath to maintain the value below the 35 dynes/cm limit. During the time period reviewed onsite (3/23/2022-7/21/2022), there were no exceedances.

SC IV.1 The permittee shall not operate EUCHROME5 unless the Composite mesh pad is installed and properly maintained and operated. The CMP system appears to be operating and maintained properly, visual inspections and maintenance are recorded.

SC IV.2 The composite mesh pad in EUCHROME5 must be equipped with pressure differential monitors. The facility equips the EUCHROME5, and all, control technology with pressure monitors.

SC V.1- Within 180 days of initial startup, verification of the total chromium emission rates from EUCHROME5 must be performed via testing at the owner's expense. The chromium emission rates were confirmed via stack test on 11/09/2017.

SC VI. 1 The permittee must monitor the surface tension EUCHROME5 once every 40 hours. The facility satisfactorily monitors and records the surface tension of EUCHROME5 at least once every 40 hours (approximately every 4 hours of operating time).

SC VI.2 The permittee shall perform inspections of the Composite Mesh Pad system including: checking the pressure drop, if it exceeds +/- 2 in of water column from the pressure determined during compliance testing the variation and any corrective action must be documented; visually inspect the mesh pad quarterly to ensure proper drainage, no chromic acid build-up, or damage to the structural integrity; perform wash-down of the mesh pads at a minimum of once a week; and add fresh make-up water as needed. During inspection, the facility provided records of maintenance and inspections for tank 49, but not for tank 45 or 50. There were no inspections done on tank 49 between 2/13/21 and 6/20/22. Inspections are required quarterly. A violation notice will be sent for this once the additional requested records are received and reviewed. Records of the exhaust differential log inspections for the previous 6 months were requested, but as of 8/16/2022 were not received.

SC VI.3 The permittee ensures compliance with the emission limit via surfactant and scrubber/CMP systems. The operation and maintenance

plans were requested but not received. A copy of the plan is in the AQD file.

SC VI.4 The permittee shall maintain records of the inspections as required by 40 CFR 63.342(f). Each inspection record shall identify the device inspected, the date, approximate time of inspection, and a brief description of the working condition of the device during the inspection. The permittee shall also record any actions taken to correct the deficiencies found during the inspection. The facility provided records of maintenance and inspections for tank 49 but not 45 and 50. Records were requested for all control equipment at the facility. There were no inspections done between 2/13/21 and 6/20/22 on tank 49. Records of the exhaust differential log inspections for the previous 6 months were requested, but as of 8/16/2022 were not received. The permittee keeps records of the date, working condition, and any deficiencies and action taken to correct the deficiencies for the equipment in EUCHROME5.

SC VI.5 The permittee monitors and keeps records of operation and maintenance information to show compliance with the chrome emission limit, as specified in 40 CFR 63 Subparts A and C.

SC VI.6 The permittee shall keep records of surface tension readings for EUCHROME5, and records of additions of fume suppressant. The permittee provided records for these requirements.

SC VII.1 Permittee has submitted notification for performance tests and the post-performance test notification of compliance. The ongoing compliance report was not observed during the inspection and was requested after.

SC VIII.1 The exhaust for EUCHROME5 discharges unobstructed vertically. Stack dimensions not confirmed during this inspection.

SC IX.1 The permittee does not appear to have complied with the provisions of the NESHAP as specified in 40 CFR 63 Subparts A and N by complying with the emissions, operating, design, recordkeeping and reporting requirements of EUCHROME5. Once requested records are received, the compliance status could change.

FGSYSTEMS

Various metal treating tanks, including plating and stripping tanks, that do not contain chromium.

Emission Units: EUSYSTEM1, EUSYSTEM3, EUSYSTEM4, EUSYSTEM6.

SC I.1 A nickel emission limit of 0.0029 lbs/hr for EUSYSTEM1. The AQD has not yet requested testing for the nickel emission limit.

SC I.2 A nickel emission limit of 1.96×10^{-5} lbs/hr for EUSYSTEM4. The AQD has not yet requested testing for the nickel emission limit.

SC III.1 The permittee shall retain on-site an operation and maintenance plan for each scrubber, mesh pad, and mist eliminator. A copy of the operation and maintenance plan for FGSYSTEMS was not provided during inspection and a copy is not in our file. A request for the plan was submitted during the inspection.

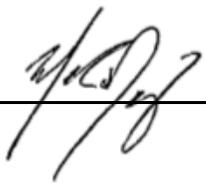
SC IV.1 The permittee shall not operate any process tank in FGSYSTEMS unless the associated scrubber system and mist eliminator is installed, maintained, and operated in a satisfactory manner. Satisfactory operation shall include, but is not limited to, maintaining the pressure drop across each scrubber system per manufacturer specifications. The scrubber system and mist eliminator for FGSYSTEMS was installed and operating. The facility keeps pressure drop reading records for FGSYSTEMS. Records were requested for the pressure drop readings for the past 6 months but as of 8/16/2022, have not been received. At the time of inspection, the pressure drops were within the appropriate range.

SC IV.2 The permittee shall equip and maintain each scrubber system in FGSYSTEMS with a pressure differential monitoring device. The permittee has each scrubber system in FGSYSTEMS equipped with a pressure differential monitor.

SC VI.1-2 The permittee shall monitor and record the pressure drop across each scrubber system in FGSYSTEMS on a daily basis. The permittee monitors and records the pressure drop for each scrubber system daily. During inspection, records of inspection for the past 2 weeks were reviewed. Records were requested for the previous 6 months inspections, as of 8/16/2022, none have been received. According to Ryan, there was a gap in the inspection records from 10/25/21-12/12/21 when a worker was out due to injury.

SC VIII. 1-4 The exhaust stacks of FGSYSTEMS discharge unobstructed vertically. Stack dimensions not verified during this inspection.

Based on the information gathered during the inspection, Tribar Technologies Inc. Plant 5 appears to be out of compliance with the Federal Clean Air Act Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, and PTI No. 121-16. A violation notice was sent on 7/27/2022. Further compliance determination will be based upon the records required from the company. If the company has not submitted such records by 8/30/22, additional violation notice will be sent in this regard.

NAME 

DATE August 25, 2022 SUPERVISOR Joyce 