

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

N261073230

FACILITY: Toefco Engineered Coating Systems		SRN / ID: N2610
LOCATION: 1220 N 14th St, NILES		DISTRICT: Kalamazoo
CITY: NILES		COUNTY: BERRIEN
CONTACT: Artie McElwee III, President and CEO		ACTIVITY DATE: 08/22/2024
STAFF: Chance Collins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection for FCE		
RESOLVED COMPLAINTS:		

On August 22, 2024 AQD Staff traveled to Berrien County to perform an inspection of Toefco Engineered Coatings (TEC) (SRN: N2610). The purpose of the inspection was to determine the facility's compliance with MI-ROP-N2610-2023 and applicable state and federal air pollution control regulations 40 CFR Part 63 Subpart M (NESHAP for Surface Coating of Miscellaneous Metal Parts and Products) and any other state and/or federal air regulations.

AQD staff arrived at the main TEC facility at approximately 10:40 a.m. to sunny conditions with a temperature of 70°F, and a N wind of 0 mph. There were no noticeable odors upon arrival. AQD staff met with Artie McElwee (President and CEO) who answered all questions and escorted staff around the site.

The facility is a large job shop coating facility that's able to do business with just about any industry that requires liquid, powder, or Teflon coatings. The main industries that they serve are still Automotive, Agriculture, and Over the Road (OTR) Trucks that require High Performance Coatings. The High-Performance Coatings are used for high temperature and corrosive environment applications. The majority of the coatings currently still used are wet, both water and solvent-based and they haven't changed any. The facility still does powder coating (Teflon Powder) as well. The High-Performance products that they may coat include mufflers, air grills, trim pieces, exhaust pipes, air and water handling components, and engine coatings to name a few. The facility also coats waffle irons for the motel/hotel industries which is a large part of their business as well.

The following discusses the results of the on-site inspection and the review of records:

Building 1 houses 6 spray booths (1-6) and 13 drying ovens (1-7, 10-13, 19 and 20). All the individual spray booths at the facility were installed and are being operated under the AQD Rule 287(c) permit exemption. Part of Building 1 also still includes a couple of storage areas with one storing the powder coating products and another for the liquid coatings.

Building 2 houses the three coating lines that are referred to as the Chain on Edge Lines. TEC refers to them specifically as the Green, Blue, and Yellow Lines. They each have their own spray booth and associated drying oven. Parts to be painted are placed on the hooks of the chain that ultimately acts as a conveyor for the process. The Yellow and Blue Lines are used for liquid coatings and the Green Line is strictly used for powder coatings.

Building 3 houses the North Line and its associated oven which is equipped to do either powder or liquid. Building 3 also houses the Large Bayco Burn-Off oven and it

is equipped with a circular chart recorder. The Large Bayco was in use and staff noted that the box temperature was 600 degrees F and the afterburner was operating at 1500 degrees F.

The RTO is used to control the emissions from the North Line and the Superline. The RTO was operating at 1512 degrees F and is equipped with an electronic temperature recorder. It also is equipped with a pre-treatment filter that was installed on it to prevent build-up of any materials that would affect the various media in the RTO. TEC has maintenance done on it semi-annually by Durr Environmental.

Building 4 is used strictly for liquid coating and consists of a pretreatment washing system, a drying oven, two spray booths, two flash off ovens, and a curing oven. The Superline's emissions are controlled by the RTO (when not in allowed by-pass mode). Building 4 also houses 4 other small spray booths and 4 curing ovens. Oven 23 is the large Gerref Oven which was not in use. It is equipped with a chart recorder, the triboguard PM monitor, as well as the SpecView computerized operating system. They also have a self-contained rolling Powder Booth adjacent to the Superline.

#### Source-Wide Conditions

Pollutant	Limit	Time-Period/Operating Scenario	Equipment
VOC	30.0 tpy  Actual: 5.0	12-month rolling time period as determined at the end of each calendar month	Source-Wide

Facility appears to be in compliance.

All reporting is reviewed upon receipt and appeared to be in compliance.

#### EU-METALCOAT

Pollutant	Limit	Time-Period/Operating Scenario	Equipment
VOC	18.0 tpy  Actual:	12-month rolling time period as determined at the end of each calendar month	EU-METALCOAT

	1.69 tpy		
Xylene (CAS No. 1330-20-7)	62.9 lb/day  Actual: 26.8 lb/day	Calendar Day	EU-METALCOAT
Ethylbenzene (CAS No. 100-41-4)	2.8 tpy  Actual: 0.5 tpy	12-month rolling time period as determined at the end of each calendar month	EU-METALCOAT

Facility appears to be in compliance.

**Material Limits:**

Material	Limit	Time Period/Operating Scenario	Equipment
Coatings	3.5 lb VOC/gal (minus water) as applied during RTO by-pass mode only	Instantaneous	EU-METALCOAT

Facility appears to be in compliance.

**Process/Operational Restrictions:**

1. The permittee shall recover and reclaim, recycle, or dispose of all coatings, reducers, thinners, additives, catalysts, and purge and cleanup solvents, etc. (materials), in accordance with all applicable regulations.<sup>2</sup> (R 336.1702(a))
2. The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1702(a))

**3. The permittee shall dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air.<sup>2</sup> (R 336.1224, R 336.1370)**

**4. The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents, and thinners in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary.<sup>2</sup> (R 336.1225, R 336.1702(a))**

**5. The permittee shall not operate the RTO unless a malfunction abatement plan (MAP) as described in Rule 911(2) is implemented and maintained. The MAP shall, at a minimum, specify the following:**

**a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.**

**b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.**

**c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.**

**d. A description of the procedures to capture, handle, and disposes of all materials to minimize the generation of fugitive emissions per SC III.1, III.2, and III.4.**

**If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days if new equipment is installed or upon request from the AQD District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits.<sup>2</sup> (R 336.1702(a), R 336.1910, R 336.1911)**

**Facility appears to be in compliance.**

#### **DESIGN/EQUIPMENT PARAMETER(S)**

**1. The permittee shall not operate each paint booth portion of EU-METALCOAT unless the respective exhaust filters are installed and operating in a satisfactory manner.<sup>2</sup> (R 336.1224, R 336.1301, R 336.1910)**

**2. The permittee shall equip and maintain each paint booth portion of EU-METALCOAT with HVLP spray guns or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee shall keep test caps available for pressure testing.<sup>2</sup> (R 336.1702(a))**

3. The permittee shall not operate EU-METALCOAT unless the RTO is installed, maintained, and operated in a satisfactory manner, except during use of by-pass mode. Satisfactory operation of the RTO includes a minimum VOC capture efficiency of 60 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight) or a maximum VOC emission rate of 0.26 pph, and maintaining a minimum combustion chamber temperature of 1450°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, the permittee may use an average temperature of 1450°F based upon a three-hour rolling average.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.1910)

4. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature on a continuous basis, during operation of the RTO.<sup>2</sup> (R 336.1702(a))

Facility appears to be in compliance.

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall determine the VOC content, water content, and density of any material as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance.<sup>2</sup> (R 336.1225, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

2. Verification of the destruction efficiency of the RTO by testing at the owner's expense, in accordance with Department requirements, may be required. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of the destruction efficiency includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)

3. Verification of the capture efficiency of EU-METALCOAT by testing at the owner's expense, in accordance with Department requirements, may be required. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of the capture efficiency includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test.<sup>2</sup> (R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)

4. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. (R 336.1213(3)).

Facility appears to be in compliance.

## **VI. MONITORING/RECORDKEEPING**

**Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))**

**1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.2 (R 336.1225, R 336.1702)**

**2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.2 (R 336.1225, R 336.1702)**

**3. The permittee shall keep the following information on a monthly basis for the EU-METALCOAT:**

**a. Operation mode: Normal operation or use of by-pass mode with the reason for not using the RTO (e.g., use of corrosive material, such as chloride and fluoride containing compounds, and verified with Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor).**

**b. Gallons (with water) of each material used and reclaimed.**

**c. VOC content (minus water and with water) of each material as applied.**

**d. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.**

**e. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.**

**The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.2 (R 336.1702)**

**4. The permittee shall keep the following information on a daily basis for the EU-METALCOAT:**

**a. Gallons (with water) of each Xylene (CAS No. 1330-20-7) containing material used.**

**b. Where applicable, the gallons (with water) of each Xylene (CAS No. 1330-20-7) containing material reclaimed.**

**c. The Xylene (CAS No. 1330-20-7) content in pounds per gallon of each material used.**

**d. Xylene (CAS No. 1330-20-7) mass emission calculations determining the daily emission rate in pounds per day.**

**The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.1 (R 336.1225(1))**

**5. The permittee shall keep the following information on a monthly basis for the EU-METALCOAT:**

- a. Gallons (with water) of each Ethylbenzene (CAS No. 100-41-4) containing material used.
- b. Where applicable, the gallons (with water) of each Ethylbenzene (CAS No. 100-41-4) containing material reclaimed.
- c. The Ethylbenzene (CAS No. 100-41-4) content in pounds per gallon of each material used.
- d. Ethylbenzene (CAS No. 100-41-4) mass emission calculations determining the monthly emission rate in tons per calendar month.
- e. Ethylbenzene (CAS No. 100-41-4) mass emission calculations determining the monthly emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records using mass balance, or an alternative format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.1 (R 336.1225(3))

6. The permittee shall keep, in a satisfactory manner, operating temperature records for the RTO as required by SC IV.3, during operation of the RTO. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. If the measured operating temperature of the RTO falls below 1450°F during operation of the RTO, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three-hour period which includes one or more temperature readings below 1450°F. The permittee shall keep all records and calculations on file and make them available to the Department upon request.2 (R 336.1225, R 336.1702(a))

Facility appears to be in compliance.

All reporting reviewed when received and was received in a timely manner. Facility appears to be in compliance.

**VIII. STACK/VENT RESTRICTION(S)**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

**Stack & Vent ID Maximum Exhaust Diameter / Dimensions (inches) Minimum Height Above Ground (feet) Underlying Applicable Requirements**

1. SV-PSB1\* 242 28.92 R 336.1225, 40 CFR 52.21(c) and (d)
2. SV-PSB2\* 242 28.92 R 336.1225, 40 CFR 52.21(c) and (d)
3. SV-CO\* (Curing Oven) 112 25.52 R 336.1225, 40 CFR 52.21(c) and (d)

**4. SV-RTO 422 30.02 R 336.1225, 40 CFR 52.21(c) and (d)****\*By-pass Mode Only**

Facility appears to be in compliance.

**IX. OTHER REQUIREMENT(S)**

1. The permittee shall notify the Department if a change in land use occurs for property classified as industrial or as a public roadway, where this classification was relied upon to demonstrate compliance with Rule 225(1). The notification shall be submitted to the AQD District Supervisor, within 30 days of the actual land use change. Within 60 days of the land use change, the permittee shall submit to the AQD District Supervisor a plan for complying with the requirements of Rule 225(1). The plan shall require compliance with Rule 225(1) no later than one year after the due date of the plan submittal.1 (R 336.1225(4))

2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart Mmmm for Surface Coating of Miscellaneous Metal Parts and Products, as they apply to EU-METALCOAT.2 (40 CFR Part 63, Subpart Mmmm)

**FG-CUREOVENS:**

**DESCRIPTION:** Twenty-two (22) cure ovens.

**Emission Units:** EU-OVEN1-1, EU-OVEN2, EU-OVEN3-1, EU-OVEN4, EU-OVEN5, EU-OVEN6, EU-OVEN7, EU-OVEN9-Yellow, EU-OVEN10, EU-OVEN11, EU-OVEN12, EU-OVEN13, EU-OVEN14-Green, EU-OVEN15-Blue, EU-OVEN18, EU-OVEN19, EU-OVEN20, EU-OVEN21, EU-OVEN23-Gerref, EU-OVEN24, EU-OVEN25, EU-OVEN26, and all future cure ovens installed at the facility.

**POLLUTION CONTROL EQUIPMENT:**

NA

**I. EMISSION LIMIT(S)**

Opacity (visible emissions) not to exceed a six-minute average of 20%.

Facility appears to be in compliance.

**III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall display at each cure oven the Work Practice Standards attached as described in Appendix 10 for the computerized temperature control system (the "System").2 (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

2. The permittee shall not operate any of the ovens as burn-off ovens.2 (R 336.1224, R 336.1301, R 336.1331, R 336.1901, R 336.1910)

3. The permittee shall install and shall operate a computerized temperature control system (the "System") for all cure ovens and upon startup for any new ovens. The



System shall meet all of the requirements listed in Appendix 9. After the System is installed and operating properly for all of the ovens, the permittee shall not operate a cure oven unless the System is installed and operating properly with respect to that oven.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

4. The permittee shall operate a stack monitor to monitor emissions of particulate matter from EU-OVEN23. The permittee shall perform maintenance on the stack monitor, which shall consist of a semiannual Functional Check and an annual Manual Zero Procedure check according to the procedures listed in Appendix 9.2 (R 336.1205, R 336.1224, R 336.1901)

5. Each cure oven shall be clearly labeled with its respective oven number.2 (R 336.1201, R 336.1224, R 336.1901)

Facility appears to be in compliance.

## **VI. MONITORING/RECORDKEEPING**

1. If any visible emission, as defined in R 336.1301, is observed from any of the cure ovens, the cause shall be immediately investigated and the corrective action plan in Appendix 3 shall be implemented.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1702(a), R 336.1901)

2. The permittee shall perform a weekly non-certified visible emissions check when the cure ovens are operating. (The check shall be for not less than five minutes and can include several stacks at the same time.) A log of the visible emission checks shall be kept on file for five years and be made available to the Air Quality Division upon request. The log shall include the date and time of the check, the name of the person, the stacks checked, the result of the check and the actions taken if visible emissions are observed.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1901)

3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a circular chart temperature monitoring device on EU-OVEN23 to monitor and record the temperature on a continuous basis.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

4. The permittee shall keep, in a satisfactory manner, circular chart records of the temperature in EU-OVEN23. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

5. The permittee shall keep, in a satisfactory manner, a record of the maintenance and checks performed per Appendix 9 on the stack monitor.2 (R 336.1205, R 336.1224, R 336.1901)

6. The permittee shall record and maintain operating records, in the form of System-generated Job Orders and Oven Data Reports, for the curing of parts in each cure oven. All parts processed in a cure oven shall be documented in a System-generated Job Order and an Oven Data Report:

A. Each system-generated job order shall include:

1. A unique numeric identifier for the job (a "job order reference number").

2. The date(s) on which the job was processed in the oven(s).
3. For job(s) in which coatings are applied, the specific coating applied to the job.
4. For jobs in which coatings are applied, the number of parts processed for the job.
5. The oven(s) used for the job.
6. The employee(s) who processed the job.
7. The temperature(s) at which the parts were processed.
8. The length of time for processing the parts.
9. The customer name.

**B. Each system-generated oven data report shall include:**

1. The date(s) for curing the batch.
2. The start and finish times that the batch was in the oven(s).
3. The temperature at which the oven was set for curing the batch (the "set point").
4. The actual temperature of the oven(s) at one-minute intervals, provided, however, that the actual temperature of the oven(s) shall be recorded at one-hour intervals when the oven burner is not firing.
5. For batches to which coatings are applied, the specific coating applied to the batch.
6. For EU-OVEN23, the data recorded from the stack monitor pursuant to FG-CUREOVENS, SC III.4. Such data shall be recorded at one-minute intervals, provided, however, that such data shall be recorded at one-hour intervals when the oven burner is not firing.
7. The job order reference number denoting (as appropriate for curing) the coating, the oven temperature(s), and the length of time the batch is to remain in the oven(s).
8. The oven in which the curing occurred.
9. The name of the supervisor or data technician who, through the use of the centralized computer, entered the set point temperature for the cure oven and the length of time that parts are in the cure oven.
10. The customer name.

The permittee shall keep these records on file for a period of five years and made available to the Air Quality Division upon request.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

Facility appears to be in compliance.

## **VII. REPORTING**

All reporting reviewed when received and was received in a timely manner. Facility appears to be in compliance.

### VIII. STACK/VENT RESTRICTION(S)

All stacks appeared to be in compliance with permit requirements.

#### FG-BURNOFFOVENS:

DESCRIPTION: One (1) burn-off oven

Emission Units: EU-OVEN16-LBayco and all future burn-off ovens installed at the facility.

Pollution Control Equipment: Thermal Oxidizers

#### Emission Limits:

Pollutant	Limit	Time Period/Operating Scenario	Equipment
Hydrogen Fluoride	363.5 mg per cubic meter corrected to 70 degrees Fahrenheit and 29.92 inches Hg	Hourly	EU-OVEN16-LBayco
Opacity (visible emissions)	Not to exceed a six-minute average of 20 percent opacity	Hourly	EU-OVEN16-LBayco and all future ovens installed at the facility.

Facility appears to be in compliance with all emission limits.

### III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall install and operate a computerized temperature control system (the "System") for all burn-off ovens and upon startup of any new ovens. The System shall meet all of the requirements listed in Appendix 9. After the System is installed and operating properly for all of the ovens, the permittee shall not operate a burn-off oven unless the System is installed and operating properly with respect to that oven with respect to that oven.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

2. The permittee shall not operate any burn-off oven unless the thermal oxidizer is installed, maintained, and operated in a satisfactory manner. Satisfactory operation

of the thermal oxidizer includes maintaining a minimum temperature of 1400°F and a minimum retention time of 0.5 seconds. This condition shall not prevent the permittee from operating EU-OVEN16-LBayco at a temperature below 350 degrees Fahrenheit to boil off excess wash water or to dry water from parts and materials being processed by the permittee, without the use of the thermal oxidizer.<sup>2</sup> (R 336.1225, R 336.1331, R 336.1702, R 336.1901)

3. The permittee shall not remove fluorocarbons in more than one burn-off oven simultaneously.<sup>1</sup> (R 336.1225 R 336.1901)

4. Each burn-off oven shall be clearly labeled with its respective oven number.<sup>2</sup> (R 336.1201, R 336.1224, R 336.1901)

Facility appears to be in compliance.

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. The permittee shall verify the hydrogen fluoride emission rates from EU-OVEN16-LBayco by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

2. The permittee shall verify the hydrogen fluoride emission rates EU-OVEN16-LBayco, at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days before testing of the time and place performance tests will be conducted. (R 336.1213(3))

Facility appears to be in compliance.

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. If any visible emission, as defined in R 336.1301, is observed from any of the burn-off ovens, the cause shall be immediately investigated and the corrective action plan in Appendix 3 shall be implemented.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1702(a), R 336.1901)

2. The permittee shall perform a weekly non-certified visible emissions check when the burn-off oven(s) is/are operating. (The check shall be for not less than five minutes and can include several stacks at the same time.) A log of the visible emission checks shall be kept on file for five years and be made available to the Air Quality Division upon request. The log shall include the date and time of the check, the name of the person, the stacks checked, the result of the check and the actions taken if visible emissions are observed.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1901)

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner circular chart temperature monitoring devices on EU-OVEN16-LBayco to monitor and record the oven and thermal oxidizer temperatures on a continuous basis.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

4. The permittee shall keep, in a satisfactory manner, circular chart records of the burn-off oven and thermal oxidizer temperatures in EU-OVEN16-LBayco. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request.2 (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

5. The permittee shall record and maintain System generated operating records, in the form of Job Orders and Oven Data Reports, for the burning off of parts in each burn-off oven:

A. Each System-generated Job Order shall include:

1. A unique numeric identifier for the job (a "job order reference number").
2. The date(s) on which the job was processed in the oven.
3. The oven used for the job.
4. The employee(s) who processed the job.
5. The temperature(s) at which the parts were processed.
6. The length of time for processing the parts.
7. The customer name.

B. Each System-generated Oven Data Report shall include:

1. The date for burning off the batch.
2. The start and finish times that the batch was in the oven.
3. The temperature at which the oven was set for burning off the batch (the "set point").
4. The actual temperature of the oven at one-minute intervals; however, the actual temperature of the oven(s) will only be recorded at one-hour intervals when the oven burner is not firing.
5. The actual temperature of the thermal oxidizer at one-minute intervals when the thermal oxidizer is firing.

6. The job order reference number denoting (as appropriate for burn-off) the oven temperature(s) and the length of time the batch is to remain in the oven.

7. The oven in which the burning off occurred.

8. The name of the supervisor or data entry technician who, through the use of the centralized computer, entered the set point temperature for the burn-off oven and the length of time that parts are in the burn-off oven.

9. The customer name.

Facility appears to be in compliance.

All reporting reviewed when received and was received in a timely manner. Facility appears to be in compliance.

EU-Oven16-LBayco stack appeared to be in compliance with permit requirements.

#### FG-GENERALPERMIT:

**DESCRIPTION:** Coating lines installed at the Facility under a General Permit emitting up to 10 tons per year of VOC. A coating line is an operation, which is a single series in a coating process, and is comprised of one or more coating applicators and any associated flash-off areas, drying areas, and ovens wherein one or more surface coatings are applied and subsequently dried or cured. Surface coating may include any paint, lacquer, varnish, adhesive, or other coating material applied on a surface. Surfaces include any substrate except cans, coils, large appliances, metal furniture, magnet wire, fabrics, paper, vinyl, flat wood paneling, or graphic arts lines.

Emission Units: EU-SB7-Green, EU-SB8-Blue, EU-SB9-Yellow, EU-SB10-North

#### POLLUTION CONTROL EQUIPMENT

The North Line is controlled by a Regenerative Thermal Oxidizer except during exceptional operation which is identified in this permit as by-pass mode.

Pollutant	Limit	Time Period/Operating Scenario	Equipment
VOC	2000 lb/month	Calendar Month	Each coating line plus all associated purge and clean-up operations.
VOC	10 tpy	12-month rolling time period as determined at the end of each month	Each coating line plus all associated purge and clean-up operations.

**Facility was well within limits and appear to be in compliance.**

### **III. PROCESS/OPERATIONAL RESTRICTION(S)**

1. The permittee shall capture all purge/clean-up solvents and waste coatings from all coating applicators used in FG-GENERALPERMIT. The permittee shall store these materials in closed containers and shall dispose of them in an acceptable manner in compliance with all applicable state rules and federal regulations.2 (R 336.1702(d))

**Facility appears to be in compliance.**

### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

1. The permittee shall equip and maintain FG-GENERALPERMIT with high volume-low pressure (HVLP) spray applicators or comparable technology with equivalent transfer efficiency (e.g., electrostatic spray, dip, flowcoat, roller, dip-spin). For HVLP applicators, the permittee shall keep test caps available for pressure testing.2 (R 336.1702(d))
2. The permittee shall not operate any spray application unless particulate control (dry filters or a water curtain) is installed, maintained, and operated in a satisfactory manner.2 (R 336.1331)
3. A thermal oxidizer or catalytic oxidizer may be installed, maintained, and operated in a satisfactory manner to meet the requirements of this general permit. If a thermal oxidizer or catalytic oxidizer is used for FG-GENERALPERMIT, satisfactory operation requires an overall minimum of 76 percent reduction of VOC emissions to the atmosphere.2 (R 336.1224, R 336.1702(d))
  - a. Satisfactory operation of a thermal oxidizer includes maintaining a minimum combustion chamber temperature of 1400°F and a minimum retention time of 0.5 seconds. In lieu of a minimum temperature, an average temperature of 1400°F based upon a three-hour rolling average may be used.
  - b. Satisfactory operation of the catalytic oxidizer includes maintaining a minimum catalyst bed inlet temperature of 600°F. In lieu of a minimum temperature, an average temperature of 600°F based upon a three-hour rolling average may be used.
4. For a coating line using a thermal oxidizer: The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the thermal oxidizer to monitor and record the temperature on a continuous basis, during operation of FG-GENERALPERMIT. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.2 (R 336.1201a(1))
5. For a coating line using a catalytic oxidizer: The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a temperature monitoring device to continuously monitor the inlet and outlet temperatures of the catalytic oxidizer catalyst bed during operation of FG-GENERALPERMIT. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.2 (R 336.1201a(1))

**Facility appears to be in compliance.**

## **V. TESTING/SAMPLING**

**Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))**

1. Within 60 days of notification by the AQD, verification of VOC emissions and VOC content (in pounds per gallon) of any coating, reducer, or purge/clean-up solvent, as applied or as received, using federal Reference Test Method 25A, Method 24 or other EPA approved reference method, may be required for continued operation. Verification of the emission rates includes the submittal of a complete report of the test results to the AQD with 60 days following the last date of the test. Upon prior written approval by the AQD District Supervisor, VOC content may alternatively be determined from manufacturer's formulation data. If the Method 25A or Method 24 should differ from the formulation values, the permittee shall use the Method 25A or Method 24 results to determine compliance.<sup>2</sup> (R 336.2001, R 336.2003, R 336.2004, R 336.1702(d))

**Facility appears to be in compliance.**

## **VI. MONITORING/RECORDKEEPING**

1. For a coating line using a thermal oxidizer: The permittee shall monitor the temperature in the combustion chamber of the thermal oxidizer and record the temperature on a continuous basis, during operation of FG-GENERALPERMIT. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.<sup>2</sup> (R 336.1201a(1))
2. For a coating line using a catalytic oxidizer: The permittee shall continuously monitor the inlet and outlet temperatures of the catalytic oxidizer catalyst bed during operation of FG-GENERALPERMIT. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval.<sup>2</sup> (R 336.1201a(1))
3. The permittee shall keep the following information on a monthly basis for FG-GENERALPERMIT:
  - a. Purchase orders and invoices for all coatings, reducers, and purge/clean-up solvents.
  - b. VOC content, in pounds per gallon, of each coating, reducer and purge/clean-up solvent used.
  - c. Gallons of each coating, reducer and purge/clean-up solvent used and reclaimed.
  - d. VOC mass emission calculations determining the monthly emission rate for each coating line, in tons per calendar month, in a format acceptable to the AQD District Supervisor.
  - e. VOC mass emission calculations determining the annual emission rate for each coating line, in tons per 12-month rolling time period as determined at the end of each calendar month, the permittee shall keep all records in a format acceptable to the AQD District Supervisor.



The permit shall keep all records in a format acceptable to the AQD District Supervisor and make them available to the Department upon request.2 (R 336.1201a (1), R 336.1225, R 336.1702(d))

4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, including the weight percent of each component. The data may consist of Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records and make them available to the Department upon request.2 (R 336.1224, R 336.1225, R 336.1702(d))

5. For a coating line using a thermal or catalytic oxidizer: The permittee shall keep records of the date, duration, and description of any malfunction of the control equipment, any maintenance performed, any replacement of catalyst and any testing results.2 (R 336.1201a(1))

6. For a coating line using a thermal oxidizer: The permittee shall keep, in a satisfactory manner, operating temperature records for the thermal oxidizer as required by SC VI.1. If the measured operating temperature of the thermal oxidizer falls below 1400°F during operation of FG-GENERALPERMIT, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three-hour period which includes one or more temperature readings below 1400°F. The permittee shall keep all records and make them available to the Department upon request.2 (R 336.1201a (1))

7. For a coating line using a catalytic oxidizer: The permittee shall keep, in a satisfactory manner, operating temperature records for the catalytic oxidizer as required by SC VI.2. If the measured operating temperature of the catalytic oxidizer falls below 600°F during operation of FG-GENERALPERMIT, the permittee may demonstrate compliance based upon a three-hour average temperature, by calculating the average operating temperature for each three-hour period which includes one or more temperature readings below 600°F. The permittee shall keep all records and make them available to the Department upon request.2 (R 336.1201a(1))

Facility appears to be in compliance.

All reporting reviewed when received and was received in a timely manner. Facility appears to be in compliance.

FG-RULE 287(2)(c)

DESCRIPTION: Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rule 278, Rule 278a and Rule 287(2)(c). Emission units installed/modified before December 20, 2016, may show compliance with Rule 287 in effect at the time of installation/modification.

Emission Units installed on or after December 20, 2016: NA

Emission Units installed prior to December 20, 2016: EU-ORINGCOAT1, EU-ORINGCOAT2, EU-ORINGCOAT3, EU-ORINGCOAT4, EU-QUADCTR, EU-SB1, EU-SB2, EU-SB3, EU-SB4, EU-SB5, EU-SB6, EU-SB15, EU-SB16, EU-SB17, EU-SB18

**Material Limit**

Coating usage was well under the limit of 200 gallons/month (minus water as applied). Facility appears to be in compliance.

Records were being kept in an acceptable manner. Facility appears to be in compliance.

**FG-MACT MMMM**

**DESCRIPTION:** Each existing affected source described in 40 CFR 63.3881(a)(1), including the subcategories listed in 40 CFR Part 63, Subpart MMMM, 40 CFR 63.3881(a)(2) through (6), meeting the applicability requirements of 40 CFR 63.3881(b), which is engaged in the surface coating of miscellaneous metal parts and products. The affected source includes the collection of all the items listed in 40 CFR 63.3882(b)(1) through (4). Surface coating is defined by 40 CFR 63.3881 as the application of coating to a substrate using, for example, spray guns or dip tanks. Surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage if they are directly related to the application of the coating. 40 CFR Part 63, Subpart MMMM does not apply to surface coating or a coating operation that meets any of the criteria of 40 CFR 63.3881(c)(1) through (17).

**Emission Units:** EU-SB1, EU-SB2, EU-SB3, EU-SB4, EU-SB5, EU-SB6, EU-SB7-Green, EU-SB8-Blue,

EU-SB9- Yellow, EU-SB10-North, EU-SB15, EU-SB16, EU-SB17, EU-SB18, EU-ORINGCOAT1, EU-ORINGCOAT2, EU-ORINGCOAT3, EU-ORINGCOAT4, EU-QUADCTR, EU-METALCOAT

**POLLUTION CONTROL EQUIPMENT**

A Regenerative Thermal Oxidizer controls the emissions on the Superline and the North Line except during exceptional operation which is identified in this permit as by-pass mode.

Appears to be in compliance. The above coating lines (Emission Units) are subject to 40 CFR Part 63, Subpart MMMM. The Organic HAP content for Existing – High Performance Coatings allowed by this regulation is limited to 27.5 pounds/gallon of coating solids based on a 12-month rolling time period determined at the end of each calendar month. Records reviewed by staff indicate 5.1 pounds/gallon of Organic HAP. TEC is currently basing their compliance with the emission rate without add-on controls. However, the Subpart MMMM regulation allows them to retain the ability to change compliance methods potentially complying with the emission rate with the add-on controls option because they do have an RTO and Capture System.

All reporting reviewed when received and was received in a timely manner. Facility appears to be in compliance.

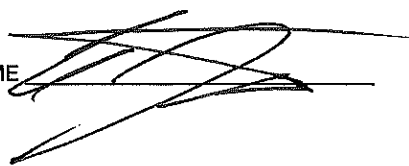
**FG-COLDCLEANERS**

All records were being maintained in an acceptable manner.

Lids on cold cleaners were closed at time of inspection.

At this time, the facility appears to be in compliance with all requirements of MI-ROP-N2610-2023.

NAME



DATE

8/22/24

SUPERVISOR



