

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

N261041264

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: 08/15/2017
STAFF: Matthew Deskins	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced Scheduled Inspection		
RESOLVED COMPLAINTS:		

On August 15, 2017 AQD Staff (Matt Deskins) went to conduct an unannounced scheduled inspection of the Toefco Engineered Coatings (TEC) facility located in Niles, Berrien County. TEC had been a synthetic minor source of hazardous air pollutants (HAPs) but they recently became a major source in 2015. They submitted an Initial Renewable Operating Permit (ROP) application and the ROP (MI-ROP-N2610-2017) was issued by the AQD in January 2017. The ROP incorporated six air permits issued to them by the AQD to TEC with four (PTI Nos. 214-03, 222-03, 223-03, 224-03) being general permits for coating lines, one (PTI No. 225-07C) for what is referred to as their Superline (Note: this permit had been modified back in 2014 for the installation of a Regenerative Thermal Oxidizer (RTO)), and one (PTI No. 32-01B) for the installation of a computerized system (Spec View) for their curing and burn off ovens. PTI No. 32-01B was modified in 2016 to remove the HAP Opt-Out limits prior to the submittal of the ROP application. Once TEC became a major source of HAPs, they also became subject to 40 CFR Part 63 Subpart M (NESHAP for Surface Coating of Miscellaneous Metal Parts and Products) which was added by also modifying PTI No. 225-07C in 2016 prior to the submittal of the ROP application. The intent of staff's inspection was to determine the facilities compliance with their ROP and any other state and/or federal air regulations. Staff departed for the facility at approximately 9:30 a.m.

Staff arrived at the TEC facility at approximately 10:45 a.m. Prior to entering the facility, staff took a few minutes of see if there were any visible emissions or odors coming from the facility and none were noted. Staff then proceeded into the building and rang a bell for assistance at the reception area. A TEC employee arrived a short time later and staff introduced them self and stated the purpose of the visit. Staff then asked if Artie McElwee (President and CEO) was around. She said he was out currently but that Brian (Maintenance Manager) could probably assist staff. She then paged Brian and about 10 minutes later Brian came to greet staff. Staff introduced them self to Brian and stated the purpose of the visit. Brian asked what the inspection would entail. Staff explained that they would need to take a walk through of the facility and look at all permitted equipment as well as review records required to be kept by the ROP. Brian stated he could definitely take staff through the facility but he didn't know about the records. Staff mentioned that was okay and that staff usually met with Scott Kucela (Controller) in regards to them. Brian then mentioned that he should probably phone Artie to see if he wanted to take staff around. Brian then called Artie who told said that Brian could take staff around. Prior to the plant walk through, staff told Brian that they would like to sit down somewhere and ask some general questions about plant operations. Brian then led staff to a conference room. It wasn't long after staff had asked some initial questions to Brian that Artie arrived. Artie took over things from there. The following is a summary of staff's discussion with Artie, the facilities operations, and their compliance status with their ROP and any other air regulations.

According to Artie, TEC still does the same type of work and are a large job shop coating facility that can do business with just about any industry that requires liquid, powder, or Teflon coatings. He said that 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. He said that the majority of the coatings currently used are wet, both water and solvent based and they haven't changed any. He said that they still do some 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. He said that business has been steady. During the prior inspection back in 2015, Artie had mentioned that they were looking to expand operations with another coating line similar to their Superline. Artie said it was cheaper to buy a building in the nearby industrial park to add a new line, which they did, so they are no longer looking to expand at the current location. Staff then asked about the number of employees and their current work schedule. Artie stated that they average around 60 employees between office personnel and production. He went on to state that they are operating 2 shifts Monday through Friday with an occasional Saturday. The two shifts are from 6:00 a.m. to 2:30 p.m. and then from 3:30 p.m. until Midnight. The hour in between shifts is where they try to cool the plant down before the next shift starts. Staff then asked how the RTO was running. Artie stated that the RTO has been running good with just some standard maintenance being required. Brian had mentioned to staff prior to Artie arriving that they would be changing the poppets out on it soon which would also include a thorough inspection. Artie confirmed what Brian had said.

Staff asked if the Spec View System was still in use and Artie said it was. This system was permitted (PTI No. 32-01B) and installed as part of a previous Consent Judgement. This system controls a job from start to finish and requires production employees to contact a supervisor or controller at various steps of the production process when a cure oven or burn off oven is needed to be operated. Staff then asked if there have been any changes made since the last inspection and Artie said that there hadn't. Staff then asked who disposes of their waste and Artie said that Superior Chemical still handles their solvent based waste and that En-Serv still handles their tank water waste.

Staff then went on a tour of the facility and the following is what staff noted.

Our first stop was in what they refer to as Job Shop Building 1. It houses 6 paint booths (1-6) and 13 drying ovens (1-7, 10-13, 19 and 20). All the individual paint booths at the facility were installed and are being operated under the AQD Rule 287(c) permit exemption. Staff noted that they all had filters installed in them and some of them were being used. Booth 6 was being used to coat a turbine housing, and Booths 2, 3 and 5 were being used to coat industrial air compressor parts. Staff also noted that the spray guns all appeared to be High Volume Low Pressure (HVLP). Staff noted that all booths and ovens were numbered. Staff also noted that all ovens were connected to the SpecView Computer Control System. Staff will go into the SpecView computerized control system later. Part of Building 1 also includes a couple of storage areas with one storing the powder coating products and another for the liquid coatings.

Our next stop was in what was referred to as Building 2. This building 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 oven. Parts to be painted are placed on the hooks of the chain that ultimately acts as a conveyor for the process. Staff noted that only the Green Line was running and it was powder coating 12 volt switch covers. The Yellow Line is the only booth in the facility equipped with an automatic (Robotic) sprayer. Artie said that they currently use the Blue Line maybe 4 times per month and the Yellow Line 3 to 5 times per week. The paint booths are numbered 7, 8, and 9 and the associated drying booths 14, 15, and 9.

Our next stop was in buildings 3 and 4. As mentioned in previous inspection reports, they use to be separated by a wall but Artie had it torn out to open up the area. Building 3 houses the North Line and its associated oven. As mentioned during previous inspections, it is equipped to do either powder or liquid coatings. Staff noted they were currently coating exhaust pipes. The spray booth is labeled 10 and the associated drying oven 18. The spray booth had its filter in place. This line has its emissions controlled by the RTO. Building 3 also house the Large Bayco Burn Off oven. The Small Bayco Burn Off oven used to be housed here but it was removed. They only have the one Burn-Off oven now and it wasn't currently in use.

Our next stop was when we proceeded outside to look at the RTO. The RTO is used to control the emissions from the North Line and the Superline. It was operating at 1505 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.

Our next stop was off to the side of Building 3 and is the blast room which houses several shot blast machines. Only one shot blaster exhausts to a baghouse outside the building now, all the others exhaust to a collector inside. The shot blast media used in the past has either been aluminum oxide or a product called Starblast made by Dupont.

Our next stop was at the Superline which is located in Building 4. It 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. Staff noted it was a conveyorized system and that they were currently painting/drying automotive mufflers. Staff noted that both booths had their filters in place. The spray booths are designated 19 and 20 and the curing oven 26. The Superline has its emissions controlled by the RTO (When not in allowed by-pass mode). Building 4 also houses 4 other small spray booths and 4 curing ovens. None were in use. The spray booths are designated 15-18 and the curing ovens 21, 23, 24, and 25. Oven 23 is the large Gerref Oven which was in use. Staff noted that it was operating at 715 degrees F and it is equipped with a chart recorder, the triboguard PM monitor, as well as the SpecView computerized operating system. There was also a Self Contained rolling Powder Booth adjacent to the Superline. It was being used to powder coat waffle irons.

Our last stop was at Building 5 which is strictly their Shipping and Receiving Warehouse.

Staff then proceeded with Artie back to the conference room where Scott followed bringing in records. Staff then mentioned if Artie and Scott wanted, they could go about their business and staff would write down any questions that they had. They agreed and left the room. The following are the Emission Unit and Flexible Group Conditions contained in their ROP and staff's comments regarding them.

<b>EU-METALCOAT EMISSION UNIT CONDITIONS</b>
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**DESCRIPTION**

A miscellaneous metal parts coating line that the Facility refers to as the Superline. The line consists of a three stage pretreatment washer, a dry-off oven, two paint spray booths, two flash-off areas, and a curing oven. The two spray booths are equipped with dry filters to control particulate overspray. The VOC emissions from this line will be controlled by an RTO except during exceptional operation that is identified in this permit as by-pass mode.

Flexible Group ID: FG-MACT MMMM, FG-FACILITY

**POLLUTION CONTROL EQUIPMENT**

The VOC emissions from this line will be controlled by a RTO except during exceptional operation that is identified in this permit as by-pass mode. Also, the two spray booths are equipped with dry filters to control particulate overspray.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	18.0 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	EU-METALCOAT	SC VI.3	R 336.1702(a)
2. Xylene (CAS No. 1330-20-7)	62.9 <sup>1</sup> lb/day	Calendar day	EU-METALCOAT	SC VI.4	R 336.1225(1)
3. Ethylbenzene (CAS No. 100-41-4)	2.8 tpy <sup>1</sup>	12-month rolling time period as determined at the end of each calendar month	EU-METALCOAT	SC VI.5	R 336.1225(3)

AQD Comment: Appears to be in Compliance. 12-Month Rolling Time Period records ending in June of 2017 reviewed by staff indicate VOC emissions at 4 tons per year and Ethylbenzene emissions at 0.7 tons per year. Records reviewed regarding Xylene calendar day emissions showed the highest daily emissions at 56.9 pounds per day.

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Coatings	3.5 lb VOC/gal (minus water) <sup>a</sup> as applied during RTO by-pass mode only <sup>2</sup>	Instantaneous	EU-METALCOAT	SC V.1	R 336.1702(a)
<sup>a</sup> The phrase "minus water" shall also include compounds which are used as organic solvents and which are excluded from the definition of volatile organic compound. (R 336.1602(4))					

AQD Comment: Appears to be in Compliance with the above limit. Most coatings being used now are quite a bit below this limit. The RTO was in operation during staff's inspection.

- The permittee shall not use the dry-off oven and/or the curing oven portions of EU-METALCOAT as a burn-off oven.<sup>1</sup> (R 336.1901)

AQD Comment: Appears to be in Compliance.

**III. PROCESS/OPERATIONAL RESTRICTIONS**

- 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))

AQD Comment: Appears to be in Compliance. Staff did not observe any issues and Superior Chemical disposes of their wastes. They don't reclaim any of the materials used.

- 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))

AQD Comment: Appears to be in Compliance. Staff did not observe any issues.

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)

AQD Comment: Appears to be in Compliance. Staff assumes that the facility is doing this

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))

AQD Comment: Appears to be in Compliance. Staff assumes that the facility is doing this

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 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.
  - 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.
  - 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.
  - A description of the procedures to capture, handle, and dispose of all materials to minimize the generation of fugitive emissions per SC numbers 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)

AQD Comment: Appears to be in Compliance with the above and a MAP was submitted to the AQD.

#### IV. DESIGN/EQUIPMENT PARAMETERS

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)

AQD Comment: Appears to be in Compliance. Filters were in place.

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))

AQD Comment: Appears to be in Compliance. HVLP spray guns or electrostatic are used. Staff did not ask about test caps.

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)

AQD Comment: Appears to be in Compliance. Staff was told that the RTO is always running except when in by-pass mode. The RTO was tested and met the requirements above for capture and VOC destruction efficiency. The unit was in operation during staff's inspection and was operating at 1505 degrees F.

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))

AQD Comment: Appears to be in Compliance. The RTO temperature is being monitored continuously and recorded by digital/electronic means.

#### V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

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))

AQD Comment: Staff mentioned to the facility that if manufacturer's formulation data does not use Method 24 mentioned above to determine VOC content, then a request to the District AQD Supervisor needs to be submitted to use it.

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)

AQD Comment: Appears to be in Compliance. The RTO was tested and met the requirements above for VOC destruction efficiency. A test plan and report were submitted.

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)

AQD Comment: Appears to be in Compliance. The RTO was tested and met the requirements above for capture efficiency. A test plan and report were submitted.

#### VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

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

AQD Comment: Appears to be in Compliance.

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.<sup>2</sup> (R 336.1225, R 336.1702)

AQD Comment: Appears to be in Compliance. The facility maintains SDS sheets.

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.<sup>2</sup> (R 336.1702)

AQD Comment: Appears to be in Compliance with A through E above.

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.<sup>1</sup> (R 336.1225(1))

AQD Comment: Appears to be in Compliance with A through D above.

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.<sup>1</sup> (R 336.1225(3))

AQD Comment: Appears to be in Compliance with A through E above.

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.<sup>2</sup> (R 336.1225, R 336.1702(a))

AQD Comment: Appears to be in Compliance. The RTO temperature is being monitored continuously and recorded by digital/electronic means.

#### VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with the above. No deviations have been reported to date and the 1<sup>st</sup> Semi-Annual and/or Annual reports will be due in mid-September.

#### VIII. STACK/VENT RESTRICTIONS

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

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Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-PSB1*	24 <sup>2</sup>	28.9 <sup>2</sup>	R 336.1225, 40 CFR 52.21(c) and (d)
2. SV-PSB2*	24 <sup>2</sup>	28.9 <sup>2</sup>	R 336.1225, 40 CFR 52.21(c) and (d)
3. SV-CO* (Curing Oven)	11 <sup>2</sup>	25.5 <sup>2</sup>	R 336.1225, 40 CFR 52.21(c) and (d)
4. SV-RTO	42 <sup>2</sup>	30.0 <sup>2</sup>	R 336.1225, 40 CFR 52.21(c) and (d)

\*By-pass Mode Only

AQD Comment: Appears to be in Compliance with the above stack dimensions.

**IX. OTHER REQUIREMENTS**

- 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.<sup>1</sup> (R336.1225(4))

AQD Comment: A land use change has not occurred.

- 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.<sup>2</sup> (40 CFR Part 63, Subpart Mmmm)

AQD Comment: Appears to be in Compliance. See comments made under FG-MACTMMMM below.

**FG-CUREOVENS  
FLEXIBLE GROUP CONDITIONS**

**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-OVEN 15-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.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Opacity (Visible Emissions)	Not to exceed a six minute average of 20% <sup>2</sup> .	Test Protocol	FG-CUREOVENS	SC VI.1 SC VI.2	R 336.1205 R 336.1224 R 336.1225 R 336.1301 R 336.1901

AQD Comment: Appears to be in Compliance. No VEs were noted during the inspection.

**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").<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. Work Practice Standards are displayed at each cure oven.

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

AQD Comment: Appears to be in Compliance. Staff assumes this isn't being done.

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.<sup>2</sup> (R336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. The system in use is called the Spec-View System.

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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1901)

AQD Comment: Appears to be in Compliance. The oven is equipped with a Triboguard PM monitor and they appear to be maintaining it.

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

AQD Comment: Appears to be in Compliance. Each cure oven is numbered.

See Appendices 9 and 10

#### 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 cure 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)

AQD Comment: Staff will consider them to be in Compliance but the facility hasn't been doing weekly VE readings recently. Staff reminded the facility that they need to be doing these.

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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1901)

AQD Comment: Staff will consider them to be in Compliance but the facility hasn't been doing weekly VE readings recently. Staff reminded the facility that they need to be doing these.

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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. The oven is equipped with a circular chart recorder.

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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. The facility is maintaining these.

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

AQD Comment: Appears to be in Compliance.

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 5. 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)

AQD Comment: Appears to be in Compliance with the requirements of A and B above. Everything is controlled by the Spec-View System.

See Appendices 3 and 9

## VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with 1 through 3 above. No deviations have been reported to date and the 1<sup>st</sup> Semi-Annual and/or Annual reports will be due in mid-September.

## 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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. EU-OVEN1-1	10 <sup>2</sup>	19-7 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
2. EU-OVEN2	4 <sup>2</sup>	23-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
3. EU-OVEN3-1	10 <sup>2</sup>	18-4 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
4. EU-OVEN4	6 <sup>2</sup>	24-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
5. EU-OVEN5	4 <sup>2</sup>	24-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
6. EU-OVEN6	4 <sup>2</sup>	20-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
7. EU-OVEN7	6 <sup>2</sup>	24-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
8. EU-OVEN9-Yellow	8 <sup>2</sup>	31-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
9. EU-OVEN10	8 <sup>2</sup>	23-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
10. EU-OVEN11	6 <sup>2</sup>	24-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
11. EU-OVEN12	7 <sup>2</sup>	23-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
12. EU-OVEN13	6 <sup>2</sup>	23-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
13. EU-OVEN14-Green	7 <sup>2</sup>	21-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
14. EU-OVEN15-Blue	12 <sup>2</sup>	24-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
15. EU-OVEN18	9 <sup>2</sup>	26-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
16. EU-OVEN19	7 <sup>2</sup>	30-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
17. EU-OVEN20	9x13 <sup>2</sup>	21-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
18. EU-OVEN21	6 <sup>2</sup>	22-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)

19. EU-OVEN23	14 <sup>2</sup>	32-0 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
20. EU-OVEN24	11 <sup>2</sup>	24-4 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
21. EU-OVEN25	10 <sup>2</sup>	20-5 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)
22. EU-OVEN26	10.75 <sup>2</sup>	29-6 <sup>2</sup>	R 336.1901 40 CFR 52.21 (c) and (d)

AQD Comment: Appears to be in Compliance. The stacks appear to meet the dimensions above.

FG-BURNOFFOVENS  
FLEXIBLE GROUP CONDITIONS

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

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Hydrogen Fluoride	363.5 mg per cubic meter corrected to 70 degrees Fahrenheit and 29.92 inches Hg. <sup>1</sup>	Test Protocol	EU-OVEN16-LBayco	SC V.1	R 336.1225 R 336.1901 R 336.1213 (3)
2. Opacity (Visible Emissions)	Not to exceed a six-minute average of 20 percent opacity. <sup>2</sup>	Test Protocol	EU-OVEN16-LBayco and all future ovens installed at the facility.	SC VI.1 SC VI.2	R 336.1205 R 336.1224 R 336.1225 R 336.1301 R 336.1901

AQD Comment: Appears to be in Compliance. Testing for HF will have to be done within 180 days of expiration of the ROP and VEs were not observed during the inspection.

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. The system installed is called a Spec-View System.

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)

AQD Comment: Appears to be in Compliance.

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

AQD Comment: Appears to be in Compliance. The facility only has this burn-off oven now.

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)

AQD Comment: Appears to be in Compliance. The burn-off oven is labeled.

See Appendix 9

#### 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 least 180 days prior to the expiration date of this ROP. (R 336.1213(3))
2. The permittee shall submit a complete test protocol to the AQD for approval at least 60 days prior to the anticipated test date. (R 336.1213(3))
3. The permittee shall notify the AQD District Supervisor and Technical Program Unit no less than 7 days prior to the anticipated test date. (R 366.2001(3))
4. The permittee shall submit a complete test report of the test results to the AQD District Supervisor and Technical Program Unit within 60 days following the last date of the test. (R 336.2001(5))

AQD Comment: Appears to be in Compliance with 1 through 4 above. Testing will be required within 180 days of the expiration of the ROP.

#### 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)

AQD Comment: Staff will consider them to be in Compliance but the facility hasn't been doing weekly VE readings recently. Staff reminded the facility that they need to be doing these.

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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1301, R 336.1901)

AQD Comment: Staff will consider them to be in Compliance but the facility hasn't been doing weekly VE readings recently. Staff reminded the facility that they need to be doing these.

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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance. The oven is equipped with a circular chart recorder that records on a continuous basis.

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.<sup>2</sup> (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901)

AQD Comment: Appears to be in Compliance.

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.

The permittee shall keep these records on file for a period of five years and make them 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)

AQD Comment: Appears to be in Compliance with the requirements of A and B above. Everything is controlled by the Spec-View System.

See Appendix 3

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with 1 through 3 above. No deviations have been reported to date and the 1<sup>st</sup> Semi-Annual and/or Annual reports will be due in mid-September.

**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 Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. EU-OVEN16-LBayco	16 <sup>2</sup>	34-1.5 <sup>2</sup>	R 336.1225 R 336.1901 40 CFR 52.21 (c) and (d)

AQD Comment: Appears to be in Compliance with the stack dimensions listed above.

**FG-GENERALPERMIT  
FLEXIBLE GROUP CONDITIONS**

**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 bypass mode.

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	2000 lb/month <sup>2</sup>	Calendar Month	Each coating line plus all associated purge and clean-up operations.	SC VI.3	R 336.1225 R 336.1702(d)
2. VOC	10 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month	Each coating line plus all associated purge and clean-up operations.	SC VI.3	R 336.1225 R 336.1702(d)

AQD Comment: Appears to be in Compliance with 1 and 2 above. Recent records reviewed by staff indicate monthly emissions at 0 for the Green Line, 726 pounds for the North Line, 77 pounds for the Blue Line, and 766 pounds for the Yellow Line. 12-Month rolling totals in tons for the lines above were 0.0, 3.5, 0.2, and 1.5 respectively.

**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.<sup>2</sup> (R 336.1702(d))

AQD Comment: 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.<sup>2</sup> (R 336.1702(d))

AQD Comment: Appears to be in Compliance. HVLP spray guns or electrostatic are used. Staff did not ask about test caps.

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.<sup>2</sup> (R 336.1331)

AQD Comment: Appears to be in Compliance. All spray booths had particulate dry filters.

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<sup>2</sup> (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.

AQD Comment: Appears to be in Compliance. The North Line is the only line that is tied into the facilities RTO. The RTO is operated at 1500 degrees F or above.

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.<sup>2</sup> (R 336.1201a(1))

AQD Comment: Appears to be in Compliance. The North Line is the only line that is tied into the facilities RTO and the temperature is being monitored continuously and recorded by digital/electronic means.

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.<sup>2</sup> (R 336.1201a(1))

AQD Comment: N/A

#### 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))

AQD Comment: Appears to be in Compliance. No testing on any of the lines or coatings has been requested to date.

#### VI. MONITORING/RECORDKEEPING

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

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))

AQD Comment: Appears to be in Compliance. The RTO temperature is being monitored continuously and recorded by digital/electronic means.

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))

AQD Comment: N/A

3. The permittee shall keep the following information on a monthly basis for FG-GENERALPERMIT:

- Purchase orders and invoices for all coatings, reducers, and purge/clean-up solvents.
- VOC content, in pounds per gallon, of each coating, reducer and purge/clean-up solvent used.
- Gallons of each coating, reducer and purge/clean-up solvent used and reclaimed.
- 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.
- 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.<sup>2</sup> (R 336.1201a(1), R 336.1225, R 336.1702(d))

AQD Comment: Appears to be in Compliance with A through E above.

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.<sup>2</sup> (R 336.1224, R 336.1225, R 336.1702(d))

AQD Comment: Appears to be in Compliance. The facility maintains SDS sheets.

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.<sup>2</sup> (R 336.1201a(1))

AQD Comment: N/A

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.<sup>2</sup> (R 336.1201a(1))

AQD Comment: Appears to be in Compliance.

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.<sup>2</sup> (R 336.1201a(1))

AQD Comment: N/A

## VII. REPORTING

- Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))

- Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with 1 through 3 above. No deviations have been reported to date and the 1<sup>st</sup> Semi-Annual and/or Annual reports will be due in mid-September.

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

- The exhaust gases from FG-GENERALPERMIT shall be discharged unobstructed vertically upwards to the ambient air at exit points not less than one and one half times the building height (from ground level to point of discharge).<sup>1</sup> (R 336.1225)

AQD Comment: Appears to be in Compliance.

**IX. OTHER REQUIREMENT(S)**

- The permittee shall not replace or modify any portion of FG-GENERALPERMIT, including control equipment or coatings, nor install additional coating lines (or any portion of, including control equipment or coatings) unless all of the following conditions are met<sup>2</sup> (R 336.1201):
  - The permittee shall update the general permit by submitting a new Process Information form (EQP5759) to the Permit Section and District Supervisor, identifying the existing and new equipment a minimum of 10 days before the replacement, modification or installation of new equipment.
  - The permittee shall continue to meet all general permit to install applicability criteria after the replacement, modification or installation of new equipment is complete.
  - The permittee shall keep records of the date and description of the replacement or modification, installation of new equipment, or any coating change. All records shall be kept on file for a period of at least five years and made available to the Department upon request.

AQD Comment: Appears to be in Compliance.

- 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 A and Subpart Mmmm for Surface Coating of Miscellaneous Metal Parts and Products by the initial compliance date.<sup>2</sup> (40 CFR Part 63, Subparts A and Mmmm)

AQD Comment: Appears to be in Compliance. See comments made under FG-MACTMMMM below.

FG-RULE 287(c)  
FLEXIBLE GROUP CONDITIONS

**DESCRIPTION**

Any emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 287(c).

Emission Units: 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

**II. MATERIAL LIMIT(S)**

Material	Limit	Time Period/ Operating Scenario	Equipment	Underlying Applicable Requirement
1. Coatings	200 gallons	Per month, as applied, minus water, per emission unit	NA	R 336.1287(c)(i)

AQD Comment: Appears to be in Compliance. Recent records reviewed by staff indicate that all emission units were below 200 gallons per month. Booth 18 had the highest at 65.4 gallons used.

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

- Any exhaust system that serves only coating spray equipment shall be equipped with a properly installed and operating particulate control system. (R 336.1287(c)(ii))

AQD Comment: Appears to be in Compliance. All units are equipped with particulate control.

**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 maintain records of the following information for each emission unit for each calendar month using the methods outlined in the DEQ, AQD Rule 287(c), Permit to Install Exemption Record form (EQP 3562) or in a format acceptable to the AQD District Supervisor (R 336.1213(3)):
  - a. Volume of coating used, as applied, minus water, in gallons. (R 336.1287(c)(iii))
  - b. Documentation of any filter replacements for exhaust systems serving coating spray equipment. (R 336.1213(3))

AQD Comment: Appears to be in Compliance with the above.

**VII. REPORTING**

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

AQD Comment: Appears to be in Compliance with 1 through 3 above. No deviations have been reported to date and the 1<sup>st</sup> Semi-Annual and/or Annual reports will be due in mid-September.

See Appendix 8

**IX. OTHER REQUIREMENT(S)**

1. 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 A and Subpart M MMMM for Surface Coating of Miscellaneous Metal Parts and Products by the initial compliance date.<sup>2</sup> (40 CFR Part 63, Subparts A and M MMMM)

AQD Comment: Appears to be in Compliance. See comments made under FG-MACT MMMM below.

FG-MACT MMMM FLEXIBLE GROUP CONDITIONS
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**DESCRIPTION**

Each new, reconstructed, and existing affected source described in 40 CFR 63.3881(a)(1), including the subcategories listed in 40 CFR Part 63, Subpart M MMMM, 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 M 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).

**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.

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, EUORINGCOAT4, EU-QUADCTR, EU-METALCOAT

The above coating lines (Emission Units) are subject to 40 CFR Part 63, Subpart M 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 ending June of 2017 indicate 5.4 pounds/gallon of Organic HAP. TEC is currently basing their compliance with the emission rate without add-on controls. However, the Subpart M 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. TECs first submittal of the semi-annual compliance certification reports for Subpart M MMMM and ROP/Deviation Reports will be due in September.

**FG-FACILITY  
FLEXIBLE GROUP CONDITIONS**

**DESCRIPTION**

All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

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, EU-OVEN16-LBayco, EU-SB7-Green, EU-SB8-Blue, EU-SB9-Yellow, EU-SB10-North, 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, EU-METALCOAT, EU-FACILITY

**I. EMISSION LIMIT(S)**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC	30.0 tpy <sup>2</sup>	12-month rolling time period as determined at the end of each calendar month.	FG-FACILITY	SC VI.1 SC VI.2	R336.1225 R336.1702

AQD Comment: Appears to be in Compliance. Records reviewed by staff ending in June of 2017 indicate emissions at 11.4 tons.

**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 keep VOC mass emission calculations, on a monthly basis for FG-FACILITY determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month, for all coating lines and associated purge and clean-up operation at the source. The permittee shall keep all records in a format acceptable to the AQD District Supervisor and make them available to the Department upon request.<sup>2</sup> (R 336.1225, R 336.1702)
2. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30<sup>th</sup> day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition.<sup>2</sup> (R 336.1225, R 336.1702)

AQD Comment: Appears to be in Compliance with 1 and 2 above.

**IX. OTHER REQUIREMENT(S)**

1. 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 A and Subpart M MMMM for Surface Coating of Miscellaneous Metal Parts and Products by the initial compliance date. (40 CFR Part 63, Subparts A and M MMMM)

AQD Comment: Appears to be in Compliance.

**Inspection Summary: The facility appears to be in Compliance with the terms and conditions contained in ROP No. MI-ROP-N2610-2017 at the present time.**

NAME Matt Dash

DATE 8-28-17

SUPERVISOR MD 8/30/2017