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

B419764171

FACILITY: AAR Mobility Systems		**SRN / ID:** B4197
LOCATION: 201 Haynes St., CADILLAC		**DISTRICT:** Cadillac
CITY: CADILLAC		**COUNTY:** WEXFORD
CONTACT: Greg Shay ,		**ACTIVITY DATE:** 06/15/2022
STAFF: Sharon LeBlanc	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Onsite inspection and records review report- note that some non-compliance issues were identified, the company is presently working with District Staff to correct issues identified. LOV will be issued if issues are not resolved by December 1, 2022. sgl		
RESOLVED COMPLAINTS:		

On June 15 and July 20, 2022, AQD District Staff visited the AAR Mobility Systems (AKA AAR) Facility (B4197) located at 201 Haynes Street, Cadillac, Wexford County, Michigan. The purpose of the site visit was to conduct a site inspection and records review as part of a Full Compliance Evaluation (FCE) for the 2022 Fiscal Year (FY). This document reflects the information obtained during the referenced visits.

The referenced facility is a Major Source and is permitted under Renewable Operating Permit (ROP) Number MI-ROP-B4197-2016C. A ROP renewal application for the Facility was received on March 21, 2021. The permit shield was issued on April 2, 2021.

Gaylord Field Office Staff met with Mr. Greg Shay, Environmental Manager, AAR Mobility Systems.

FACILITY

AAR is a manufacturer of mobility system, mobility-rapid deployment equipment and mobile tactical shelters used by the military. Their website indicates that they offer air mobile containers and palletized systems as part of their product line. In addition to manufacturing new products, AAR also rebuilds/reconditions pallets.

Facility records are maintained using an Automated Chemical Information Management System (ACIMS).

Products are reported to be composed of various combinations of aluminum, balsa wood, and fiberglass. Manufacturing processes use a combination of hand application and computer numerical controlled (CNC) equipment. Onsite activities include woodworking, metal preparation and machining, adhesive coating application, gluing, paint application and assembly. The Facility purchases extruded aluminum to process onsite. Coatings and associated additives, cleaners and solvents are limited in number. Processes found on the site are summarized below:

Main Building -

- EU500HPBOILER

This EU consists of a Natural Gas (NG) -fired boiler for building heat. The unit was installed in 2007 and is rated at 20.9 MMBtu/Hr heat input. No pollution control equipment is associated with the EU.

Note that a second identical unit from a sister plant located out of state has been relocated onsite, but at the time of the June 15, 2022, the unit was not hooked up for operation. A review of historical site reports indicated that a 400 HP Boiler had previously been located onsite but was removed on or before the time of the previous ROP Renewal.

- EUAIRSTRIPPER

This EU consists of a packed scrubber tower used to strip VOCs from the groundwater pumped from the aquifer located beneath the plant. The EU was installed in 1988 under a consent decree to cleanup of chemicals associated with a bath and etching process operated by a previous owner.

The PTI associated with the EU is 100-84. When asked Facility staff indicated that contaminant levels associated with the site had in 2014 reached levels in which the Facility had the option to shut down the stripper and go into monitoring but had chosen to continue operating the EU. Fibertech is the third-party tester.

- EUWOODROOM

Reported to have been installed in 1979, EUWOODROOM contains several woodcutting machines including both a horizontal and vertical band saws, straight line rip saw and belt sanders used to size balsa wood panels for pallet frames. The saws exhaust into a baghouse.

- EUBALSACORE

In this process, adhesive coating is applied to tops and bottoms of balsa wood panels. From there the panels travel through a curing oven and are stacked and transported for assembly into pallet frames. VOCs which flash-off in the curing oven go to the Regenerative Thermal Oxidizer (RTO) for destruction.

The process also includes a CNC router for sizing panels which is operated only when there is insufficient staff in EUWOODROOM. Additional process components include:

- Panel core duster,
- 48-inch glue spreader,
- Edge adhesive spray chamber,
- Panel core transfer stand,
- Infrared pass-thru oven (Max temp of 400 degrees F),
- Cool down booth, and
- Panel core unload

The process has an emission capture system and operates as a Permanent Total Enclosure (PTE). VOCs and HAPs (primarily toluene) are controlled by the RTO. Note that particulate emissions are directed to the existing wood baghouse which since January 2020 baghouse issues the damper at the dust collector exhaust stack to route the baghouse to the atmosphere. The baghouse is reported to be cleaned by reverse pulsing.

- EUSKINORRAIL

This automated process applies adhesive to aluminum skins and/or rails using an automatic spray booth, enclosed transfer conveyor, infrared oven and cool-down booth. The FM47 adhesive used on this line is heated (to a constant 85 degrees) with a small heater and constantly cycled in a sealed 55-gallon drum, which eliminates the need for purging and reduces use of thinners. Emissions are vented to the RTO for destruction. Toluene is reported to be the main HAP.

This process has an emission capture system (does not include the cool down booth) and operates as a PTE. It was reported at the time of the June 15, 2022, site inspection that should the RTO go down, the process stops coating additional units, but any units already in the process line will continue to move along the line completing the run.

- EU197LINE and EU197LINENOCTRL

These EUs utilize equipment associated with one coating line consisting of one dry filter paint booth with two manual applicators and one oven that was reported to have been installed in 1994. Emissions for EU197Line are vented to the RTO for thermal destruction. Emissions for EU197LINENOCTRL bypass the RTO and are vented directly to the outside atmosphere. Because the paint booth and oven are separated the EUs (EU197LINE and EU197LINENOCTRL) are not PTEs. Both units have emission capture systems.

Coatings associated with EU197LINENOCTRL include coatings with VOC content of ≤2.8 lbs VOC/gal as applied (minus water). EU197LINE has no VOC material limits with respect to coatings. The Facility reports that any coating used in EU197LINE with a VOC content greater than 2.8 lbs/gal (and without PCBTF) goes to the RTO.

EU197LINENOCTRL was permitted to utilize a coating containing P-chlorobenzo trifluoride (PCBTF) (CAS # 98-56-6). An internet search indicated that PCBTF is a low VOC solvent used in coatings. RTO destruction of PCBTF is reported to result in the generation of dioxins, etal. The Facility reports that at the time of the site inspection PCBTF coatings are limited to a zinc coating used by the Facility. Coatings that contain <2.8lgs VOC/gallon and those containing PCBTF bypass the RTO.

- EUCONTAINERLINE and EUCONTNRNOCTRL

These EUs utilize equipment associated with one continuous coating line consisting of one prime filter paint booth (with two manual applicators), one dry filter paint booth (with two manual applicators) and a steam heated oven. Because the equipment are in a continuous, and connected line, the EUs which have emission capture control devices are considered PTEs.

EUCONTAINERLINE vents VOC emissions to the RTO prior to exhausting to the outer atmosphere. Emissions for coatings containing >3.5 lb VOC/gallons as applied, minus water are vented to the RTO for destruction. The Facility reported that the referenced coating VOC content were associated with a proposed product line that did not go into production. The equipment is presently operated with the RTO bypassed. The Facility reports it has operated in bypass since 2019.

The ROP conditions for EUCONTAINERLINE are limited to those found in FGCOATINGS and FGMACT.

The process EUCONTNRNOCTRL bypasses the RTO and is limited to conditions 1) when coatings contain PCBTF which cannot be vented to the RTO and/or 2) when VOC content for coatings is ≤3.5 lb/gallon as applied, less water. As the line is used primarily for applying chemical resistant coatings (AKA CARC Coatings) which meet the material limits, and has been able to meet emission limits associated with the EU.

- Regenerative Thermal Oxidizer (RTO)

The RTO acts as the control device for VOC and HAP emissions for the various coating processes. Destruction efficiency is verified by stack testing every five years. At that time RTO operating parameters (temperature) to demonstrate continued compliance with permit requirements under 40 CFR Part 64 requirements as well as 40 CFR Part 63 Subpart MMMM are determined.

Facility Staff reported that there are at present three calibrated thermocouples in the RTO destruction chamber to monitor temperature. Inspections and calibrations are conducted quarterly (at minimum) during downtime by Pyromation. The Facility uses a computerized maintenance management system (CMMS) to schedule regular maintenance activities. Quarterly events are done when unscheduled downtime or when the RTO temperature graph indicates that a probe is not reading correctly.

Lakeside Building – Located on the south side of the property. Facility staff report that this building is grandfathered for fugitives.

- EUPAINT/GRIND

Reported to be installed in 1966, used pallets are dismantled and reusable aluminum components recycled/reused to construct new pallets. The process in part completed by removal of the aluminum skin, and underlying balsa core. The balsa core is ground/chipped onsite to be transported offsite for fuel. Wood cores unable to be reused or burned as fuel are reported to properly be disposed of at the landfill. Emissions are released into the in-plant environment.

Old adhesive is removed from the aluminum pallet frames to be recycled/reused, using a hand grinder. FM47 adhesive solvent is applied by hand to the aluminum pallet frame prior to transport to the main building for assembly.

No PTIs are associated with this EU.

In 2015, the Facility reported approximately 70-80 percent of the panels were made from recycled panel parts. At the time of the June 15, 2022, site inspection, the Facility staff confirmed that a good portion of their activities are associated with recycling panel components.

EULMS Building - Located on the eastern portion of the property between the main plant and the Lakeside building.

- EULMS

This EU is associated with the construction of Light Mobility Shelters (LMS), and uses a CNC router and a saw to produce metal parts (panels) from aluminum. Coating application is limited to aerosol cans. Per the ROP, particulate emissions are captured using a cyclone baghouse for control. However, Facility staff indicated that they only use a cyclone to capture the metallic

particulate. The Facility reports that there was a baghouse once associated with the EU, but that it had been removed some years ago. Stack testing conducted on October 19-22, 2021, verified that PM emissions post cyclone are below emission limits.

The stack associated with the cyclone (also referred to as the metal chip collector) SVCYLONE is reported to be 10 feet high, and 8-inches in diameter.

Multiple locations –

- Cold Cleaners (FGCOLDCLEANERS) –

Cold cleaner at various locations and with a variety of "solvents" acetone being the most common. Per the March 21, 2021, ROP Renewal application FGCOLDCLEANERS consists of the following:

Cold Cleaner	Solvent	Usage for Year	VOC PTE TPY
#1	Denatured Alcohol	60	0.195
#2	Methyl N-Amyl Ketone (MAK)	12	0.041
#3	FM47 thinner	12	0.044
#4	FM47 thinner	12	0.044
#5	Tertiary Butyl Acetate (TBA)	12	0
#6	Mineral Spirits	60	0.192

Other –

Chemical Storage/Waste Storage- containers were noted to be closed, and waste materials appeared properly handled at the time of the June 15, 2022, site inspection. Waste materials in general are reported to go to the Wexford County Landfill. The Facility reports doing a TCLP metals analysis for appropriate waste materials. Processes generating the waste materials are reviewed, sampled, analyzed and characterized by TCLP or SDS to determine proper disposal.

Fuel source for the facility is reported to be Natural Gas (NG). No emergency generators exist onsite. Compressors for the facility are reported to be electric. Office space is reported to use HVAC units to control temperatures.

Adjacent properties include the Consumers Power, National Guard Armory and Cadillac Jr. High School west of the Facility. South of the Facility is the park and Lake Cadillac. Residential properties are located to the east and north of the Facility.

Note that visitors must pass a security clearance, a driver's license is requested by the Facility on arrival.

FACILITY CHANGES - Information provided by AAR Staff indicated that any Facility changes have been completed as part of PTI Modifications. The Facility added a "bead blaster" since the 2015 site inspection.

PERMITTED EUs – A total of 20 EUs are identified in the ROP EU summary table. In addition, the ROP identifies a total of six FGs

Activity Type/Description	Emission Unit	Pollution Control Device	Flexible Group
Remediation/Scrubber	EUAIRSTRIPPER	NA	NA
Coating line	EU197LINE*	Regenerative Thermal Oxidizer (RTO)	FGCOATINGS FGMACT
Coating line	EUCONTAINERLINE*	RTO	FGCOATINGS FGMACT
Coating line	EU197LINENOCTRL**	NA	FGMACT
Coating line	EUCONTNRNOCTRL	NA	FGMACT
Adhesive Line	EUBALSACORE*	Baghouse and RTO	FGMACT FGCOATINGS FGPARTICULATE
Adhesive Line	EUSKINORRAIL*	RTO	FGMACT FGCOATINGS
Cleanup of applicators	EUCLEANUP	RTO except for EU197LINENOCTRL and EUCONTNRNOCTRL	FGMACT FGCOATINGS
Refurbish/Rebuild	EUGRIND/PAINT	Vented into in-plant atmosphere	NA

Wood working	**EULMS***	**Cyclone**	**FGPARTICULATE**
Woodworking	**EUWOODROOM***	**Baghouse**	**FGPARTICULATE**
Rule 201 exempt	**EURULE290**	**NA**	**FGRULE290**
Rule 201 exempt pursuant to R278 and R287(c)	**EU287(c)**	**NA**	**FGRULE287(c)**
Cold Cleaner	**EUCOLDCLEANER1***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER2***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER3***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER4***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER5***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER6***	**NA**	**FG-COLDCLEANERS**
Boiler for Heat	**EU500HPBOILER**	**NA**	**NA**

***These EUs have no EU specific conditions in the ROP. Conditions are limited to those for the FG they are associated with.**

****EU197LINENOCTRL was reported to have previously been evaluated for coating of pallet rings under the exemption Rule 287(2)(c). The Facility reports that based on discussions with consultants and AQD staff it was determined that pallet rings coating with a zinc-coating would require permitting (PTI 163-07D).**

EXEMPT EUs – A number of exempt EUs are of record for the facility, these have been identified as:

- Woodworking and metal working equipment in machine shop (Main Building) under R 285(2)(l)(A) and/or (B)
- Bead blaster under R 285(2)(l)(vi)(C)*
- Cold Cleaners under R 281 (2)(h)
- Touch-Up Paints under R 287(2)(b)*** or R285(2)(hh) for hand held aerosol cans
- Small coating projects (<200 gallon as applied, minus water/day) R 287 (2)(c) refer to FG287.
- Wash booth (open tanks in enclosed rooms) under R 285(2)(r)) **

***Note the stack for the bead blaster (SVOXIDECOLLECTOR) is reported to be 12ft high and 18-inches in diameter. The bead blaster was reported as an exempt unit in the ROP Renewal application received in 2021.**

****Referred to as the PII Etch Process, the Facility is in possession of correspondence dated May 14, 2000, confirming eligibility under the referenced exemption.**

*****Touch-up paints are reported to be done using "Preval" applicators. Per Rule 287(2)(b) they need to be no greater than 8 ounces each. Rule 285(2)(hh) exempts hand held aerosol cans from Rule 201 permitting.**

At the time of report preparation, the Facility indicated that they have not previously been maintaining records of the volume of coatings being applied as touch-up using preval applicators. They report that the prevals are filled at the appropriate coating line, and at the time of the inspection it is believed that the coating volume used has been documented as part of the use for the line for that shift. The Facility has indicated that they will be modifying procedures to capture the required information for reporting purposes.

REGULATORY

As previously indicated AAR operates under MI-ROP-B4197-2016C. A ROP renewal application for the Facility was received on March 21, 2021, The permit shield was issued on April 2, 2021.

AAR has been determined to have the potential to emit over 100 tons per year of the following criteria pollutants and is a major source of:

- Volatile Organic Compounds (VOCs) and
- Particulate Matter (PM)

In addition, the Staff Report indicates the facility has the potential to emit 10 tons per year or more of any single Hazardous Air Pollutant (HAP) or the potential to emit any combination of HAPS emissions greater than or equal to 25 tons per year. However, site inspection report dated April 2, 2015, indicated that the Facility has accepted production and/or operational limits to limit HAPs to below Major Source thresholds.

The following EUs are subject to Federal Standards:

EMISSION UNIT	40 CFR SUBPART	TITLE
EU500HPBOILER		

	Part 63, Subpart A and DDDDD	MACT for NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (BOILER MACT)
EU197LINE EU197LINENOCTRL EUCONTAINERLINE EUCONTNRNOCTRL EUBALSACORE EUSKINORRAIL EUCLEANUP	Part 63, Subpart A and MMMM	NESHAP for Surface Coating of Misc. Metal Parts and Products

In addition to the previously identified Federal regulations, the AAR Facility has multiple units subject to Compliance Assurance Monitoring (CAM) under 40 CFR Part 64. In general EUs subject to CAM consist of EUS with pre-control emissions of one or more criteria pollutants exceeding 100 tons. There are a limited number of exemptions available to the subpart. In the case of the AAR Facility, proper operation of the RTO under Subpart MMMM is considered presumptively acceptable monitoring in lieu of CAM. Which eliminates the CAM requirement for VOCs for process equipment identified in FGMACT. Information applicable for the AAR Facility is summarized below:

EU with pre control emissions > 100 tons	Applicable Contaminant	Presumptively acceptable monitoring condition in lieu of CAM
EU197LINE	VOC	Yes - 40 CFR Part 63, Subpart MMMM
EUCONTAINERLINE	VOC	Yes - 40 CFR Part 63, Subpart MMMM
EUBALSACORE	VOC	Yes - 40 CFR Part 63, Subpart MMMM
EUSKINONRAIL	VOC	Yes - 40 CFR Part 63, Subpart MMMM
EUCLEANUP	VOC	

		Yes - 40 CFR Part 63, Subpart MMMM
EUWOODROOM	PM	No
EUBALSACORE	PM	No

The two remaining EUs (EUWOODROOM and EUBALSACORE) are subject to CAM for PM emissions and have a CAM Plan (January 13, 2011) associated with them.

Permit History – The following table summarizes the permit history for the Facility.

Issued To:	Total No. of Permits issued	PTIs incorporated into ROP	Total Permit Application Voided
Brooks & Perkins, Inc.	one	None	NA
AAR Brooks & Perkins Corporation	13	1007-84 293-91 Rev.3	Eight
AAR Cadillac Manufacturing	two	934-93 261-00	One
AAR Mobility Systems	ten	163-07, B, C &D 4-09 183-17	None

***PTI 183-17 established EUCONTAINERLINE as a PTE for use of the AM2 Coatings containing Diglycidyl ether of bisphenol a, Michigan Air Toxic. RTO control would be required with the annual throughput AAR required for production of the AM2 Matts. The Facility reports this project never went into full scale production, that production was first article only which was a few matts. Both coatings for the AM2 Matting are less than or equal to 3.5 lbs VOC/gal.**

COMPLIANCE EVALUATION

Annual Emissions Reporting (MAERS) – The Facility is of record as having submitted MAERS in a timely manner in compliance with general permit requirements. At the time of report preparation, the most recent submittal was on March 16, 2022.

Reporting - Reporting requirements for ROP EUs and FGs all include annual and semiannual compliance reporting under SC VII.3 &2, respectively. As well as prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1). A review of MACES database

indicated that the Facility appears to be in general compliance with annual and semi-annual reporting requirements. No Rule 912 exceedances have been reported since January 2018.

Testing/Sampling - At the time of the June 15, 2022, site inspection, the Facility reported using manufacturers formulation data for VOC and HAP content to meet material limits, or to determine emission rates for materials used. Verification testing is addressed for respective EUs or FG later in this document.

Other Documents - Other documents required of the Facility include the following:

EMISSION UNIT	PERMIT CONDITION	DOCUMENT	MOST RECENT PLAN DATE
EU197LINE, EUCONTAINERLINE, EUBALSACORE, EUSKINORRAIL	SC III.10 (FGMACT)	SSMAP	SSMAP Rev.#8 - April 22, 2019
FGCOATINGS	SC III.4	MAP (RTO)	SSMAP Rev.#8 - April 22, 2019
FGPARTICULATES	SC IX.1	MAP	SSMAP Rev.#8 - April 22, 2019
FGPARTICULATES	SC III.5 IX.3	CAM Plan (Particulates)	January 13, 2011
FGCOATINGS	UNK	CAM Plan (RTO)	December 10, 2020
EU197LINE, EUCONTAINERLINE, EUBALSACORE, EUSKINORRAIL	SC III.9 (FGMACT)	Work Practices Plan	June 28, 2022*

*** Note document was preceded by February 18, 2008, SOP for HAPs and will be revised to meet the 2022 requirements.**

The referenced plans have been previously approved by AQD staff indicating that the plans meet any appropriate quality assurance/quality control activities required by permit. Compliance with the referenced documents was addressed in the site visit report.

The Facility makes use of daily handwritten log sheets, Manufacturer's formulation data and an Automated Chemical Information Management System (ACIMS) to comply with recordkeeping and monitoring requirements of the ROP. The facility reports that there is no PLC recordkeeping system. AAR is currently working with EGLE to better meet documentation requirements.

EUAIRSTRIPPER-

This EU is a packed scrubber tower used to strip VOCs from groundwater pumped from the aquifer beneath the plant. Installed in 1988, repairs were reported to have occurred during the 2019 calendar year. At that time, various piping was cleared and repaired, and the packing materials in the tower were replaced. PTIs associated with the EU are reported to be No. 1007-84.

Emission Limits – Compliance with emission limits associated with EUAIRSTRIPPER are based on an average for the calendar month the parameters reported rate for 2021 and 2022 to date were reported well below the emission limits summarized below ranges for 2021 are summarized below.

Pollutant	2021 emissions average per month	Emission Limit*
1,2 Dichloroethane (SC I.1)	0.0	3.69 mg/cubic meter
1,1,2,2, Tetrachloroethylene (SC I.2)	0.02 – 0.03 mg/cubic meter	2.58 mg/cubic meter
Trichloroethylene (SC I.3)	0.17 – 0.26 mg/cubic meter	15.8 mg/cubic meter

***Corrected to 70 degrees F and 29.92 inches HG**

Pollutant	2021 emission average per month	Emission Limit
VOCs (SC I.4)	2.0 E-7 to 1.37 E-5	0.19 pph

Emissions are determined based on influent and effluent water concentration for EUAIRSTRIPPER, and are calculated on a monthly basis (SC VI.1 & 2). Facility staff report that FiberTech is the consultant presently contracted to conduct the influent and effluent sampling required on a monthly basis.

Material Limits - No material limits exist for EUAIRSTRIPPER.

Process/Operational Restrictions and Design/Equipment Parameters – Neither type of restrictions exist for EUAIRSTRIPPER.

Testing/Sampling – Though SC VI.1 references pollutant concentrations in influent and effluent waters for EUAIRSTRIPPER. No Testing or Sampling conditions are present in the ROP template.

Facility staff report that FiberTech is the consultant presently contracted to conduct the influent and effluent sampling required on a monthly basis.

Monitoring/Recordkeeping - Compliance with emission limits is determined based on monitoring and recordkeeping conditions SC VI.1 which requires the permittee to monitor and record pollutants concentration in the water influent and effluent streams from the EU on a monthly basis. Discussions with Facility staff indicated that contracted staff collect the required data, which is submitted to onsite staff. Records provided for review onsite on July 20, 2022, confirmed that they met the referenced requirements.

Stack/Vent Restrictions – At the time of the June 15, 2022, site inspection exhaust gasses from EUAIRSTRIPPER were reported to discharge from a stack meeting the maximum exhaust diameter of 8-inches and Minimum height above ground level of 50-feet (SC VIII.1) No visible emissions were noted at the time of the inspection.

EU197LINENOCTRL

This EU consists of one dry filter paint booth with two manual applicators and one oven. The equipment is the same as EU197LINE but is operated differently as the EU is disconnected/bypassed from the RTO, and emissions exhaust through a separate bypass stack directly to the atmosphere.

Coating Line	Coating Contains PCBTF	VOC Content (lb VOC/gallon coating (minus water), as applied)
EU197LINENOCTRL	Yes	</= 2.8 (SC II.1)
EU197LINE	No	>2.8

The two manual applicators consist of high-volume low pressure (HVLP) spray guns.

The AQD April 2, 2015, site inspection report indicated that pallet ring coating activities were being conducted as exempt under Rule 287(2)(c) in the coating line. As previously noted, this activity was later permitted under PTI 163-07D.

PTIs reported to be associated with this EU include PTI 163-07D. This EU is subject to requirements under 40 CFR Part 63, Subpart MMMM the NESHAP for Surface Coating of Misc. Metal Parts and Products. This and other EUs onsite subject to the Subpart are part of FGMACT, and are required to comply with the FG conditions. Based on the "by-pass" status it would appear that operations of this EU would fall under the "with-out add-on controls" compliance option for compliance under the MACT.

At the time of the June 15, 2022, site inspection, the Facility was using the following coatings in EU197LINENOCTRL:

Coating	Reported VOC content (lb/gal minus water)	Reported HAP Content (lbs per gallon coating solids)	Contains PCBTF
NCP Zinc Coating	2.78	0.50	Yes

Records review on July 20, 2022, indicated that no other coating was used in EU197LINENOCTRL for the month of June 2022.

Emission Limits – Compliance with emission limits associated with EU197LINENOCTRL include 12-month rolling totals (tons/year) as calculated per calendar month. Data for 2020 and 2021 was evaluated, and are summarized below:

Pollutant	2020 12-Month rolling Total (TPY)	2021 12-Month rolling Total (TPY)	Limit (TPY)
VOCs	0.25	0.932	3.1 (SC I.1)
P-chlorobenzo trifluoride(PCBTF) (CAS # 98-56-6)	0.01	0.02	12.3 (SC I.2)

Emissions are determined based on volume of coating used, coating content and mass balance calculations, and are calculated on a monthly basis (SC VI.3 & 4)

Material Limits - EU197LINENOCTRL is limited to an instantaneous VOC content of ≤ 2.8 lb of VOC/gallon (minus water) as applied (SC II.1). A review of records identifies the following coatings as having been used in EU197LINENOCTRL for the 2021-2022 CY to date:

Coating	Reported VOC content (lb/gal minus water)
NCP Zinc Coating	2.78

Process/Operational Restrictions – The permittee is required to conduct the following activities in order to reduce air contaminants escaping to the outer atmosphere:

- All purge and cleanup activities are required to be performed within the EU spraybooth and during operation of the spray booth exhaust system. (SC III.4)

- The coating line spray booth and oven exhaust system shall bypass the RTO when applying coatings containing PCBTF (SC III.5)
- Dispose of spent filters in a manner that minimizes the release of air contaminants into the outer air (SC III.2)
- Capture all waste coatings, reducers, thinners and cleanup/purge solvents and store them in closed containers. (SC III.1)
- Keep all containers covered at all time except when operator access is necessary (SC III.3)
- Handle all VOC and/or HAP containing materials, including coatings, reducers, solvents and thinner in a manner that reduces fugitive emissions (SC III.3)
- Dispose of all waste coatings, reducers, thinners and purge and cleanup solvents in a manner in compliance with all applicable state and federal rules and regulations (SC III.1)

Observations made at the time of the June 15, 2022, site visit indicated that materials were kept covered, and that unused coatings, reducers, thinners and purge and cleanup solvents were being handled properly and in compliance with permit conditions. Waste materials were reported to be properly contained and disposed of by appropriate parties and in an appropriate manner. Only one coating with PCBTF is reported to be in use at the Facility, and the vents to the RTO are bypassed during those applications.

Design/Equipment Parameters – The permittee is required to have installed, maintained and operated in a satisfactory manner exhaust filters on EU197LINENOCTRL. (SC IV.1) Filters were noted to be in place, and a differential pressure documented in operator logs associated with the unit. This would appear to confirm that the filters were installed and being operated appropriately.

The permittee is also required to equip and maintain the EU with HVLP or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee will keep test caps available for pressure testing. (SC IV.1) The required applicator and test caps are reported present and in use.

Testing/Sampling – The VOC content of each coating (minus water) as applied and received shall be determined using Test Method 24. (SC V.1) Note that with prior written approval from the AQD District Supervisor, the permittee may determine the VOC content from the manufactures formulation data. (SC V.1). At the time of the June 15, 2022, site inspection, the Facility reports using manufacturers formulation data for VOC and HAP content in compliance with the ROP.

Monitoring/Recordkeeping -- Per the ROP, the permittee is required to maintain a current listing from the manufacturer of the chemical composition of each coating, reducer, thinner and purge and cleanup solvent, and the weight percent of each component. In compliance with the permit, the Facility makes use of manufacturers formulation data to show compliance (SC VI.2) In compliance with the permit, the records were available to the department upon request at the time of the inspection. These included a summary tables of coatings, reducers, thinners and purge and cleanup solvents and their compositions were made available at the time of the inspection.

Monthly records required for EU197LINENOCTRL for materials containing VOC (SC VI.3) and maintained by the Facility include:

- The identity of each coating and reducer.
- The VOC content (minus and with water) of each coating and reducer used as received and as applied.
- The daily usage rate of each coating and reducer as applied
- Daily hours of operation
- VOC mass emission calculations in tons per month, and 12-month rolling total as determined at the end of each calendar month.

Monthly records for EU197LINENOCTRL for materials containing PCBTF maintained by the Facility include (SC VI.4):

- Gallons (with water) of each material containing PCBTF used per month.
- Gallons (with water) of each material containing PCBTF reclaimed per month.
- The PCBTF content (with water) in lbs/gallon of each material used.
- PCBTF mass emission calculations determining the emission rates per calendar month and 12-month rolling time period as determined at the end of each calendar month.

Daily records are completed by operators and were observed at the time of the June 15, 2022. The daily and monthly records are kept by the Facility and consist of daily logs completed by operators, ACIMs data and resulting spreadsheets summarizing the required data. The indicated data was provided for review during records review on July 20, 2022. Records maintained appeared to be in general compliance with permit conditions SC VI.3 and VI.4.

Stack/Vent Restrictions – Unobstructed discharge vertically are to be at the Stack and/or vent construction requirements listed below:

ID	Associated with	Diameter (inches)	Height (ft above ground surface)
SV197BTHSTK	EU booth	34	60
requirement	NA	34 - Max	60
SV197OVNSTK	EU oven	8	60
requirement	NA	8 -- Max	60

EUCONTNRNOCTRL

This EU consists of one prime filter paint booth with two manual applicators, one dry filter paint booth with two manual applicators and one steam heated oven. The April 2, 2015, site inspection report referenced two dry filter paint booths, manual applicators and an associated oven. The equipment is contiguous and is considered a PTE.

The equipment is the same as EUCONTAINERLINE but is operated with emissions bypassing the RTO, and exhausted through a separate bypass stack. The unit must operate in bypass mode during coating operations using coating containing PCBTF, which cannot be vented through the RTO.

This EU uses coatings with a VOC content equal to or less than 3.5 lb/VOC per gallon of coating (minus water) as applied. The Facility reports using primarily tertiary butyl acetate (TBA) for cleanup.

PTIs reported to be associated with this EU include PTI 163-07C and 261-00.

This EU is subject to requirements under 40 CFR Part 63, Subpart MMMM the NESHAP for Surface Coating of Misc. Metal Parts and Products. This and other EUs onsite subject to the Subpart are part of FGMACT and are required to comply with the FG conditions. Note that as the EUCONTNRNOCTRL operates bypassing the RTO, compliance with the subpart would be shown either by the compliant materials option, or the "without add-on controls" option.

Emission Limits – Compliance with emission limits associated with EUCONTNRNOCTRL are determined per record keeping and monitoring requirements. Emission limits for the EU include not only daily limits (PCBTF SC I.4) or hourly limits (VOC SC I.1) , but also 12-month rolling totals, which are calculated on a monthly basis. The following tables summarize the highest emission rates reported for the 2021 and 2022 calendar year to date:

Pollutant	Emission Rate (pph)	Lbs VOC for Month	Reported Hrs of Operation for Month
VOC 2021	4.17 (August)	904.49	217
VOC 2022 (to date)	3.31 (January)	761.02	230
Limit	10.5 (SC I.1)	NA	NA

Records for 2021 indicate a total of 6 different coatings as well as methyl amyl ketone (MAK) and tertiary butyl acetate (TBA) were used in EUCONTNRNOCTRL.

Pollutant	12-Month Rolling Total (TPY)
VOC 2021	3.70
VOC 2022 (to date)	2.40
Limit	17.1 (SC I.2)

In compliance with permit conditions emission totals for SC I.2 & 3 shall be calculated monthly and reflect the 12-month rolling total emissions for the parameter of concern. Emissions are determined based on volume of coating used, coating content and mass balance calculations, and are calculated on a monthly basis (SC VI. 3 & 4). The Facility maintains spreadsheets summarizing emissions in general compliance with recordkeeping requirements. Based on discussions at the time of the site inspection no PCBTF is used in this booth, so emission limits SC I.3 &I.4 are not applicable at this time.

Material Limits - EUCONTNRNOCTRL is limited to an instantaneous VOC content of 3.5 lb of VOC/gallon (minus water) as applied (SC II.1). At the time of the June 15, 2022, site inspection this EU was being utilized to apply chemical resistant coating (Sherman Williams) to the products. Tan and green are reported to be the most frequently used coatings, consistent with operator handwritten logs for the month of June 2022. VOC content for both colors is below the material limit of SC II.1.

At the time of the June 15, 2022, site inspection, operator logs indicated that Sherwin Williams green or tan chemical resistant coatings (CARC) was applied for the first two weeks of the month of June 2022. Records reviewed as part of the July 20, 2022, record review indicated that in addition to the two referenced coatings, a black CARC coating were also applied in EUCONTNRNOCTRL for the month in volumes of less than a tenth of the volume of the others.

Coating	Color	Reported VOC content (lb/gal minus water)	Reported HAP Content (lb/gallon of coating solids)	Contains PCBTF
Sherwin Williams CARC	tan	3.13	None	No
Sherwin Williams CARC	green	2.98	0.05	No

Coatings reported to be applied in EUCONTNRNOCTRL for the 2021 and 2022 calendar year are summarized below:

Coating	Color	Reported VOC content (lb/gal minus water)	Contains PCBTF
Sherwin Williams CARC	tan	3.13	No
	green	2.98	No

Sherwin Williams CARC			
Sherwin Williams CARC	Black	2.82	No
Sherwin Williams CARC	White	2.79	No
High End Epoxy topcoat	white	2.58	No
Sherwin Williams MAK	NA	6.8**	No
Tertiary Butyl Acetate	NA	0*	No

***Tertiary Butyl Acetate has been identified by EPA as a VOC exempt product.**

****The MAK is reported to be an additive used during high humidity to prevent the paint from blistering, and that the quantity used per gallon of coating are such that the finished coating is below VOC content limits of 3.8 lb VOC/gallon.**

Process/Operational Restrictions – The permittee is required to bypass the RTO when applying coatings containing PCBTF (SC III.1). The Facility reports that the only PCBTF coating used onsite at this time is the zinc coating applied at EU197LINENOCTRL. Data reviewed appears to verify that any coating meeting the material limits bypass the RTO and are emitted to the outer atmosphere.

Design/Equipment Parameters – The permittee is also required to equip and maintain the EU with HVLP or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee will keep test caps available for pressure testing. (SC IV.1) The Facility is in compliance with the referenced conditions.

Testing/Sampling – The VOC content of each coating (minus water) as applied and received shall be determined using Test Method 24. (SC V.1) Note that with prior written approval from the AQD District Supervisor, the permittee may determine the VOC content from the manufactures formulation data. (SC V.1) The Facility reports using the manufacture formulation data to determine the VOC content of each coating applied and received. This is consistent with previous site inspection reports prepared for the facility, indicating prior District approval.

Monitoring/Recordkeeping -- Per the ROP, the permittee is required to maintain a current listing from the manufacturer of the chemical composition of each coating, reducer, thinner and purge cleanup solvent, and the weight percent of each component. (SC VI.1) In compliance with the permit, the Facility makes use of manufacturer formulation data to determine VOC content for

appropriate materials and maintains a listing to meet requirements of SC VI.1 and show compliance with material limits (SC II.1).

In compliance with the permit, records were available to the department upon request, and were reviewed on July 20, 2022. Monthly records required and maintained in compliance with permit conditions for EUCONTNRNOCTRL for materials containing VOC (SC VI.2) included:

- The identity of each coating and reducer.
- The VOC content (minus and with water) of each coating and reducer used as received and as applied.
- The daily usage rate of each coating and reducer as applied
- Daily hours of operation
- Daily VOC emission calculations in a format acceptable to the AQD District Supervisor to determine daily average hourly emission rates (lbs/hr) for EUCONTNRNOCNTRL,
- VOC mass emission calculations in tons per month, and 12-month rolling total as determined at the end of each calendar month.

As previously reported daily records are collected in the form of daily operator logs. Coating IDs, VOC content, and emission calculations are maintained by the Facility using the ACIMS system as well as spreadsheets, which are readily available upon request. Recordkeeping was found to meet permit requirements for EUCONTNRNOCTRL.

Monthly records for EUCONTNRNOCTRL for materials containing PCBTF (SC VI.3):

- Gallons (with water) of each material containing PCBTF used per day.
- Gallons (with water) of each material containing PCBTF reclaimed per day.
- The PCBTF content (with water) in lbs/gallon of each material used.
- PCBTF mass emission calculations determining the emission rates in lbs/calendar day, in tons per calendar month and 12-month rolling time period as determined at the end of each calendar month.

As previously noted, the Facility is not using this coating line for coatings containing PCBTF, therefore the above referenced permit condition is not applicable at this time.

<u>Reporting</u> – Reporting requirements include semi-annual (SC VII.2) and annual (SC VII.3) compliance reporting as well a prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1) A review of MACES would appear to indicate that required semi-annual, annual and other reporting requirements are of record as having been complete and submitted in a timely manner, in compliance with the ROP.

<u>Stack/Vent Restrictions</u> – Unobstructed discharge vertically are to be at the Stack and/or vent construction requirements listed below:

ID	Associated with	Diameter (inches)	Height (ft above ground surface)
SVBOOTHSTACK	Paint booth	24	60

requirement	NA	24 - Max	60
SVOVENSTACK	oven	8	60
requirement	NA	8 - Max	60

Construction details reported by the Facility are in general compliance with the permit conditions.

EUCLEANUP

This EU consists of all cleanup and purge activities performed in various emission units. With respect to pollution control devices, any EU which vents to RTO shall use the RTO as the associated control device. EU197LINENOCTRL and EUCONTNRNOCTRL vent directly to the outside atmosphere and do not have associated controls.

PTIs reported to be associated with this EU include PTI 163-07C and 261-00.

This EU is subject to requirements under 40 CFR Part 63, Subpart MMMM the NESHAP for Surface Coating of Misc. Metal Parts and Products. This and other EUs onsite subject to the Subpart are part of FGMACT and are required to comply with the FG conditions. The respective solvents, etc. and the compliance option for the subpart selected will be linked to the coating line and whether or not it operates with a control device.

Emission Limits – Compliance with emission limits associated with EUCLEANUP as calculated include the following pollutants:

- Acetone – 1.7 tpy (SC I.1)

Totals for SCI.1 are calculated monthly and reflect the 12-month rolling total emissions for the parameter of concern. Emissions are determined based on volume of each cleanup solvent (recorded daily) and mass balance calculations and are calculated on a monthly basis (SC VI. 2). Acetone emissions reported for 2021 calendar year were 1.095 TPY.

VOC emissions for 2021 were reported to be limited to the FM47 thinner and totaled 30.16 lb/calendar year (0.02 ton/year).

Material Limits - No material limits are associated with EUCLEANUP.

Process/Operational Restrictions – The permittee is required to conduct all purge and cleanup activities within an operating spray booth, the emissions being controlled by the RTO control system except for cleanup activities associated with EU197LINENOCTRL and EUCONTNRNOCTRL (SC III.1). Emissions from cleanup activities associated with EU197LINENOCTRL and EUCONTNRNOCTRL shall bypass the RTO control system (SC IV.2).

No cleanup activities were ongoing at the time of the June 15, 2022, site inspection. Operators' daily logs report volumes of cleanup solvent used, and indicate whether the coating line was

bypassing the RTO at the time of cleanup. Facility representatives indicated that cleanup is conducted in compliance with the permit conditions.

Design/Equipment Parameters – In compliance with the permit, with the exception of EU197LINENOCTRL and EUCONTNRNOCTRL the permittee operates EUCLEANUP only when the RTO is installed, maintained and operated in a satisfactory manner (SC IV.1). The RTO is installed, and instantaneous readings appear to indicate that the unit is operating in compliance with the permit requirements.

The permittee is also required to equip and maintain the EU with HVLP or comparable technology with equivalent transfer efficiency. For HVLP applicators, the permittee will keep test caps available for pressure testing. (SC IV.1) In compliance with permit conditions, all coating lines are equipped with HVLP or a comparable technology, and test caps are available for testing.

Testing/Sampling – No Testing requirements are associated with EUCLEANUP.

Monitoring/Recordkeeping -- Per the ROP, the permittee is required to maintain a current listing from the manufacturer of the chemical composition of each cleanup solvent, and the weight percent of each component. (SC VI.1) In compliance with the permit, the Facility makes use of multiple cleanup solvents. Purge and/or cleanup solvents associated with the Facility coating lines are summarized below:

EU	Solvent Used	VOC Content LB/Gallon
EU197LINE*	Acetone	exempt
EU197LINENOCTRL	Acetone	exempt
EUCONTAINERLINE	TBA	exempt
EUCONTNRNOCTRL	TBA	exempt
EUSKINORRAIL	FM47 Thinner	7.3
EUBALSACORE	0FM47 Thinner	7.3

***Acetone is used when the line is coating BR127. TBA is used for CARC coating.**

In compliance with the permit, records were available to the department (upon request) at the time of the inspection and summarize the chemical composition and weight percent of the components. Records required to be maintained by the Facility include the following monthly records for EUCLEANUP (SC VI.2):

- The density of the acetone cleanup and purge solvent.

- The volume of acetone cleanup and purge solvent used and reclaimed.
- Daily hours of operation for EUCLEANUP
- Acetone emission calculations in a format acceptable to the AQD District Supervisor for emissions associated with both RTO controlled and uncontrolled situations.
- Acetone mass emission calculations in tons per month, and 12-month rolling total as determined at the end of each calendar month.

Usage of purge and cleanup solvents for the various coating lines are documented on daily operators logs. Records are compiled, and monthly and 12-month rolling totals (if applicable) generated. Records are readily available for review, and were reviewed on July 20, 2022. Note: the facility does not keep records of reclaim quantities so emissions determined as mass balance are higher than actual.

Reporting – Reporting requirements include semi-annual (SC VII.2) and annual (SC VII.3) compliance reporting as well a prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1) A review of MACES would appear to indicate that required semi-annual, annual and other reporting requirements are of record as having been complete and submitted in a timely manner, in compliance with the ROP.

Stack/Vent Restrictions – No stack or vent construction requirements are associated with EUCLEANUP.

EUGRIND/PAINT

This EU reflects grind and paint operations in the lakeside building, which rebuilds pallets and containers. Emissions released are reported to be released into the in-plant environment. It does not belong to a flexible group, nor does it have any associated control devices.

No PTIs are associated with the referenced emission unit. The EU is reported to have been installed in 1966 and is reported by the Facility to be grandfathered for fugitives.

The description of EUGRIND/PAINT in the ROP states that the emission sources for existing metallic surface coating line(s) are exempt from the emission limits of R 621(1) (Emission of VOCs from existing coating lines) pursuant to exemption R 621(10). but that EUGRIND/PAINT is subject to emission limits specified in the referenced rule/exemption and specific recordkeeping requirements. The limits under the R 621(10) exemption have been incorporated into the ROP.

Emission Limits – VOC emissions associated with this EU consist of those associated with FM 47 adhesives and thinner. Totals for SC I.1 and 2 are calculated monthly and reflect the total monthly and 12-month rolling total emissions for the parameter of concern. Values reported below reflect the highest reported concentration for the 2021 calendar year (May 2021).

Coating / Thinner	VOC (lbs/month)	VOC content (lb VOC/Gallon)
Adhesive coating	329.07	5.6

thinner	206.60	7.3
Limit	2000 (SC I.1)	NA

Emissions are determined based on volume of each adhesive and cleanup solvent and mass balance calculations, and are calculated on a monthly basis (SC VI. 2). Annual emissions for 2021 were reported to be 2.36 tons per year. Well below the 10.0 tons per year limit (SC I.2).

Material Limits - No material limits are associated with EUGRIND/PAINT.

Process/Operational Restrictions – No process or operational restrictions exist for this EU.

Design/Equipment Parameters – No design or equipment operational parameters are required for this EU.

Testing/Sampling – The permittee is required to determine VOC content of each coating (minus water) as applied using Test Method 24 (SC V.1). Alternatively, with prior written approval from the AQD District Supervisor, the permittee may determine the VOC content from the manufactures formulation data. (SC V.1) Based on review of previous inspection reports it appears that use of manufacturers formulation data to determine VOC content has been accepted to show compliance.

Monitoring/Recordkeeping -- Per the ROP, the permittee is required to maintain separate records of the following (SC VI.1) for EUGRIND/PAINT:

- The identity of each coating and reducer used.
- The VOC content of each coating and reducer used (minus water and with water) as received and as applied.
- The monthly usage rate of each coating and reducer as applied.
- VOC emission calculations in a format acceptable to the AQD District Supervisor to determine a monthly emission rate in lbs/month and in tons per year for the EU.

Consistent with other EUs, coatings, reducers and any additive usage are recorded by operators on logsheets, documenting the identity and volume of each material used. Material content is obtained from manufacturer data sheets, and are used to determine monthly and annual emission rates in compliance with the above referenced permit conditions. The data was verified during records reviews on July 20, 2022.

Reporting – Reporting requirements include semi-annual (SC VII.2) and annual (SC VII.3) compliance reporting as well a prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1) A review of MACES would appear to indicate that required semi-annual, annual and other reporting requirements are of record as having been complete and submitted in a timely manner, in compliance with the ROP.

Stack/Vent Restrictions – No stack or vent construction requirements are associated with EUGRIND/PAINT.

EU500HPBOILER

This EU consists of a Natural Gas (NG) fired boiler for building heat. The unit was installed in 2007 and is rated at 20.9 MMBtu/Hr heat input. Based on an installation date prior to June 4, 2010, the EU is considered existing. No pollution control equipment is associated with the EU.

No emission limits, material limits, design/equipment parameters, testing/sampling conditions, or stack/vent restrictions exist for EU500HPBOLER. Except for semiannual (SC VII.2) and annual (SC VII.3) reporting requirements, all other requirements contain UARs for requirements under 40 CFR part 63, Subpart DDDDD (BOILER MACT).

No emission or material limits are associated with EU500HPBOILER.

Process/Operational Restrictions – SC III.1 requires the permittee to operate and maintain EU500HPBOILER as well as any pollution control devices and/or monitoring equipment in a manner consistent with safety, and good practices for minimizing emissions. During the June 15, 2022, site visit, District staff noted that the unit was in good condition and appeared to be properly maintained. No pollution control device is associated with this piece of equipment.

SC III.2 allows for EPA approval of alternative work practices. No records of a request for or approval of alternative work practices were noted in the electronic files.

SC III.3 and III.4 requires the permittee to conduct performance tune ups annually, with no more than 13 months between tune ups. The most recent tune ups were reported to have been conducted on January 8, 2021, and January 20, 2022.

Design/Equipment Parameters - No design or equipment parameter restrictions/requirements are associated with EU500HPBOILER.

Testing/Sampling – No testing or sampling requirements are associated with EU500HPBOILER.

Monitoring/ Recordkeeping – Records are required to be kept in a form suitable and readily available for expeditious review, per 40 CFR 63.7560(a) (SC VI.2). Records identified in the ROP and maintained by the Facility onsite and include:

- All notifications and reports submitted to comply with 40 CFR Part 63, Subpart DDDDD (SC.1)
- Records of the date of each occurrence, measurement, maintenance, corrective action, report or record for a minimum of 5 years onsite (SC.3)
- Copies of each boiler tune up report (SC.4) which at minimum must contain:
  - The CO concentration in the effluent stream in part per million by volume and the O2 in volume percent, measured at high fire or typical operating load before and after the tune up.
  - Description of any corrective actions taken as part of the tune up.

The Facility maintains copies of the required records onsite, in compliance with permit conditions. Records were verified on July 20, 2022.

Reporting – Reporting requirements include semi-annual (SC VII.2) and annual (SC VII.3) compliance reporting as well a prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1) A review of MACES would appear to indicate that required semi-annual, annual and other reporting requirements are of record as having been complete and submitted in a timely manner, in compliance with the ROP.

In addition to the above referenced reports, the permittee is required to submit boiler tune up reports to the AQD upon request (SC VII.4) as well as submit annual boiler tune-up compliance reports. (SC VII.5, 6 and 7). Available records indicate that the most recent annual boiler tune-up reports for the EU were received on March 15, 2021 and on February 1, 2022.

Stack/Vent Restrictions – No restrictions exist for EU500HPBOILER. The Facility reports that the EU stack is a 24-inch diameter stack to a height of 20 feet above ground level.

Other Requirements – No other restrictions exist for EU500HPBOILER.

FGCOATINGS

This Flexible group includes all coating and cleanup processes that utilize the RTO as a pollution control device (EU197LINE, EUCONTAINERLINE, EUBALSACORE, EUSKINONRAIL and EUCLEANUP). EU197LINENOCTRL, EUCONTNRNOCTRL, any exempt coating activities under Rule 287(2)(c) and any associated purge and cleanup activities associated with the lines are not part of this FG.

In addition to the RTO, the EUs in FGCOATINGS make use of fabric filters. The Facility reported the use of 13 different coatings, additives, and/or cleaners source wide.

Emission Limits – VOC limits of 122.3 TPY (12-month rolling time period as determined at the end of each calendar month) have been determined for FGCOATINGS (SC I.1). A review of records indicate the following 12-month rolling total VOC emissions for 2021 – 2022 (determined monthly) to date:

Emission Unit/Flexible Group	VOC Emissions 12-Month Rolling Total (TPY)
FGCOATINGS	0.54 – 0.67
Limit	122.3 (SC I.1)

In addition, EUCONTAINERLINE is limited to both a 12-month rolling total for VOCs (SC I.2) and for Diglycidyl ether of bisphenol a (SC I.3). As previously indicated this later parameter was a constituent identified in a new product line (Matts) that has not went into production. Available records indicate that the associated coating has not been in use since 2019 so requirements associated with it are not applicable at the time of the inspection.

VOC emissions reported for EUCONTAINERLINE for 2021 were reported to be 0.0 lbs. The line was reported to have been operated in bypass of the RTO since 2019. Coatings used meet requirements to be applied under EUCONTNRNOCNTRL.

Material Limits – No material limits exist for FGCOATINGS.

Process/Operational Restrictions- SC III.1 and 2 require the permittee to capture and dispose of waste materials including, but not limited to:

- Waste paints and coatings,

- Thinners, reducers and purge/cleanup solvents
- Spent filters

In compliance with permit conditions, captured materials are stored in closed containers except when operator access is necessary (SC III.3) and is conducted in such a way that generation of fugitive emissions is minimized (SC III.2 and III.3) Disposal is reported to be in an acceptable manner, and in compliance with all applicable state rules and federal regulations (SC III.1). Appropriate disposal contracted to an appropriate a third party. The Facility does not keep track of reclaim quantities.

SC III.4 requires a Malfunction Abatement Plan (MAP) for satisfactory operation of the RTO. The referenced document is part of the Facilities Startup, Shutdown and Malfunction Abatement Plan (SSMAP) the most recent of which is identified as revision #8 (dated April 22, 2019), and was submitted as part of the March 21, 2021, ROP Renewal Package. The referenced 2019 SSMAP focuses on RTO operation under the malfunction and start-up shut-down conditions, and specifies a minimum operating temperature of 1400 degrees F. The April 2, 2015, site inspection report identified a previous version dated September 10, 2014.

<u>Design/Equipment Parameters</u> – Equipment operational requirements include the following general requirements for each coating line in the FG:

- Installation of appropriate exhaust filters, (SC IV.1)
- Installation of a differential pressure gauge with a visual or audible alarm on each dry filter system and maintain the gauges in proper operating condition (SC IV.1)
- Each spray booth in FGCOATINGS will be equipped with HVLP applicators or comparable technology with an equivalent transfer efficiency (SC IV.2)
- Maintain test caps for HVLP applicators (SC IV.2)

Per observations and Facility staff verification, all of the above requirements have been met, and the Facility is operating in general compliance of the requirements.

- The permittee shall install calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the RTO combustion chamber to monitor and record temp on a continuous basis during operation of FGCOATINGS (SC IV.5)

AQD district staff observed the continuous temperature monitor and chart recorder associated with the RTO. RTO temperatures observed at the time of the June 15, 2022, site inspection were above 1500 degrees F (1529 degrees F on instantaneous monitor). Should the temperature drop below preset operating ranges, an audio/visual alarm will notify staff of the situation.

- EUCONTAINERLINE will not be operated unless the RTO is installed, maintained in a satisfactory manner, in which a minimum VOC capture efficiency of 96 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight) and a minimum temperature of 1400 degrees Fahrenheit and a minimum retention time of 0.05 seconds is achieved. (SC IV.3)
- EU197LINE, EUBALSACORE and/or EUSKINONRAIL will not be operated unless the RTO is installed, maintained and operated in a satisfactory manner, in which the RTO meets a minimum VOC capture efficiency of 90 percent (by weight), a minimum VOC destruction

efficiency of 95 % (by weight) and maintains a minimum temperature of 1400 degrees Fahrenheit and a minimum retention time of 0.5 seconds. (SC IV.4)

Facility staff confirmed that the RTO has the required minimum retention time of 0.05 seconds. Minimum VOC capture efficiencies and destruction efficiencies are determined by stack testing, the most recent test activities were conducted on October 19-22, 2021. The results of which are summarized below.

<u>Testing/Sampling</u> – The following testing/sampling requirements are included in the ROP:

- Verification by testing at the owner's expense every 5 years of the VOC capture efficiency across the EUCONTAINERLINE (SC V.2) Verification testing for EUCONTAINERLINE is summarized below:

Test Date	VOC Capture Efficiency (% by weight)	RTO VOC Destruction Efficiency (% by weight)	Operating Temp (3-hour average)	Min. Differential Pressure in Spray Booth
August 22, 2018	100%	95.8%	1453 degrees F	-0.040 Inches H2O
LIMIT (SC IV.3)	96 (SC V.2)	95	1400	NA

PTI 183-17 like the ROP required testing every 5 years, 5 years from the 2018 permit issuance would be in 2023. Note that in discussions with the Facility, it was indicated that the testing was just for "MATTS" production. However, it was pointed out by AQD Staff that the permit condition did not contain that stipulation. The change would require a permit modification.

- Verification by testing at the owner's expense every 5 years of the VOC capture efficiency across the EU197LINE, EUBALSACORE and/or EUSKINORRAIL (SC V.3)

Test Date	Coating Line	VOC Capture Efficiency (% by weight) (SC V.3)	Differential Pressure (inches of H2O)	Oven Temp
October 19-22, 2021	EU197LINE	95	0.115	247 - 252
October 19-22, 2021	EUBALSACORE	100	0.020	NA

October 19 -22, 2021	EUSKINORRAIL	100	0.020	NA
LIMIT (SC IV.4)	NA	90	NA	NA

Most recent testing was conducted on October 19-22, 2021, by Impact Compliance & Testing per August 17, 2021, per test plan approved on October 13, 2021. Note that PTI 183-17 like the ROP required testing every 5 years. Five years from the 2018 permit issuance required testing by 2023. So it would appear that the 2021 testing was completed within the 5 year window. No prior testing results was readily available.

- Verification by testing at the owner's expense before September 2, 2018, and at least every 5 years thereafter of the RTO's VOC destruction efficiency for FGCOATINGS (SC V.4)

Test Date	Coating Line	VOC Destruction Efficiency (% by weight) (SC V.4)
February 18, 2014*	FGCOATINGS	96.3
August 22, 2018	FGCOATINGS	95.8
LIMIT (SC IV.4)	NA	95

***Note that the testing referenced was the third attempt on the part of the facility to meet the 95% destruction efficiency. Previous testing conducted on August 21 & 22, 2013, resulted in an average destruction efficiency of 89.7%, supplemental repairs and testing the week of February 10, 2014, resulted in an average destruction efficiency above the prior test, but still below the required 95%. The compliance issues were dealt with at that time. Successful testing was conducted on February 18, 2014.**

Note that verification of RTO destruction efficiency was not completed as part of the August 2021 testing activities. RTO verification testing is required on or before August 22, 2023, under the present ROP.

- Submittal of proposed test plan protocols a minimum of 30-days prior to testing, and submittal of a complete report of test results no greater than 60 days from completion of test activities (SC V.2,3 and 4).

District records indicate that test protocols and final test reports for the most recent testing events were submitted in a timely manner, and in compliance with permit requirements.

Monitoring/Recordkeeping- Requirements for FGCOATING under this portion of the ROP requires that the permittee maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each compound (SC VI.2). As previously indicated that Facility utilizes manufacturer formulation data to determine VOC and other content for coatings onsite.

The permittee keeps the following information on a calendar month basis for FGCOATING:

- Gallons (with water) of each paint, coating, thinner reducer, pure and cleanup solvent etc. used and reclaimed (SC VI.3a)
- VOC content (with water) of each material as applied (SC VI.3b).
- VOC mass emission calculations determining the monthly emission rate in ton/month. (SC VI.3c)
- VOC mass emission calculations determining the 12-month rolling total as determined at the end of each calendar month (SC VI.3d)

As previously indicated, coating line operators complete daily log sheets documenting usage, operating hours, etc. The Facility takes the data and with the manufacturer's formulation data conducts mass balance emissions calculations for the Facility in compliance with the permit conditions. Data reviewed as part of the July 20, 2022; data review showed the Facility in compliance with the referenced conditions.

The permittee is also required under the ROP to keep the following information on a calendar month basis for EUCONTAINERLINE:

- Gallons (with water) of each diglycidyl ether of bisphenol a material used and where applicable reclaimed (SC VI.4a and b)
- Diglycidyl ether of bisphenol a content (with water) in lbs/gallon of each material as applied (SC VI.4c).
- Diglycidyl ether of bisphenol a mass emission calculations determining the monthly emission rate in ton/month. (SC VI.4d)
- Diglycidyl ether of bisphenol a mass emission calculations determining the 12-month rolling total as determined at the end of each calendar month (SC VI.4e)

The Facility reports that coatings using diglycidyl ether of bisphenol a were used in a limited basis for a proposed product line that after the first run has not been produced again. Therefore, the above referenced conditions (SC VI.4) are not applicable at this time for FGCOATING.

Operator log sheets documenting differential pressure across each dry filter system are completed per shift in compliance with the permit conditions. In the case of PTEs, operators are required to notify appropriate personnel should the differential pressure drop below 0.007 inches H2O (Method 204). In addition, the facility indicated that there are alarms to notify operators when the differential pressure exceeds values set at the time of the last capture efficiency testing.

The RTO is equipped with an instantaneous digital monitor and a chart recorder. The units at the time of the June 15, 2022, were noted to be in compliance with permit conditions. Instantaneous temperature readings on that date were reported to be 1529 degrees F. The chart recorder showed a continuous temperature just above 1500 degrees F. Well above the 1400 degrees F

required for compliance of this and other permit conditions associated with the RTO operating temp. The Facility reports having an audio/visual alarm to meet permit conditions.

Reporting - Reporting requirements include semi-annual (SC VII.2) and annual (SC VII.3) compliance reporting as well a prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1) A review of MACES would appear to indicate that required semi-annual, annual and other reporting requirements are of record as having been complete and submitted in a timely manner, in compliance with the ROP.

Stack/Vent Restrictions – Under SVIII.1 the RTO stack is restricted to a maximum diameter of 65.25 inches and a minimum height above ground of 60.0 feet. The exhaust emissions shall be discharged unobstructed vertically upwards. Records provided by the Facility reported stack/vent dimensions in compliance the requirements.

Other Requirements – SC IX.1 is a high-level citation for 40 CFR Part 63, Subpart MMMM for surface coating of miscellaneous metal parts and products by the initial compliance date. Compliance reports fall under this high-level citation, and appear to be submitted in compliance with the Subpart requirements.

SC IX.2 requires labeling of each emission unit within 30 days of the issuance of the PTI. During the June 15, 2022, site inspection AQD District staff noted labels on coating equipment in compliance with the permit condition.

SC IX.3 requires the permittee to initiate the MAP if the temperature of the RTO drops below 1400 degrees F. A review of the 2021 annual certification reporting indicated that there were 15 RTO excursions, in which the temperature dropped below 1400 degrees. Based on documentation provided as part of the July 20, 2022, records review, the unit was taken offline, and appropriate inspection and repairs conducted. In addition, the Facility conducts regular maintenance activities to reduce malfunction occurrences.

FGMACT –

This FG consists of requirements under 40 CFR Part 63 Subpart MMMM (Surface Coatings of Miscellaneous Metal Parts and Products) to minimize HAPs. Affected sources under the MACT include coating lines processes using greater than 250 gallon per year of coating with HAP. It should be noted that EUCONTAINERLINE is reported to use less than 250-gallons per year, due to it's operation in bypass. Compliance with the Subpart for existing sources is January 2, 2007. The RTO is identified as the pollution control device for the FG.

Existing sources are those who commenced construction or reconstruction before August 13, 2002. The Facility confirms that the coating lines in this FG are all considered existing sources.

MACT Compliance Options - Seven EUs make up this FG (EU197LINE, EU197LINENOCTRL, EUCONTAINERLINE, EUCONTNRNOCTRL, EUCLEANUP, EUBALSACORE and EUSKINORRAIL). Based on information evaluated, it appears that compliance with emission limits under 63.3890 (SC I.1) may be met in one of three different options (SC III.4 & III.5). These options include (SC III.5):

- Emission rate without add–on control
- Emission rate with add-on control, and

- Compliant materials

SC III.4 also allows for different compliance options being used for different coating operations or at different times on the same coating line, but requires reporting should a compliance option being used be changed, then the change must be documented per 63.3890(c) and reported in the next semi-annual compliance report.

A review of requirements associated with the three options, indicates that emission rates without and with add-on controls are required to meet the same 2.6 lb organic HAP/ gallon of coating solids limit (SC I.1), however those coating lines operating in compliance with add-on control option are also required to comply with Table 1 operating requirements of Subpart MMMM which include:

- monitoring of three-hour block average temperatures for the RTO
- monitoring of airflow direction, facial velocity or differential pressure drop for emission capture system that is a PTE (EUCONTAINERLINE, EUCONTNRNOCTRL, EUSKINORRAIL, EUBALSACORE)

Note that for the above referenced PTEs, EUCONTNRNOCTRL though set up for a PTE is by definition of the EU not controlled by the RTO, and would not be required to meet these requirements.

- Monitoring of volumetric flow data or duct static pressure for each duct between a capture device and the add on control device inlet and determination of three-hour block averages for emission capture systems that are not PTEs (EU197LINE, EU197LINENOCTRL)

Coating lines showing compliance "without add-on control" option appear to be required to meet the 2.6 lb organic HAP/gallon of coating solids but do not have to meet any Table 1 operating requirements.

Compliant materials option limits the organic HAP coating content, but restricts thinner, additives and cleanup materials to no organic HAPS.

The most recent compliance certification submitted by the Facility for the Subpart dated March 15, 2022, indicated that for the 2021 calendar year, the Facility utilized the emission rate with add -on control option. Discussions with Facility Staff at the time of the June 15, 2022, site inspection indicated that no change in compliance option has been made for the 2022 calendar year to date.

In preparation of this document, AQD District Staff noted that the April 2, 2015, site inspection report had indicated that the Facility uses both the emission rates with and without add-on control options to show compliance with organic HAP emission limits. AQD District Staff after reviewing requirements under Subpart MMMM and the ROP, determined that the Facility does in fact utilize both options to show compliance with SCI.1 emission limits. In subsequent discussions with Facility staff it was determined that the MACT compliance report dated March 15, 2022 and summarizing the 2021 calendar year may have been incorrect in that they only identified the emission rate with add-on control option as being used. Correct reporting would indicate the following:

- Using emission rates with add-on control
  - EU197LINE
  - EUCONTAINERLINE (not operated since 2019)
  - EUBALSACORE, and
  - EUSKINORRAIL
- Using emission rates without add-on control
  - EU197LINENOCTRL
  - EUCONTNRNOCTRL, and
  - EUCLEANUP

Organic HAP emission rates (12-month rolling total) reported in the March 15, 2022, Subpart MMMM compliance report indicated that combined total organic HAP emissions ranged from 0.59 to 0.66 lbs organic HAP/ gallon coating solids/12-month rolling total, and well below the 2.6 lb/gallon of coating solids limit (SC I.1). More appropriate reporting would identify organic HAP 12-month rolling totals for each compliance option utilized. Discussions with Facility staff indicated that the Facility has corrected the document and will and resubmit the document.

SC III.5 indicates that in addition to the two options for compliance when operating with and without controls, that the Facility may also be compliant with SCI.1 by using the compliant material options outlined in 40 CFR Part 60, Subpart MMMM. As the Compliant Materials Option for compliance is not being utilized by the Facility, the following conditions are not applicable at this time: SC III.3, VI.1 (d), VI.3, VII.4.

Emission Limits – Emission limits associated with the FG are limited to a 12-month rolling total of 2.6 lbs of organic HAPs per gallon of coating solids used for existing general use coatings (SC I.1). SC III.12 requires that coating lines with add-on control devices be operated in compliance with work practice standards identified in SC III.7 (which specifies materials to be included in, and factors for mass balance calculations determining emission rates).

Organic HAP emissions (12-month rolling totals, calculated monthly) reported for period of January 2021 through May 2022 are presented below, and show compliance with the SC I.1 and III.1.

Coating Line	Organic HAP 12-Month Rolling Total (lb/gallon coating solids)
EU197LINENOCTRL	0.50 – 0.93
EUCONTNRNOCTRL	0.02 - 0.04
EU197LINE	0.59 – 0.66
EUBALSACORE	

EUSKINORRAIL	
EUCLEANUP	0.00
LIMIT	2.6 (SC I.1)

HAPs emissions reported for 2022 to date were reported to be:

Coating Line	Organic HAP (lbs)
EUBALSACORE	177.30
EUSKINORRAIL	940.20
EUCLEANUP	385.35
FGCOATINGS	1190.98

Material Limits -- No material limits exist for the FG.

Process/Operational Restrictions – The FG contains EUs that operate both with and without add on controls (i.e. the RTO). SC III.1 requires EUs in FGMACT without add-on controls to meet emission limits organic HAPs specified in SC I.1. SC III.2 and III.11 require EUs in FGMACT with add-on controls to also meet the HAPs emission limit in SC I.1 (except under startup shutdown and malfunction). Data reviewed and summarized above indicates that the Facility is in compliance with the referenced limit.

SC III.6, III.7 and III.12 require that compliance with the organic HAPs limits in SC I.1 be determined/calculated monthly, and records reviewed show that ACIMS does determine monthly totals. The Facility reports compliance with SC III.4 which requires inclusion of all coatings, thinners and/or other additives and cleaning materials when determining the organic HAP emission rate. Data review conducted on July 20, 2022, confirmed that records showed compliance with the referenced conditions.

SC III.4 also allows for use of different compliance options being used for different coating operations or at different times on the same coating line, but requires reporting should a compliance option being used be changed, then the change must be documented per 63.3890(c) and reported in the next semi-annual compliance report. As previously indicated, the Facility uses both with and without control operations, documentation by the Facility is sufficient to determine when those changes are made.

Permittees showing compliance using the "with add on controls" option (EU197LINE, EUCONTAINERLINE, EUBALSACORE and EUSKINORRAIL) are required to be in compliance with SC

III.8 which per Table 1 of Subpart MMMM requires any coating operation(s) to establish the following operating limits during performance testing:

- The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established during the initial performance test.

A review of data from the last two RTO destruction efficiency test events reported the following:

Test Date	RTO Destruction Efficiency (%)	3-Hour Block Temp Average (degrees F)
August 22, 2018	95.8	1453
February 18, 2014	96.3	UNK
LIMITS	95	NA

SC III.13 requires coating lines operating and using the emission rate with add-on control option (except during monitoring malfunctions or associated repairs, etal) to operate the RTO temperature monitor system. At the time of the June 15, 2022, site inspection, the system was in operation and instaneous temperatures reported were 1529 degrees F and above the of 1400 - 1500 degree F range identified as the normal operating range in the SSMAP. The chart recorder showed a consist operating temperature above 1450 degrees F for a period of over three hours in compliance with the temperature threshold set during verification testing and in compliance with permit conditions. Note that no PLC unit exists to calculate 3-hour block averages. Compliance has been shown with chart recorder historically.

Discussions with Facility staff regarding the elevated temperature indicated that multiple thermocouples are in operation, and that the average of the thermocouples is reflected on the chart recorder, which is set for a minimum operating temp of 1453 degrees F, the alarm is set for 1450 degrees F indicating that an auto shutdown will occur.

- SC III.8 For emission capture systems that are PTEs (EUCONTAINERLINE, EUSKINORRAIL and EUBALSACORE) the direction of the air flow at all times must be into the enclosure and either;
  - The average facial velocity of the air through all-natural draft openings in the enclosure must be at least 200 feet per minute or
  - The pressure drops across the enclosure must be at least 0.007-inch H2O as established in method 204.

The Facility shows compliance with the above referenced SC III.8 requirements by continuously monitoring and recording once per operating shift the pressure drop across the enclosure on daily operating logs. At the time of the June 15, 2022, site inspection no PLC unit exist to record pressure data. Operational logs require notification of appropriate personnel should differential pressure drop below the required minimum 0.007-inch H2O readings. Note that the condition

does not require 3-hour block averages of duct static pressure, that requirement is only for non-PTE EUs with add on controls.

Based on data collected as part of the October 18-22, 2021, verification testing, it appears that the Facility is in general compliance with the requirements.

Emission Unit	Facial Velocity - Direction of Airflow	Differential Pressure (inch H2O)
EUCONTAINERLINE	Not Recorded/ Inward	-0.040
EUBALSACORE	1317 ft/min inward	0.020
EUSKINORRAIL	753 ft/min inward	0.020
Requirements	Inward	Minimum of 0.007

- For emission capture systems that are not PTEs (EU197LINE), SC III.8 requires the average gas volumetric flow rate or duct static pressure in each duct between the capture control device and the add on control device inlet in any three-hour period must not fall below the limits established during initial performance testing.

Testing conducted October 18-22, 2021, onsite established a differential pressure of 0.115 inches of H2O for EU197LINE. Records for the referenced coating line shows that the Facility records the differential pressure once each operating shift. The required three-hour block averages are not determined. This was discussed with Mr. G. Shay, who indicated that the Facility is presently evaluating options such as increased operator reporting options or a PLC unit to meet recording requirements.

A review of daily operational logs for June 1-14, 2022, for EU197LINE indicating that the differential pressure for the referenced paint booth had a differential pressure of 0.07 inches of H2O, which is in compliance with the differential pressure of 0.115 inches of water established during the October 18-22, 2021, testing, which would appear to represent a violation of SC III.8. Discussions with Facility staff indicated that the booth was scheduled for a filter change-out and that once the filters had been changed, the differential pressure would return to the appropriate levels. Discussions with AAR staff regarding determination of operational ranges which would allow for differential pressures before and after filter changes.

SC III.9 requires that any coating operation(s) using the emission rate with add-on control options must develop and implement a work practice plan to minimize the organic HAP emissions from the storage, mixing and conveying of materials. At minimum the following elements (or alternative work practices may be applied following approval from US EPA) should be implemented:

- All organic HAP containing coatings, thinners and/or additives, cleaning materials and waste materials must be stored in closed containers.
- Spills of organic HAP containing coatings, thinners and/or other additives, cleaning materials and waste materials must be minimized.
- Organic HAP containing coatings, thinners and/or other additives, cleaning materials and waste materials must be conveyed from one location to another in closed containers or pipes.
- Mixing vessels which contain organic HAP containing coatings and other materials must be closed except when adding to, removing or mixing the contents.
- Emissions of organic HAP must be minimized during cleaning of storage, mixing and conveying

The above referenced work plan was originally drafted in 2008 as Standard Operating Procedures for HAPs. More recently the practices have been outlined in a Work Plan, dated June 28, 2022, which also implements documented verification of proper practices by operators.

If the EU uses an emission capture system and add-on control device, the permittee shall develop and implement a startup, shutdown and malfunction plan (SSMAP) (SC III.10) and must be in compliance with limits associated with SC I.1 at all times except SSM (SC III.11). An approved SSMAP (Rev.#8 dated April 22, 2019) is of record. A general of review of the document indicates that the EU control devices associated FGMACT were operating in compliance with operational variable identified in the SSMAP to be monitored, and included:

Control Device	Normal Operating Range	Instantaneous Reading
RTO	1400 – 1500 degrees F	1529 -1557 degrees F
RTO	2 – 2.5 inches	NR

Note that in compliance with SC III.13, the Facility reports that the RTO temperature monitoring system is operated at all times a coating line is reported to be operating with add-on control options, the exceptions being limited to monitor malfunction and any associated repairs or QA activities as a result of the monitor malfunction. The Facility maintains appropriate records in the form of a chart recorder showing operation of the RTO temperature monitoring system.

Design/Equipment Parameters - Note that the following requirements relate to monitoring equipment, and it is assumed that compliance was determined at the time of permitting or installation and have not been evaluated as part of the July 20, 2022, data review:

- The permittee is required to place the gas temperature monitor and its associated temperature sensor in a position immediately downstream (before substantial heat exchange occurs) and in a location that provides a representative temperature. (SC IV.1 and 2)
- The sensor is required to have a measurement sensitivity of 5 degrees F or 1% of the temperature value (whichever is greater) (SC IV.3).
- SC IV.4 requires the devices used to bypass the RTO (for example switching between EU197LINE and EU197LINENOCTRL) to be either secured in a non-diverting position or to be

equipped with a monitor that the RTO can't be bypassed without creating record showing it was bypassed.

The bypass switches noted at the time of the inspection appeared to be secure, and the facility reports that the appropriate records are generated when bypassed.

Emission capture systems for EU197LINE, EUCONTAINERLINE, EUBALSACORE and EUSKINORRAIL in compliance with SC IV.5 are equipped with a monitoring system using a pressure drop indicator. The sensor is required to be places such that readings are representative (SC IV.8) and accurate of 0.5 inches of water (SC IV.9). Compliance with the two requirements was not determined at the time of the June 15 or July 20, 2022, compliance would have been made some years ago. SCs IV.6, IV.7 relate to flow sensor requirements and are not applicable to the existing system.

Testing - FGMACT requires validation checks and accuracy audits for monitoring equipment associated with emission capture systems and control devices. As the Facility makes use of an RTO temperature sensor, and differential pressure gauges, SC V.3, V.4, VI.13 and VI.14 which apply to flow measurement devices are not applicable at this time.

SC V.1 requires that RTO temperature sensors when being relocated or replaced by validated by comparing the sensor output to a calibrated measurement device, or by comparing the sensor output to a simulated temperature. In addition, SC V.2 requires that accuracy audits of the RTO temperature sensor will be completed quarterly or after each deviation. SC VI.10 requires that the results of each inspection, calibration and validation check for the RTO temperature monitor and sensor will be kept. Facility staff report that a total of three calibrated sensors are used in the combustion chamber, with all calibration checks are done out of house by Pyromation. They also report that activities are conducted in compliance with the referenced permit conditions.

SC V.5 and SC VI.12, require that the differential pressure gauges used to measure the pressure drop for EU197LINE, EUCONTAINERLINE, EUBALSACORE and EUSKINORRAIL undergo initial calibration checks and validation checks before relocating or replacing the devices. Quarterly validation checks are required under V.6 and are reported to be conducted in full compliance with permit limits. Copies were provided on September 8, 2022, for previous quarterly events. The Facility also reports that in-house monthly magnahelic checks are made. The latest checks were conducted May 21, 2022.

In addition, the permittee is required to perform monthly leak checks on the pressure connections (SC VI.15), a pressure of at least 1.0-inches of water column to the connection must yield a stable sensor result for at least 15-seconds. In addition, the sensors are required to be visually inspected by permittee monthly (SC VI.16). With respect to the monthly checks for the pressure connections, the Facility reports that per shift differential pressure checks by operators also act to verify negative pressures, with changes in pressure indicating potential leaks in the pressure connections/lines. Inspections of the pressure sensors themselves are conducted daily by Facility staff. So it appears that though the pressure connection inspections of SC VI.15 are not being met per the condition, the Facility has had in place a more immediate monitoring program that would indicate if an issue with the connections or the gauges themselves had occurred. SC VI.15 has been brought to the attention of the appropriate onsite staff who has indicated that they will be implementing checks and documentation to better meet the ROP requirements.

<u>Monitoring/Recordkeeping</u> – Discussions with Facility Staff indicated that records of all documentation is maintained onsite and meets the minimum record retention period of five years. These records amongst other things include copies of each notification and report submitted to comply with Subpart MMMM (SC VI.1).

In addition, in compliance with FGMACT requirements, the Facility maintains copies of the following records. Availability was confirmed at the time of the June 15, 2022, site inspection, and the data was confirmed as part of the July 20, 2022, data evaluation:

- Current copies of manufacturer formulation data used to determine mass fraction of organic HAP and density of each coating, thinner and/or other additive and cleaning material and the volume fraction of coating solids for each coating. (SC V.1(b))
- The name and mass or volume of each coating, thinner and/or additive and cleaning material used during each compliance period. (SC V.1(e))
- The mass fraction of organic HAP for each coating, thinner and/or additive and cleaning material used during each compliance period. (SC V.1(g))
- The volume fraction of coating solids for each coating used during each compliance period. (SC V.1(g))
- A list of EUS and the compliance option used, as well as the beginning and ending dates and times for each compliance method option used. (SC V.1(c))

Note that this requirement is met in part by the operators logs for coating lines EU197Line and EUCONTAINERLINE, which document activities conducted when the RTO is or is not being bypassed. The information of which is summarized by Facility staff.

- The density for each coating, thinner, and/or additive and cleaning material used during a compliance period. (SC V.1(h))
- The information specified in 40 CFR 63.3930(h)(1) through (3) if an allowance is used in Equation 1 of 40 CFR 63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage and disposal facility. ((SC V.1(i))
- The date, time and duration of each deviation. (SC V.1(j))

For the emission rate <u>without</u> add-on control options, identified in the ROP as EU197LINENOCTRL, EU197LINE, EUCONTRNOCTRL, EUCONTAINERLINE and EUCLEANUP SC VI.1(C) requires the following:

- The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or additives and cleaning materials used each month using Equations 1, 1A through 1C and 2 of 40 CFR 63.3951 and if applicable the calculation used to determine the mass of organic HAP in waste materials (40 CFR 63.3951(e)(4)
- The calculation of the total volume of coating solids used each month using Equation 2 of 40 CFR 63.3951.
- The calculation of the total 12-month rolling total organic HAP emission rate using Equation 3 of 40 CFR 63.3951.

However, EU197LINE and EUCONTAINERLINE though identified in the referenced condition SC VI.1(c), are EUs <u>with</u> an add on control device and would more appropriately be required to meet SC VI.1(d). The calculations referenced above would meet requirements. SC VI.4 which requires

that the permittee demonstrate continuous compliance with the applicable organic HAP emission limit (SC I.1). Records reviewed as part of the July 20, 2022, records review activities indicated that the appropriate calculations were being met.

Coating lines using the "emission rate with add-on control" options (EU197LINE, EUCONTAINERLINE, EUBALSACORE and EUSKINORRAILS) are required to complete the following calculations:

- Calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, including cleaning materials used each month using equation 1 and 1A through 1C of 40 CFR 63.3951. (SC VI.1(d)(i))
- Calculations for the total volume of coating solids used each month using Equation 2 of 40 CFR 63.3951. (SC VI.1(d)(ii))
- Calculations of the mass of organic HAP emission reduction by the emission capture systems and add-on control devices using Equations 1 and 1A through 1D of 40 CFR 63.3961 and Equations 2, 3, and 3A of 40 CFR 63.3961 as applicable. (SC VI.1(d)(iii))
- Calculation of each month's organic HAP emission rate using Equation 4 of 40 CFR 3.3961, (SC VI.1(d)(iv)) and
- Calculation of each 12-month rolling organic HAP emission rate using Equation 5 of 40 CFR 63.3691. (SC VI.1(d)(v))

Records reviewed on July 20, 2022, appeared to indicate general compliance with the mass balance calculations defined in SC VI.1(d). As previously indicated, the Facility utilizes an ACIMS software to determine emission rates. The Facility has indicated that they will obtain formal verification that the proper equations are being used in the ACIMS.

For the emission rate with add-on controls option, the permittee must keep the following records (SC VI.1(k):

- For each deviation, a record of whether the deviation occurred during a period of startup, shutdown or malfunction.

A review of records submitted as part of the annual compliance certification for the Facility March 15, 2022, identified predominantly RTO temperature deviations and the reason for the deviation, in compliance with the above referenced condition.

Additional records reported to be maintained by the Facility includes:

- The records in 40 CFR 63.5(e)(3)(iii) through (v) related to startup, shutdown and malfunction. (SC VI.1(k)(i))
- The records required to show continuous compliance with each operating limit specified in Table 1 of Subpart MMMM. (SC VI.1(k)(iii))
- For EUBALSACORE and EUSKINORRAIL the data and documentation used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR Part 51 for a PTE and has a capture efficiency of 100% as specified in 40 CFR 63.3695(a). (SC VI.1(k)(iv))
- For EU197LINE and EUCONTAINERLINE the data and documentation used to determine the capture efficiency per the requirements specified in 40 CFR 63.3964 and 63.3965(b) through (e). (SC VI.1(k)(v))

- Records of each performance test conducted on the RTO and records of the operating conditions during the performance test conducted under the representative operating conditions. (SC VI.1(k)(vi))

A review of the most recent stack test results (October 18-22, 2021) indicated that the emissions capture systems for EU197LINE, EUBALSACORE and EUSKINORRAIL met the required capture efficiencies, and that the associated test reports appeared October 19-22, 2021, to adequately document the required Method 204 data. EUCONTAINERLINE was tested for capture efficiency on August 22, 2018 and reported meeting the required capture efficiency. Data reported in the associated stack test report appears to be sufficient to meet documentation requirements required to be maintained by Facility.

- A record of the work practice plan required by SC III.7 and documentation that the permittee is implementing the plan on a continuous basis.

Observations made at the time of the June 15, 2022, site inspection indicated that the facility practices work plan practices, meeting the intent of the requirement. In order to be able to provide documentation as requested in the referenced condition, the Facility has created an operator log to be completed per shift to document appropriate practices. These forms appear to meet the record keeping requirements of SC VI.7.

Any coating operations using the emission rate with add-on controls option, the permittee shall demonstrate continuous compliance with operating limits taken from 40 CFR Part 63, Subpart MMMM (SC VI.2) and presented below:

- For the RTO, the average combustion temperature in any 3-hour block average must not fall below the combustion temperature limit established.

In compliance with the condition, the Facility reports collecting combustion temperature data at 1.5-minute intervals and generating the data into 3-hour block averages. In compliance with SC VI.8 and VI.9 the Facility reports that while the coating lines are operating and using the emission rate with add-on controls option, the temperature monitor in the RTO records a minimum of one temperature value for each successive 15-minutes or a minimum of 4 equally spaced successive values for each hour of operation. Those data points are used to determine and record the average of all recorded readings for each successive 3-hour block period. The Facility also reports maintaining the 3-hour average combustion temperature at or above the temperature limit established (1453 degrees F). As previously indicated, the Facility makes use of a continuous chart recorder rather than a PLC to monitor and record RTO operating temperatures. No three-hour block averages are maintained by the Facility, however, it appears that the continuous recording visually showing compliance would meet the requirement.

For EUBALSACORE and EUSKINORRAIL (SC VI.2(b)) the direction of the airflow in the emission capture systems must be into the enclosure at all times, and the average facial velocity of air through all natural draft openings for the enclosure must be either 200 feet per minute or the differential pressure drop must be at least 0.007-inch H2O as established in Method 204.

Data from Verification Testing conducted the week of October 18, 2021, verifies compliance with the referenced requirements and is presented below:

Parameter	EUBALSACORE	EUSKINORRAIL
Facial Velocity (ft/min)	1,317	753
Coating Booth Magnahelic (In H20)	0.020	0.020
Coating Booth Manometer (In H20)	0.015	0.020
Oven Magnahelic (In H2O)	0.015	0.010
Oven Manometer (In H2O)	0.010 – 0.015	0.010
Inward Flow Rate	Yes	Yes
Date(s)	October 20, 2021	October 22, 2021

Compliance is demonstrated by the Facility by maintaining and recording a negative pressure drop across the enclosure. Daily log sheets completed by line operators include documentation of differential pressures across the enclosures. At the time of the June 15, 2022, site inspection, flow into the booth was noted for each operating unit in compliance with permit conditions.

- For EU197LINE and EUCONTAINERLINE, when using the emission rate with add-on control option (SC VI.2(c)) with emission capture systems that are not PTEs must maintain the average gas volumetric flow rate or duct static pressure in each duct between the enclosures and the RTO inlet in any given 3-hour period must not fall below that established during performance testing for each enclosure.

As previously indicated, Facility operators record operating parameters (including volume of coating and hours operated) on a per shift basis. But they do not report on a three-hour average basis. Thus, are not in compliance at this time. It should be noted that the Facility is in the process of evaluating addition of a PLC versus increased handwritten documentation to meet the record keeping requirements.

SC VI.6 limits use of bypass lines to when EU197LINE and EUCONTAINERLINE are operating as EU197NOCONTRL and EUCONTRNOCTRL. When operating with controls, the referenced permit condition requires that the permittee monitor or secure the valve or closure mechanism controlling the bypass in a non-diverting position, so that it cannot be operated without creating a report documenting that it was opened. (SC VI,6(a)) If the bypass line is opened the permittee shall write a description of why the bypass line was opened and the length of time it remained open. The description shall be included in the semiannual compliance report for FGMACT (SC VI.6 (b)). Compliance with SC VI.6 is being met through use of the handwritten operators logsheets.

The logsheets record the type of coating, the shift during which operations were conducted, the length of time the coating operation was conducted, and the status of the bypass. The Facility reports that the only reason that the by-pass status for an EU would be changed is for a change in coatings.

The Facility reports that the bypass mechanism can be secured in such a manner that the bypass can not be accidently opened, and that when the bypass is opened that the time is recorded. It also records when the bypass is closed in compliance with SC VI.11, and SC VI.6. The bypass is a keyed switch under the control of the operator. As previously indicated the log sheets indicate the shift and the number of hours that the EU is operated with or without control devices.

Reporting -

In addition, SC VII.5 and VII.6 requires any coating line reporting organic HAP emission rates for any 12-month compliance period exceeding the limit of 2.6 lbs organic HAP per gallon of coating solids used as a deviation. Data reviewed as part of the July 20, 2022, data evaluation indicated that the Facility was operating in compliance the referenced HAP limit.

SC VII.6 requires for any coating line using the "with add-on controls option" to report as a deviation:

1) any operating parameters outside of the allowed range, as well as

2) any coating system bypass line that is opened during coating operations of EU197LINE or EUCONTAINERLINE and

3) any deviations from work practice standards, including failure to develop or implement a plan, or to keep records required in and specified to be kept for that plan. Data reviewed as part of the July 20, 2022, activities indicated that the Facility in compliance with the permit documents and reports deviations occurring for both EU197LINE and EUCONTAINERLINE.

Per SVII.9, the permittee is required to report the time and duration of any periods of operation during which the RTO was bypassed as part of the semiannual MACT compliance report. A review of the March 15, 2022, semiannual report appears to be prepared focus only on time reported to be operating with add-on control devices. The Facility has indicated that they will add the time the operator ran in bypass of the control device to the revised NESHAP semi-annual reports.

Stack/Vent Restrictions -- no requirements exist under this FG.

Other Requirements -- SC IX.1 is a high-level citation for 40 CFR Part 63, Subpart MMMM for surface coating of miscellaneous metal parts and products by the initial compliance date of January 2, 2007. Requirements under the subpart have been incorporated into the ROP, and compliance with the FG reflects a compliance with the Subpart.

SC IX.2 requires the company to maintain the RTO temperature monitor at all times and have available the necessary parts for routine repairs for the monitor. As previously noted, the Facility reports having 3 temperature sensors for the monitor onsite. In addition, they maintain other routine parts on hand to conduct any inhouse activities that would be required.

FGPARTICULATES

This FG consists of three sources of particulate matter (PM) and are listed as:

- EULMS (equipped with one cyclone collector) and
- EUWOODROOM and EUBALSACORE (both vented to baghouse)

Individual equipment reported to be part of the FG include a router and saw with a cyclone, one horizontal band saw, one vertical band saw, one straight-line rip saw, one trim saw, one belt sander and the EUBALSACORE CNC router. Note that at the time of the June 15, 2022, inspection the router was not operating.

The July 20, 2022, records reviews indicated that there was a dust collector fire in January 2021, and some out of range VEs documented at about that time. The dust collector is documented as having been down for the period of January 18 through April 18, 2022.

Emission Limits - All three EUs of the FG include limits for PM (0.10 lbs/1000 lbs of exhaust)(SC I.1) gases on a dry gas basis and PM-10 for EULMS (0.6 pph) (SC I.2)and for both EUBALSACORE and EUWOODROOM (6.3 pph) (SC I.3) Verification testing was conducted October 19-22, 2021, and indicated the following:

Test Results for EULMS are summarized below:

Test Date	PM (lb/Hr)	PM (lb/1000 lb exhaust gas)
October 19-22, 2021	0.01	0.002
Limit	0.6 (SC I.2)	0.10 (SC I.1)

Test Results for EUWOODROOM &EUBALSACORE are summarized below:

Test Date	PM (lb/Hr)	PM (lb/1000 lb exhaust gas)
October 19-22, 2021	0.12	0.003
Limit	6.3 (SC I.3)	0.10 (SC I.1)

Material Limits – No Material Limits exist for this FG.

Process or Operational Limits – SC III.1 and III.2 require the permittee to have installed and operating a properly a baghouse for EUBALSACORE and EUWOODROOM, and a cyclone for EULMS respectively. Under the ROP the respective control devices are required to be operated within the differential pressure compliant range identified in the AQD MAP (SC III.3 and IX.1). As part of the July 20, 2022, records review, District staff confirmed that records had been kept for the 2021-2022 period to date, however, only the respective logs documented on the June 15, 2022, site visit are being evaluated with respect to the requirements of the MAP.

Emission Unit	Instantaneous Differential Pressure reading (inches of H2O)
EUBALSACORE (router)*	NA*
EUWOODROOM	2
Compliant Range	2-2.5

***The EUBALSACORE router is directed to the EUWOODROOM baghouse. At the time of the June 15, 2022, site inspection, District Staff confirmed that the baghouse is installed and operating properly. Proper operation of control devices in FGPARTICULATES (and compliance with their PM limits) is defined as a differential pressure within the respective compliant ranges. An excursion is a pressure drop reading outside of the range as specified in the MAP. (SC III.5)**

As part of the records review it was noted that in 2021, that there was a dust collector fire and some out of range data at that time. Additional records show that the dust collector was out of commission from January 18 to April 18 2022, and that there was a temporary dust collector in operation. The temporary unit released back into the in plant work environment. When the unit came back on line, they reported that the new bags resulted in <2.0 inches of H2O. As the dust coat forms, they indicated that they anticipated the pressure reading to increase back to normal ranges. Should it be required the Facility reports that the MAP will be revised to reflect changes in the compliant range.

Process or operational restrictions for EULMS include the following:

- The permittee shall not operate EULMS unless the cyclone is installed and operating properly (SC III.2)
- The permittee shall operate EULMS within the compliant range of differential pressure identified in the AQD approved MAP. (SC III.4)

Emission Unit	Instantaneous Reading	Operational Range per MAP
EULMS	4.8	2-6

Proper operation of control devices in FGPARTICULATES (and compliance with their PM limits) is defined as a differential pressure within the respective compliant ranges. An excursion is a pressure drop reading outside of the range as specified in the MAP. (SC III.5) The June 15th, 2022, data shows proper operation.

Upon detecting an excursion or exceedance, the permittee is required to return operation of FGPARTICULATES (including the control device and any applicable emissions capture system) to its normal manner of operation as soon as able to minimize the period of malfunction, and in accordance with good air pollution control practices for minimizing emissions. (SC III.6). Monitoring of VEs and baghouse pressure provide the Facility Staff with the operational status. Ex. of actions taken include bringing in a temporary baghouse while repairs are being made.

Design/Equipment Parameters – In compliance with SC IV.1 the permittee has equipped and maintains each baghouse and cyclone with a differential pressure gauge.

Testing/Sampling - The permittee is required to perform and document weekly non-certified visible emissions (VE) readings from the operating control device stacks for any week in which the EUS operate. (SC V.1). In compliance with the permit condition, Facility staff provided VE observation records in the form of daily operator logs, and weekly records conducted by Facility environmental staff. The records were complete for the period of 2021 – 2022 to date.

Emissions were not reported visible for the period with the exception of VEs were reported present as a result of a dust collector fire and subsequent repairs in January and February 2021. The dust collector was reported to be down for the period of January 18 through April 18, 2022, when a temporary unit which released emissions into the inplant environment was used.

SC V.2 requires that the permittee shall verify PM emission from each exhaust stack of FGPARTICULATES every 5 years by verification testing. Records indicate that the last stack testing event which included verification of particulate (PM) emissions occurred October 19-22, 2021. Test Results for EULMS are summarized below:

Test Date	PM (lb/Hr)	PM (lb/1000 lb exhaust gas)	Differential Pressure
October 19-22, 2021	0.01	0.002	5 inches H2O
Limit	0.6 (SC I.2)	0.10 (SC I.1)	NA

Test Results for EUWOODROOM and EUBALSACORE are summarized below:

Test Date	PM (lb/Hr)	PM (lb/1000 lb exhaust gas)	Differential Pressure
October 19-22, 2021	0.12	0.003	2.2 inches H2O
Limit	6.3 (SC I.3)	0.10 (SC I.1)	NA

Monitoring/Recordkeeping - Requirements under this section focus mainly on the differential gauges used to show proper operation of the control devices (SC III.1 and III.2). Note that the ROP starts this group with No. 7 rather than No. 1. When referenced the conditions will be using the numbers as found in the ROP.

SC VI.7 requires the continuous measurement of the pressure drop across the respective control devices and daily recordkeeping for each day any emission unit in the FG operates. The recordkeeping practices and differential pressure gauges data documented are sufficient to meet the referenced permit condition.

The indicator range for the pressure drop shall be included as part of an approved MAP for FGPARTICULATES. At the time of the June 15, 2022, site inspection, District staff verified that the continuous measurement device in the form of a differential pressure gauge had been installed, and the following data recorded at the time of the inspection:

Emission Unit	Instantaneous Reading	MAP indicator range
EUWOODROOM	2	2 -2.5

The Facility reports that in compliance with SC VI.8, the pressure sensors are located where they will provide representative pressure values, and were installed, tested, leak checked and calibrated per the manufacturer's instructions. Facility representatives report properly maintaining the differential gauges, including keeping necessary parts for routine repair. (SC VI.10)

Recordkeeping required includes not only maintaining monitoring data, but also monitor performance data, corrective actions taken, any written Quality Improvement Plans and any activities taken to implement a quality improvement plan (SC VI.11) The referenced record keeping appears to be complete and in compliance with permit conditions. It should be noted that the QIP is referenced under CAM (40 CFR Part 64.8) and IS a plan developed by the Facility for the improvement of control device performance. No QIP is of record currently.

Reporting - Reporting requirements include semi-annual (SC VII.2) and annual (SC VII.3) compliance reporting as well a prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1) A review of MACES would appear to indicate that required semi-annual, annual and other reporting requirements are of record as having been complete and submitted in a timely manner, in compliance with the ROP.

Each semiannual report of monitoring and deviations is required to include summary information on the number, duration and cause of excursions and/or exceedances and the corrective actions taken. Should there be no excursions or exceedances during the reporting period, than a statement to that effect shall be provided to that effect. (SC VII.4) In addition, the semiannual report shall include a statement regarding monitor downtime and a summary regarding monitor downtime events. (SC VII.5) Recent documents reviewed appear to be completed in compliance with the reporting requirements.

Stack/Vent Restrictions - Exhaust gases from the stacks are required to be discharged unobstructed vertically from the following:

Stack/Vent	Maximum Exhaust (inches	Minimum Height above ground
SVCOMPOSITES (Cyclone)	8	10
Limit	Max diameter 8-inches	Min 7.3 feet above the ground surface

Other Requirements - The permittee is required to implement and maintain a Malfunction abatement and preventative maintenance plan for FGPARTICULATES. The permittee is required to review and update the plan annually and following a malfunction, any updates shall be sent to the AQD for approval. (SC IX.1). As previously noted, the most recent PM/MAP received by AQD is identified as revision no. 8 and is dated April 22, 2019.

SC IX.2 requires the permitee to comply with all applicable requirements of 40 CFR Part 64 also referred to as Compliance Assurance Monitoring (CAM). Requirements under the subpart focus on monitoring of various operational parameters to ensure compliance with permit limits. In compliance with the permit condition, the Facility operates under a CAM Plan for the baghouse PM control dated January 13, 2011. The referenced document relies on weekly VE observations as well as monitoring of differential pressures for both the cyclone and baghouse. The operating ranges as presented in the CAM Plan are also identified on daily operating logs to ensure that operators are aware should there be an operating range excursion, and notify appropriate staff.

SC IX.3 requires the permittee to notify AQD once they have identified a failure to achieve compliance with an emission limit or standard because the approved CAM Plan monitoring activity(ies) did not provide an indication of an excursion or exceedance. If necessary, the permittee shall submit a proposed modification to the CAM Plan to address the necessary monitoring changes.

FG-RULE287(c)

This FG encompasses activities conducted by the Facility under Rule 201 exemption Rule 287(c) which includes coating activities conducted with a dry filter (SC IV.1), totaling less than or equal to 200 gallons as applied (minus water) per month (SC II.1) and maintains records of activities to document status (SC VI.1).

Evaluation of the existing coating activities, and records for 2021 and 2022 to date appear to indicate that coating operations for four different coating lines under 6 different scenarios have been identified by permit, and have been previously discussed. In addition, the Facility conducts touch up activities using preval containers which result in true fugitive emissions and so would not fall under the referenced FG.

In addition, reporting requirements under the FG include annual (SC VII.3) and semiannual (SC VII.2) compliance reporting of monitoring and deviations.

At the time of the June 15, 2022, site inspection, there appears to be some confusion as to whether or not the referenced exemption is being used, and whether or not the exemption should have been added to the ROP during the previous renewal. As previously discussed, the AQD 2015 site inspection report indicated that coating operations for the pallet rings conducted at EU197LINENOCTRL were under the exemption. The Facility confirmed that they had previously been evaluating the referenced EU for coating of pallet rings under the exemption Rule 287(2)(c). The Facility reports that based on discussions with consultants and AQD staff it was determined that pallet rings coating with a zinc-coating would require permitting (PTI 163-07D).

Touch up activities using preval aerosol cannisters onsite are not believed to be conducted under the referenced exemption, they would most likely fall under R287 (2)(b). At the time of the June 15 and July 20, 2022, site inspections the Facility acknowledged that separate records of the amount of coating being used per month via preval was not documented. A documentation strategy is to be developed.

FG-RULE290

This FG covers and emission unit that emits air contaminants and is exempt from the requirements of Rule 201 pursuant to Rules 278 and 290. At the time of the June 15, 2022, site inspection, the Facility was unaware of any EUs or activities that this FG would apply to. Based on records review, it appears that all processes have been identified, and are addressed in the other EUs and FGs associated with the site.

FGCOLDCLEANERS

Requirements under this FG pertain to six cold cleaners (EUCOLDCLEANER1 through EUCOLDCLEANER6) onsite that are exempt from Rule 201 permitting requirements under Rule 281(h). Note that all the cold cleaners are reported to be new units, having been placed into operation on or after July 1, 1979.

The facility reports that none of the cold cleaners are "heated" nor contain halogenated compounds, therefore conditions SC II.1 and VI.1 are not applicable at this time.

Cold cleaners onsite have an air/vapor interface of less than 10 square feet (data provided indicated 7.5 square feet or less), and the emissions are released into the general in-plant environment in compliance with SC IV.1. Each is equipped with a cover, and remains closed when not in use (SC IV.3). The facility reports that some of their cold cleaners have been replaced with small paint cans better minimizing the amount of solvent being used.

Emission Limits – No emission limits are identified for this FG.

Material Limits - SC II.1 restricts the permittee to cleaning solvents containing less than 5% by weight of the following halogenated compounds: Methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform or any combination thereof. As previously noted, the Facility reports no halogenated compounds are used.

Process/Operational Restrictions - Conditions include the requirements that cleaned parts shall be drained for no less than 15-seconds or until dripping stops (SC III.1) and that the permittee shall perform the manufacturer recommended routine maintenance on each cold cleaner (SC III.2) Facility staff report that applicable operational restrictions are followed.

Design/Equipment Parameters - Cold cleaners are required to meet the following:

- Shall be equipped with a device for draining cleaned parts, (SC IV.2)
- Shall be equipped with a cover, and the cover shall be closed whenever parts are not being handled in the cold cleaner, (SC IV.3)
- The cover of a new cold cleaner shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia, agitated or heated (SC IV.4)
- If the Reid vapor pressure of any solvent used in a new cold cleaner is greater than 0.6 psia, or if any solvent used in a new cold cleaner is heated above 120 degrees F then the cold cleaner must comply with at least one of the following provisions:
    - The cold cleaner must be designed such that the ration of the freeboard height to the width of the cleaner is equal to or greater than 0.7
    - The solvent bath must be covered with water if the solvent is insoluble and has a specific gravity of more than 1.0.
    - The cold cleaner must be controlled by a carbon adsorption system, condensation system or other method of equivalent control approved by AQD

Testing/Sampling – No conditions for FGCOLDCLEANERS.

Monitoring/Recordkeeping –SC VI.2, identifies a number of pieces of information that is required to be maintained for each cold cleaner. For MAERS purposes the six EUs are referenced numerically, no serial numbers are associated with the units. Onsite, employees identify each unit by location. As cleaning coating applicators is a principal use, each of the four coating lines has a cold cleaner associated with it.

MAERS ID*	Surface Area (sqft)	Solvent	Other
1	2.8	Denatured alcohol	NA
2	3.7	MAK	NA
3	2.2	FM47 thinner	NA
4	--	FM47 Thinner	1 gallon capacity
5	3.68	acetone	NA

6	7.5	Mineral spirits	Not in use

Note that serial numbers are not associated with the cold cleaners onsite and that each unit is kept closed, so a waste solvent safety hazard evaluation is not required. Reid vapor pressures were determined per an internet web-based tool. Cold cleaners appear to be in general compliance with reid vapor pressure based requirements SC IV.4 and IV.5.

Written procedures are available and visible in appropriate work areas (SC VI.3).

Reporting - Reporting requirements include semi-annual (SC VII.2) and annual (SC VII.3) compliance reporting as well a prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (SC VII.1) A review of MACES would appear to indicate that required semi-annual, annual and other reporting requirements are of record as having been complete and submitted in a timely manner, in compliance with the ROP.

Stack/Vent Restrictions – No restrictions are associated with this FG.

Other Requirements – No other requirements are associated with this FG.

SUMMARY

On June 15 and July 20, 2022, AQD District Staff visited the AAR Mobility Systems (AKA AAR) Facility (B4197) located at 201 Haynes Street, Cadillac, Wexford County, Michigan. The purpose of the site visit was to conduct a site inspection and records review as part of a Full Compliance Evaluation (FCE) for the 2022 Fiscal Year (FY). This document reflects the information obtained during the referenced visits.

The referenced facility is a Major Source and is permitted under Renewable Operating Permit (ROP) Number MI-ROP-B4197-2016C. A ROP renewal application for the Facility was received on March 21, 2021. The permit shield was issued on April 2, 2021.

Gaylord Field Office Staff met with Mr. Greg Shay, Environmental Manager, AAR Mobility Systems.

AAR is a manufacturer of mobility system, mobility-rapid deployment equipment and mobile tactical shelters used by the military. Their website indicates that they offer air mobile containers and palletized systems as part of their product line. In addition to manufacturing new products, AAR also rebuilds/reconditions pallets.

Facility records consist primarily of manufacturer formulation records, operator log sheets and are maintained using an Automated Chemical Information Management System (ACIMS).

Products are reported to be composed of various combinations of aluminum, balsa wood, and fiberglass. Manufacturing processes use a combination of hand application and computer numerical controlled (CNC) equipment. Onsite activities include woodworking, metal preparation and machining, adhesive coating application, gluing, paint application and assembly. The Facility purchases extruded aluminum to process onsite. Coatings and associated additives, cleaners and solvents are limited in number.

PERMITTED EUs – A total of 20 EUs are identified in the ROP EU summary table. In addition, the ROP identifies a total of six FGs

Activity Type/Description	Emission Unit	Pollution Control Device	Flexible Group
Remediation/Scrubber	EUAIRSTRIPPER	NA	NA
Coating line	EU197LINE*	Regenerative Thermal Oxidizer (RTO)	FGCOATINGS FGMACT
Coating line	EUCONTAINERLINE*	RTO	FGCOATINGS FGMACT
Coating line	EU197LINENOCTRL**	NA	FGMACT
Coating line	EUCONTNRNOCTRL	NA	FGMACT
Adhesive Line	EUBALSACORE*	Baghouse vented in plant and RTO	FGMACT FGCOATINGS FGPARTICULATE
Adhesive Line	EUSKINORRAIL*	RTO	FGMACT FGCOATINGS
Cleanup of applicators	EUCLEANUP	RTO except for EU197LINENOCTRL and EUCONTNRNOCTRL	FGMACT FGCOATINGS
Refurbish/Rebuild	EUGRIND/PAINT	Vented into in-plant atmosphere	NA
Wood working	EULMS*	Cyclone	FGPARTICULATE

Woodworking	**EUWOODROOM***	**Baghouse**	**FGPARTICULATE**
Rule 201 exempt	**EURULE290**	**NA**	**FGRULE290**
Rule 201 exempt pursuant to R278 and R287(c)	**EU287(c)**	**NA**	**FGRULE287(c)**
Cold Cleaner	**EUCOLDCLEANER1***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER2***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER3***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER4***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER5***	**NA**	**FG-COLDCLEANERS**
Cold Cleaner	**EUCOLDCLEANER6***	**NA**	**FG-COLDCLEANERS**
Boiler for Heat	**EU500HPBOILER**	**NA**	**NA**

***These EUs have no EU specific conditions in the ROP. Conditions are limited to those for the FG they are associated with.**

****EU197LINENOCTRL was reported to have previously been evaluated for coating of pallet rings under the exemption Rule 287(2)(c). The Facility reports that based on discussions with consultants and AQD staff it was determined that pallet rings coating with a zinc-coating would require permitting (PTI 163-07D).**

EXEMPT EUs – A number of exempt EUs are of record for the facility, these have been identified as:

- Woodworking and metal working equipment in machine shop (Main Building) under R 285(2)(l)(A) and/or (B)
- Bead blaster under R 285(2)(l)(vi)(C)*

- Cold Cleaners under R 281 (2)(h)
- Touch-Up Paints under R 287(2)(b)*** or R285(2)(hh) for hand held aerosol cans
- Small coating projects (<200 gallon as applied, minus water/day) R 287 (2)(c) refer to FG287.
- Wash booth (open tanks in enclosed rooms) under R 285(2)(r)) **

***Note the stack for the bead blaster (SVOXIDECOLLECTOR) is reported to be 12ft high and 18-inches in diameter. The bead blaster was reported as an exempt unit in the ROP Renewal application received in 2021.**

****Referred to as the PII Etch Process, the Facility is in possession of correspondence dated May 14, 2000, confirming eligibility under the referenced exemption.**

*****Touch-up paints are reported to be done using "Preval" applicators. Per Rule 287(2)(b) they need to be no greater than 8 ounces each. Rule 285(2)(hh) exempts hand held aerosol cans from Rule 201 permitting.**

At the time of report preparation, the Facility indicated that they have not previously been maintaining records of the volume of coatings being applied as touch-up using preval applicators. They report that the prevals are filled at the appropriate coating line, and at the time of the inspection it is believed that the coating volume used has been documented as part of the use for the line for that shift. The Facility has indicated that they will be modifying procedures to capture the required information for reporting purposes.

AAR has been determined to have the potential to emit over 100 tons per year of the following criteria pollutants and is a major source of:

- Volatile Organic Compounds (VOCs) and
- Particulate Matter (PM)

In addition, the Staff Report indicates the facility has the potential to emit 10 tons per year or more of any single Hazardous Air Pollutant (HAP) or the potential to emit any combination of HAPS emissions greater than or equal to 25 tons per year. However, site inspection report dated April 2, 2015, indicated that the Facility has accepted production and/or operational limits to limit HAPs to below Major Source thresholds.

The following EUs are subject to Federal Standards:

EMISSION UNIT	40 CFR SUBPART	TITLE
EU500HPBOILER	Part 63, Subpart A and DDDDD	MACT for NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (BOILER MACT)
EU197LINE EU197LINENOCTRL EUCONTAINERLINE	Part 63, Subpart A and MMMM	NESHAP for Surface Coating of Misc. Metal Parts and Products

EUCONTNRNOCTRL EUBALSACORE EUSKINORRAIL EUCLEANUP		

In addition to the previously identified Federal regulations, the AAR Facility has multiple units subject to Compliance Assurance Monitoring (CAM) under 40 CFR Part 64. In general EUs subject to CAM consist of EUS with pre-control emissions of one or more criteria pollutants exceeding 100 tons. There are a limited number of exemptions available to the subpart. In the case of the AAR Facility, proper operation of the RTO under Subpart MMMM is considered presumptively acceptable monitoring in lieu of CAM. Which eliminates the CAM requirement for VOCs for process equipment identified in FGMACT.

documents required of the Facility include the following:

EMISSION UNIT	PERMIT CONDITION	DOCUMENT	MOST RECENT PLAN DATE
EU197LINE, EUCONTAINERLINE, EUBALSACORE, EUSKINORRAIL	SC III.10 (FGMACT)	SSMAP	SSMAP Rev.#8 - April 22, 2019
FGCOATINGS	SC III.4	MAP (RTO)	SSMAP Rev.#8 - April 22, 2019
FGPARTICULATES	SC IX.1	MAP	SSMAP Rev.#8 - April 22, 2019
FGPARTICULATES	SC III.5 IX.3	CAM Plan (Particulates)	January 13, 2011
FGCOATINGS	UNK	CAM Plan (RTO)	December 10, 2020
EU197LINE, EUCONTAINERLINE, EUBALSACORE, EUSKINORRAIL	SC III.9 (FGMACT)	Work Practices Plan	June 28, 2022*

*** Note document was preceded by February 18, 2008, SOP for HAPs and will be revised to meet the 2022 requirements.**

As part of the report preparation process AQD District Staff has been in frequent contact with respect to one or more operational and/or recordkeeping conditions to better determine the compliance status. These issues have been discussed both electronically and verbally with Facility staff as part of the compliance determination. At the time of document preparation, the Facility has indicated that they are in the process of implementing activities appropriate to bringing the Facility in full compliance with permit conditions:

EU or FG	Condition	Issue
FGMACT	SC VI.15 & SC VII.6	Pressure sensor connection inspections and documentation and/or reporting
FGMACT	SC VII.7	Error noted in most recent Semiannual NESHAP report.
FGMACT	SC III.8, SC VI.2 (c) & SC VII.6	3-Hour average duct static pressure not determined/documented and/or reported

These activities include increased monitoring/recordkeeping activities. AQD Staff will follow-up with the Facility in 3-months to verify the appropriate activities have been implemented.

NAME _____ DATE _____ SUPERVISOR _____