

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

B236368342

FACILITY: Standard Coating Inc.		SRN / ID: B2363
LOCATION: 32565 Dequindre, MADISON HTS		DISTRICT: Warren
CITY: MADISON HTS		COUNTY: OAKLAND
CONTACT: Nino Nuculovic , Vice President		ACTIVITY DATE: 07/26/2023
STAFF: Sebastian Kallumkal	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MAJOR
SUBJECT: Inspection to verify compliance with applicable air quality regulations		
RESOLVED COMPLAINTS:		

On Wednesday, July 26, 2023, we, Michigan Department of Environment, Great Lakes and Energy-Air Quality Division staff Sebastian Kallumkal and Owen Pierce, conducted an announced scheduled inspection of Standard Coating Inc. (B2363), located at 32565 Dequindre, Madison Heights, Michigan. The purpose of the inspection was to determine the facility's compliance with the requirements of the federal Clean Air Act (CAA); Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act of 1994, PA 451, as amended, the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart Mmmm-National Emission Standards for Surface Coating of Miscellaneous Metal Parts and Products; 40 CFR 63, Subpart DDDDD-National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters and Renewable Operating Permit (ROP) MI-ROP-B2363-2019.

Standard Coating is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70 (Michigan ROP Program) because its potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

Standard Coating is located in Oakland County which is currently designated by the United States Environmental Protection Agency (USEPA) as an attainment area for all criteria pollutants.

Standard Coating's property is surrounded by Industrial and commercial businesses. The closest residential area is approximately 0.4 miles east of Standard Coating. Red Oaks Waterpark, Red Oaks Dog Park, and Red Run Drain (part of the Clinton River Watershed) are located approximately 0.5 miles south of Standard Coating.

We arrived at Standard Coating, Inc. at about 9:30 AM and met with Nino Nuculovic, Vice President of Operations. Records were requested and received prior to the inspection.

During the pre-inspection meeting, we discussed the records and facility's operations. Standard Coating, Inc. is ISO 9001:2015, the Management System, certified.

Standard Coating Inc. uses electrocoating to apply epoxy coatings to metal parts such as suspension components, control arms, seat backs, battery components for use in the automotive industry. The facility employs approximately 85 employees, operates one shift, Monday through Friday (occasionally Saturday) from 7:00 am to 5:00 pm. The surface coating line includes metal cleaning, phosphate treatment, water rinses and e-coating process with two immersion tanks and a natural gas-fired curing oven. The cleaner HF-2 is used to clean the parts prior to coating. Butyl Cellosolve is added to the immersion tanks along with resin, pigment and water solvent. The facility also has two boilers, one 5 MMBtu/hr (EUBOILER2) installed in 1976 and one Cleaver Brooks, 8.36 MMBtu/hr (EUBOILER5) installed in 2/24/1976.

Facility's e-coating process (EULINE9) is subject to 40 CFR Part 63 Subpart M. The facility uses compliant coating option to meet the HAP emission limits. Some of the materials used in the coatings contains methyl isobutyl ketone. Compliance with NESHAP M is evaluated later in the report.

EGLE-AQD has not received any odor complaint related to facility operations since February 2020. The facility has submitted its annual emissions report (MAERS) timely.

On December 15, 2004, EGLE-AQD received an Initial Notification from Howard Finishing LLC, (previous owner) required in 40 CFR 63.3910(b), stating EULINE9 is subject to 40 CFR Part 63, Subparts A and M because it has the potential to emit more than 10 tons per year of a single HAP (2-Butoxyethanol, Chemical Abstract Service (CAS) No. 111-76-2). EPA amended the list of HAP, effective November 29, 2004, removing the compound 2-Butoxyethanol (CAS 111-76-2) from the group of glycol ethers.

EUBOILER2 and EUBOILER5 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Institutional, Commercial, and Industrial Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and D.

In 2021, Standard Coating installed a powder coating booth controlled by dry filters. Automotive parts such as control arms are coated in this booth. The powder coating provides more durability than liquid e-coating.

We discussed facility's VOC emissions calculations. The 2021 and 2022 VOC calculation spreadsheets showed that the Water based coating VOC content was above the limit of 1.3 pound per gallon of coating minus water as applied (EULINE9, Material Limit; SC II.1). The exceedance was due to calculating these values incorrectly. I explained to him briefly how to calculate this value. (See further discussion SC II.1).

I reminded Nino that the facility's administratively complete ROP renewal application is due between December 7, 2022, and December 7, 2023. He informed me that they are working on it.

He also informed me that they are aware of the option to opt-out of the ROP program by obtaining an HAP Opt-out synthetic minor permit. However, they want to be classified as a major source of HAPs to accommodate for future business growth.

Standard Coating provided an excel spreadsheet of all calculations, Technical Data Sheets and SDS for coatings and cleaner, natural gas usage, Boiler Tune up, Energy Assessment, etc. The document can be found in: S:\Air Quality Division\Staff\Kallumkal, Sebastian\2023 Inspections\ B2363 Standard Coating.

After the meeting, he accompanied us for an inspection of the facility. We visited the powder coating booth. It was not operating at that time. It is operated around 5 hours daily. The parts are moved in a conveyor in the middle of the booth. Powder coating is applied manually. Filter systems are located both sides of the booth. The spent powder is collected and reused. The filter system includes 3 sets of filters including HEPA filters. The first set of filters is replaced every 3 months, HEPA filter is replaced every 6 months and the socks filters are replaced once a year. The emissions from this process are exhausted into the general in-plant area. The coated parts are cured in nearby natural gas fired oven. The booth appears to be exempt from R336.1201-Permit to install requirements per AQD Rule 336.1287(2)(d).

Rule 287. (1) This rule does not apply if prohibited by R 336.1278 and unless the requirements of R 336.1278a have been met

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(a).... An adhesive coating line

(b) A surface coating process that uses only hand-held aerosol spray cans

(c) A surface coating line if all of the following conditions are met...

(d) A powder coating booth and associated ovens, where the booth is equipped with fabric filter control. The fabric filter control shall be installed, maintained, and operated in accordance with the manufacturer's specifications, or the owner or operator shall develop a plan that provides to the extent practicable for the maintenance and operation of the equipment in a manner consistent with good air pollution control practices for minimizing emissions.

Next, we visited the two boilers. I verified the heat input of the boilers. Nino told us that hot water from a nearby tank is fed to these boilers. These boilers appear to be exempt from R201-Permit to Install requirements pursuant to R282(2)(b).

R 336.1282 Permit to install exemptions; furnaces, ovens, and heaters. Rule 282. (1) This rule does not apply if prohibited by R 336.1278 and unless the requirements of R 336.1278a have been met.

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(a)....

(b) Fuel-burning equipment which is used for space heating, service water heating, electric power generation, oil and gas production or processing, or indirect heating and which burns only the following fuels:

(i) Sweet natural gas, synthetic natural gas, liquefied petroleum gas, or a combination thereof and the equipment has a rated heat input capacity of not more than 50,000,000 Btu per hour.

Next, we visited the EULINE9. The coating line tanks are located on an elevated surface. We walked through the railings. The cleaner is used as part of the coating process.

During inspection, he showed us a shot blaster (steel shots) which is used for cleaning the coating racks. The steel shots are collected, and the exhaust is vented into the general in-plant area. The process appears to be exempt from R201- permit to install requirements pursuant to R285(2)(l)(vi)(B).

Rule 285. (1) This rule does not apply if prohibited by R 336.1278 and unless the requirements of R 336.1278a have been met.

(2) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(l) The following equipment and any exhaust system or collector exclusively serving the equipment:

(vi) ...sand blast cleaning, shot blasting, shot peening, ... metals,, or fabric which meets any of the following:

(A) Equipment used on a nonproduction basis.

(B) Equipment that has emissions that are released only into the general in-plant environment.

After that, he accompanied us to another part of the building. He informed us that they intent to install another e-coat line in that area. The area is being cleaned out and remodeled. We discussed how to apply for a permit to install (PTI) for this process and that no installation for the new process shall be done prior to receiving a PTI. I inquired him about the drums in the area. He informed me that they are empty and any waste that was there has been manifested and hauled offsite.

Compliance Evaluation:

MI-ROP-B2363-2019

EULINE9:

SC I.1-2: VOC emissions are limited to 8 pounds per hour and 34.9 tons annually based on a rolling 12-month time period. Reviewed 2021, 2022 and Jan-June, 2023 emission calculations spreadsheet. I informed Nino that he was using the VOC content (lb VOC/Gal coating-water) instead of VOC content with water in calculating the VOC emissions. He recalculated the VOC emissions and submitted it on August 10, 2023. For the time period I reviewed the data, the highest monthly emissions were 5.79 lb/hr in June 2023 and 1.00 tons in September 2022. The total VOC emissions were 9.13 tons in 2022 and 4.46 tons as of June 2023.

SC I.3-10: These conditions limit the organic HAP emission limits pursuant to NESHAP MMMM and provide compliance options. Each limit applies to the type of coating conducted at a facility. Standard Coating performs General Use Coating. The Organic HAP limit applicable to General Use Coating is 2.6 pounds per gallon of coating solids. The NESHAP allows the facility to determine whether the organic HAP emission rate is equal to or less than the applicable emission limit using at least one of the following three options:

- a. Compliant material option,
- b. Emission rate without add-on controls option, or
- c. Emission rate with add-on controls option.

The facility is required to include all coatings, thinners, and/or other additives, and cleaning

materials used when determining the emission rate. The facility is using "Compliant material

option" to meet the HAP limit. The thinner and/or additive and each cleaning material shall not

contain any organic HAP when using Compliant Material Option.

The facility provided SDS and TDS for the resin and pigment used. The pigment Blk Pigment Fd. (CMVI EP) Aqua EC (TM) 2600 EP contains 7% Ethylene glycol monobutyl ether (CAS No.

111-76-2) which is not a listed HAP and 0.3% Methyl isobutyl ketone (CAS No. 108-10-1) which is a HAP. 0.3% is equivalent to 0.034 lb/gallon of pigment which has solids content of 49.1% (5.56 lb solids/gal).

The facility uses a resin, Resin Feed (CM VI EP) AquaEC (TM) 2600 EP, density = 8.82 lb/gal, solids content 38.2% by wt. (3.37 lb/gal) containing methyl isobutyl ketone (MIK) 0.2%, a HAP, and 2,4,7,9-tetramethyl-5-decyne-4,7, diol (CAS No. 126-86-3) which is not a listed HAP. The HAP content of the resin (0.0176 lbs MIK/gal). The facility provided calculations to show compliance with the NESHAP VHAP limit of 2.6 pounds organic HAP per gallon of coating solids. However, the facility calculated lb VOC/gal solids coated which may give a slightly higher value than the actual lb VHAP/gal solids coated. Most of the VHAP in the resin/pigment is VOC. On Thursday, August 3, I sent an email to Nino with information on how to calculate this value correctly and he agreed to correct and resubmit the spreadsheet. On August 10, the facility resubmitted calculations and the highest calculated value was 1.28 lb VOC/gal solids coated in November 2022. This includes VOC content of butyl cellosolve which is not a HAP. The facility did not use the actual HAP content in its calculations. The HAP content of the coating would be much lower and in compliance with the NESHAP limit. In an August 14 email, the facility was reminded again to use the actual HAP content in its calculations. If calculated correctly, the HAP content of the coating would be in compliance with the limit. Therefore, no violation notice is issued at this time for the incorrect calculations.

SC II.1 The facility provided SDS and Technical Data sheet to confirm the VOC content (minus water) of the water-based coatings used. All water-based coatings (as applied) appear to be under 1.30 pounds VOC/ (gal coating minus water). Resin VOC content = 0.2 lb VOC less exempt solvent and pigment VOC content is 2.1 lb/gal less exempt). The facility also uses butyl cellosolve (100% VOC) and alkaline cleaner (HF-2) with 0.52 wt% VOC. The VOC lb/(gal coating-water) calculations in the submitted spreadsheet show that monthly results exceeded the limit. An evaluation the calculations indicated that the facility calculated the values incorrectly for 2021, 2022 and 2023. I recalculated this value for a couple of months in 2022 with weighted average for VOC content, solids content and density and verified that this value is less than the permit limit. The facility uses same resins, pigments and solvents in the coatings all months. Only change is in the usage amount from month to month. The VOC content, as applied, is less than 1.3 pounds per (gal minus water). I explained the calculations to Nino and he agreed to correct the calculations and resubmit the spreadsheet. He recalculated the VOC emissions and submitted it on August 10, 2023. The calculations showed that the lb VOC/gal coating minus water was below the limit. However, the calculation did not seem to be done correctly. In an August 14 email, I sent him an example calculation for the month of Jan 2023 and requested to correct the calculations. From the calculations for the month of Jan 2023, the VOC content appears to be in compliance with the limit. As stated, from the submitted usage and other data, the facility appears to be in compliance with this limit. No violation notice would be sent at this time.

SC II.2 The thinner is mostly water. Also, uses Butyl Cellosolve as thinner/cleaner. EPA has delisted Butyl Cellosolve from the HAP listed. The facility does not use any other HAP containing thinners or additives.

SC III.3 The facility only uses Cleaner HF-2, which is mostly inorganic and does not contain any VHAPs (SDS provided).

SC V.1 The permittee received permission from AQD to use manufacturer data in lieu of performing Method 24 analyses. As stated in the previous reports, this approval documentation can be found in the facility file at the Warren District Office.

SC VI.1-3 The facility provided VOC emission records for the time period since last inspection. The facility is tracking all required records.

SC VI.4-7 The facility appears to be meeting the requirements of the recordkeeping. The facility needs to correct the VOC and HAP emissions reporting as discussed previously. The facility is using the compliant material option.

SC VII.1-5 The permittee submits both annual and semi-annual ongoing compliance reports timely. No deviations reported. The facility uses the complaint material option.

SC VIII. The exhaust stacks for EULINE9 appear to discharge vertically and unobstructed. Stack dimensions not confirmed during this inspection.

FGBOILERS

SC II.1 The permittee only burns natural gas as fuel for FGBOILERS according to Nino.

SC III.1 The permittee provided records of the one-time energy assessment conducted on February 24, 2023, by Hearthside Heating. Previous AQD inspection reports indicated that an energy assessment was conducted in 2019, but records were not found. The report submitted for the February 24, 2023 energy assessment did not appear to meet the specifications required in the NESHAP 5D. I forwarded the "Summary of Energy Assessment Requirement Under the Area Source Boiler Rule" and Webinar slides prepared for 'USEPA Region 1 Webinar: Understanding EPA's Area Source Boiler Rule-Energy Assessment Requirements" to provide guidance on how to conduct energy assessment and prepare the report. Because AQD already sent a violation notice on this matter, another one won't be sent at this time. On August 3, 2023, I sent an email to Nino with information about energy assessment and requested him to follow the guidelines, have an energy assessment done and submit the report by October 3, 2023.

SC III.2 The permittee performs the required tune-ups for EUBOILER2 and EUBOILER5. Also submitted 2-year and 5-year tune up records for the boilers conducted on February 24, 2023.

SC III.3 The permittee has not chosen an alternate way to satisfy work practice standards noted in III.1 and III.2, so this condition does not apply.

SC III.4-5 The facility provided tune up records for EUBOILER5 and EUBOILER2. EUBOILER5, which requires tune up due every 25 month; the last one was serviced in February 2023. EUBOILER 2, which requires tune up every 61 months, was also serviced in February 2023. On September 7, 2022, AQD issued a VN for not conducting a one-time energy assessment and tune up for EUBOILER5. On September 28, 2022, the facility responded that it has scheduled the energy assessment and the tune up for December 2022.

SC III.6 The submitted tune-up records appear to satisfy the requirements stated in condition IX.4a-f.

SC III.8 Initial boiler-tune ups were performed at the issuance of the previous ROP in 2014, before the January 31, 2016 deadline.

SC III.9 According to the response, to a violation letter, received October 22, 2019, the permittee completed the one-time energy assessment required by 40 CFR 63 Subpart DDDDD during the week of October 28, 2019. However, the permittee was unable to provide records of the assessment. It is unclear if the assessment was ever done. Facility provided a report of energy assessment conducted on February 24, 2023. (See discussion for SC III.1).

SC VI.1 The permittee was able to provide records of tune-ups and required notifications and reports required by 40 CFR 63 Subpart DDDDD. Records of 2023 tune up for EUBOILER5 and EUBOILER2 were submitted.

SC VI.2 All records for FGBOILERS available upon request.

SC VII.1-2 The facility reported no deviations.

SC VII.3 The permittee submits the required annual and semiannual compliance reports.

SC VII.4 The permittee submitted an initial Notification of Compliance for each boiler. The reports were received by AQD on March 4, 2014 before the January 31, 2016 deadline.

SC VII.5 The permittee has submitted the follow up ongoing Notification of Compliance reports for EUBOILERS 2 and 5.

SC VII.6 The permittee has included company info, process unit info, reporting period dates, tune-up dates, and responsible official completeness statements in the compliance report. On April 26th, 2021, facility submitted a documentation that on March 17-25, 2021, it conducted tune up and maintenance EUBOILR2. The document dated June 1, 2021, indicated that during April 27 through May 3, 2021, the facility conducted tune up and maintenance for EUBOILER5.

SC VII.7 The permittee submits reports to the EPA via CEDRI.

SC IX.1 The permittee has complied with initial compliance requirements for 40 CFR 63 Subpart DDDDD and has submitted ongoing Notification of Compliance Reports.

SC IX.2 The permittee appears to be in compliance with the work practice standards described in 40 CFR 63.7505(a) by performing the tune-up maintenance on the boilers.

SC IX.3-4, and 6: Neither boiler in FGBOILERS has experienced a lapse in operation to warrant completion of additional tune-ups.

SC IX.5 The permittee keeps records to demonstrate continuous compliance with tune-up requirements.

Conclusion: Standard Coating has not complied with the NESHAP 5D requirement to conduct a one-time energy assessment in a satisfactory manner. The facility must conduct the required energy assessment and submit the report to EGLE-AQD by October 3, 2023.

In its VOC calculations, facility needs to use the VOC content (lb VOC/gal pigment or resin), as packaged instead of VOC lb/(gal less exempt solvents) to get more accurate VOC emission results. The facility shall correctly calculate the VOC content (lb VOC/gal minus water) and submit the records for Jan-September 2023 to AQD by October 31, 2023.

The facility shall use the organic HAP content of the pigment, resin and any other solvents to calculate the lb Organic HAP/gallons solids coated to show compliance with NESHAP MMMM limit (EULINE9, SC I.3) and submit the records for Jan-September 2023 to AQD by October 31, 2023.

NAME Sebastianykallemkal

DATE 08-25-2023

SUPERVISOR Joyce