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

B236373182

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:** 08/21/2024
STAFF: Sebastian Kallumkal	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Annual scheduled inspection to verify compliance with ROP No. MI-ROP-B2363-2019 and MI-ROP-B2363-2024.		
RESOLVED COMPLAINTS:		

On Wednesday, August 21, 2024, I, Michigan Department of Environment, Great Lakes and Energy-Air Quality Division staff Sebastian Kallumkal 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.

MI-ROP-B2363-2024 was issued on August 8, 2024 and has similar requirements as the previous 2019 ROP.

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. Oakland County is located in the Southeast Michigan area which was previously classified as nonattainment for Ozone, but it has since reduced its ambient Ozone concentration levels below the NAAQS and was redesignated to attainment and are called attainment/maintenance areas.

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.

I arrived at Standard Coating, Inc. at about 10:30 AM and met with Nino Nuculovic, Vice President of Operations. Standard Coating, Inc. is an ISO 9001:2015, the Management System, certified.

During the pre-inspection meeting, we discussed EGLE's new electronic notification, permitting, emissions reporting, and compliance software product (MIEnviro Portal) which is called MiEnviro Portal.

We also discussed facility's permit to install application for the installation of a new immersion coating process. The request for a construction waiver was not approved because the new activity has pre-control potential to emit of more than the major source

thresholds for National Emission Standards for Hazardous Air Pollutants (NESHAP) and Prevention of Significant Deterioration (PSD) regulations. I informed him that because the construction waiver was not approved, no activities related to the construction of the process shall be conducted. He told some cleanup activities has begun and offered to show me those during site walk through. The new coating process is an immersion coating which contains zinc for more durability.

We briefly discussed requirements of the ROP. Per the request, he provided me copies of the records.

Standard Coating Inc. uses electrocoating process 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 60 people, operates one 10 hr 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.

Facility provided Equipment Survey for the boilers where the installation dates are taken from. The facility also has two boilers, one 5 MMBtu/hr (EUBOILER2) built in 1978 and installed in 1995 and one Cleaver Brooks, 8.36 MMBtu/hr (EUBOILER5) installed in 1992 and built in 1976. (Manufacture date from the Energy Assessment Report dated March 19, 2024).

Facility's e-coating process (EULINE9) is subject to 40 CFR Part 63 Subpart MMMM. 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 MMMM 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 (SLEIS) 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 MMMM 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 DDDDD.

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.

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/2024 Inspections/ B2363 Standard Coating.

After the meeting, he accompanied me to show the area where the new coating will be located. That area had a coating line previously, but it is long gone. He explained to me that the following items had occurred in preparation for the new coating line installation:

1. Took the interior walls down
2. Took dock doors off
3. Removed electrical, gas and water lines
4. Renewed roof
5. Unloaded new coating line equipment into the east end of the new construction area and is being stored
6. Going to remove mezzanine, old lab and lunchroom
7. Prepare the area for the new process line
8. No installation occurred for the new coating line

I informed him that I will verify if any of these activities would be classified as "preconstruction activities".

Clarification Concerning the Scope of Construction-Related Activities that may Occur prior to Issuance of a PSD Permit (epa.gov)

Excerpts from the memo dated December 13, 1995, by John S. Seitz, Director Office of Air Quality Planning and Standard

Second, Minnesota interprets the Federal PSD rules to not prohibit site clearing activities prior to receiving a PSD permit, but that there is a prohibition on beginning construction activities that are of a permanent nature. The EPA agrees with Minnesota that site clearing and grading are not prohibited by this definition. Allowed preconstruction activities would also include ordering materials and temporary storage on site (see March 1986 memorandum).

Prohibited (permanent and/or preparatory) preconstruction activities under 40 CFR 52.21(b)(i)(1) and (b)(11) would include any construction that is costly, significantly alters the site, and/or permanent in nature. This would include, but is not limited to: (1) excavating, blasting, removing rock and soil, and. backfilling, and (2) installing footings, foundations, permanent storage structures, pipe, and retaining walls. See May 13, 1993 memorandum from John Rasnic to Region III, "Construction Activities at Georgia Pacific"(GP memo); see also November 4, 1993 memorandum from Dave Howekamp to Region IX, "Preconstruction Review and Construction Activities Prior to Permit Issuance.

More guidance can be viewed at Begin Actual Construction | US EPA

I also contacted USEPA Region 5 for guidance about the above activities. Brian Blanchard, EPA Region 5, referred to NSR Guidance/Policy Database on the topic for more information.

After the pre-inspection meeting, we visited the powder coating booth. It was 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. Nino showed me an open hot water tank that feeds the boilers. The open hot water tank is heated using the steam from Boiler 2. The condensed water after heating the coating tanks is fed to this tank prior to be heated in the boilers to generate steam. 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.

The facility also has 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 inspecting the processes, after obtaining his permission, I took a few pictures and video of the area where the new line will be installed. The pictures and videos are located at S:\Air Quality Division\Staff\Kallumkal, Sebastian/2024 Inspections/ B2363 Standard Coating.

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 2023 and Jan-July 2024 emission calculations spreadsheet. The facility used 0.4536 lb VOC/gal coating as the VOC content for pigment. The SDS shows that the VOC content of the pigment is 0.9 lb/gal. I corrected the calculations. The highest monthly emissions were 7.24 lb/hr in September 2023. The annual VOC emission as of December 2023 was 8.02 tons and Jan-July 2024 was 4.25 tons.

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 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.

The submitted records show that organic HAP emission rate is between 0.81 to 1.23 lb VHAP/gal of coating solids. The HAP contents of the coatings (resins, pigments, solvents) are much lower than the VOC content. The facility is using the VOC content of the coatings as the HAP content in its calculations. These values show compliance with the organic HAP limits

SC II.1 The facility provided SDS and coating product 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. 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. The submitted records show that VOC content of the coatings range from 0.77 to 1.14 during 2023 through 2024. I verified these limits for a few months. The calculations appear to be acceptable.

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 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 has met the one-time energy assessment and boiler tune up requirements. The one-time energy assessment report dated March 19, 2024 was submitted.

SC III.2: The permittee appears to be maintaining the boilers in a manner consistent with safety and good air pollution control practices minimizing air pollution.

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 and 5: 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.6-9: Permittee already complied with the initial tune up requirements for both boilers. The facility provided tune up records for EUBOILER5 and EUBOILER2. EUBOILER5, which requires tune up due every 25 month; the last one was serviced on February 24, 2023. EUBOILER2, which requires tune up every 61 months, was also serviced on February 24, 2023. Next tune up for both these boilers are scheduled for September 2024. The Year Built

for Boiler Capacity 8.4 MMBtu/hr (EU-BOILER5) was 1975 and EU-BOILER2 (capacity not provided) was 1976 according to the tune up records. 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. The submitted tune-up records appear to satisfy the requirements of this SC III.6. The boilers are currently being used and operated.

SC VI.1-2- The facility is keeping all records for FGBOILERS as required and are 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.6-7 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 9/16/2024, the facility submitted a documentation that on February 23, 2024, it conducted tune up and maintenance EUBOILR2 and EUBOILER5. 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. The facility appears to be operating the boilers in compliance with the requirements of 40 CFR 63, Subpart DDDDD, the BOILER MACT.

Conclusion: Standard Coating appears to be in compliance with its title V permit, MI-ROP-B2363-2019.

NAME Sebastian Kallemkal DATE 9/16/2024 SUPERVISOR Joyce