

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

P080871058

<b>FACILITY:</b> Rosati Specialties		<b>SRN / ID:</b> P0808
<b>LOCATION:</b> 24200 Capital Blvd., CLINTON TWP		<b>DISTRICT:</b> Warren
<b>CITY:</b> CLINTON TWP		<b>COUNTY:</b> MACOMB
<b>CONTACT:</b> Don Rosati , President and Owner		<b>ACTIVITY DATE:</b> 02/29/2024
<b>STAFF:</b> Adam Bogнар	<b>COMPLIANCE STATUS:</b> Non Compliance	<b>SOURCE CLASS:</b> SM OPT OUT
<b>SUBJECT:</b> Scheduled Inspection		
<b>RESOLVED COMPLAINTS:</b>		

On Thursday, February 29, 2024, Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) employee Adam Bogнар conducted a scheduled inspection of Rosati Specialties located at 24200 Capital Blvd, Clinton Township, MI 48036. The purpose of this inspection was to determine the facility's compliance status with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environment, Great Lakes, and Energy-Air Quality Division (EGLE-AQD) rules; Permit to Install No. 38-17; and Consent Order No. 2018-09.

### Consent Order No. 2018-09

Consent Order No. 2018-09 became effective on June 25, 2018. AQD and Rosati Specialties entered into this agreement to settle the violations noted in the September 12, 2017 violation notice. The violations were issued for operating a major source of VOC without obtaining a renewable operating permit (ROP) or permit to install (PTI). Furthermore, after the facility obtained PTI No. 38-17, the company failed to maintain the appropriate records as required by this permit.

Consent Order No. 2018-09 requires the facility to maintain compliance with Permit to Install No. 38-17, pay a settlement amount, and submit bi-annual VOC/HAP emissions records. Rosati Specialties has paid all penalties currently associated with this consent order. Rosati Specialties has submitted bi-annual records to AQD detailing VOC/HAP emissions. AQD required the consent order to remain in effect for at least 3 years (until July 23, 2021).

### Inspection

I arrived at Rosati Specialties at 9 am. I met with Don Rosati, Owner, Donnie Rosati, employee, and Mala Hettiarachchi, Consultant. I introduced myself and stated the purpose of the inspection. Rosati Specialties was founded in 2000. They are a wood finishing company that serves predominately wood furniture manufacturers. Rosati specializes in flat panel finishing and architectural wood finishing. Customers are predominately furniture manufacturers. There are around 25 employees operating this plant Monday through Friday from 8 am to 5 pm.

**In Building 1**, there are two roll coating lines (EU-Roll Coat) – one stain roll coat line & one ultraviolet (UV) roll coat line, a manual (hand-held) spray booth (EU-Spray Booth), and a 0.5MMBtu/hr boiler to heat the roll coating line ovens. There are two dust collectors (one for each line) to capture emissions from sanding.

In the stain roll coat line, raw wood is first sanded and cleaned. After sanding, parts move down the conveyor where a water-based stain is applied using roll coaters. The freshly painted wood is oven cured. Emissions from the sanding operations are routed to a dust collector.

In the UV roll coat line, parts are only sanded if raw wood is fed, and not if wood is first finished/sanded on the stain line. After going through the sanding station, parts receive the UV roll coat (100% solids). The coated parts are cured in a UV oven. Emissions from the sanding operations are routed to a dust collector.

There is also a 10 gallon capacity acetone reclamation unit (distillation) that, based on my observations, is exempt from the requirement to obtain an air permit per Rule 285(2)(u) since it is less than 55-gallons in size.

**In Building 2**, there are two conveyORIZED spray coating lines and a 0.5MMBtu/hr boiler. EU-Spray Line is a conveyORIZED miscellaneous wood parts coating line consisting of one belt sander, one spray booth machine, one flash-off curing oven, one jetted air infrared curing oven, and one UV oven. The spray booth is equipped with an exhaust filter for particulate control. A shared dust collector controls particulate emissions from the belt sander.

EU-Molding Line is a conveyORIZED miscellaneous wood parts coating line consisting of one brush sander and one spray booth. The spray booth is equipped with an exhaust filter to control particulate emissions. A shared dust collector controls the particulate emissions from the brush sander.

#### **Permit to Install No. 38-17**

##### **EU-Spray Booth**

Section I – Special Condition 1: Limits VOC emissions from EU-Spray Booth to 10 tons per year. This emission limit is met based on the records I reviewed. VOC emissions from EU-Spray Booth were reported highest during the 12-month period ending in March 2022 at 0.428 tons.

Section II – Special Condition 1: Limits the VOC content of coating materials to 6.9 lb/gallon (minus water, as applied). This VOC content limit has not been exceeded based on the records I reviewed. The facility provided a document showing each coating that is sprayed and the VOC content minus water. The highest VOC content coating used during the period I reviewed was “FINISHWORKS - ARISTOVAR 60 GLOSS CONVERSION VARNISH” at 5.88 lb/gallon VOC.

Section III – Special Condition 1: States that all waste materials shall be captured and stored in closed containers. There are two 5-gallon waste collection buckets next to this spray booth – one for water based and one for solvent based coatings. Both buckets had their lids off during my inspection and were approximately ¼ full. I told Don that he needs to equip these buckets with tight fitting lids that remain closed when the waste bucket is not being used. Don sent me a picture after the inspection showing that he has placed a lid on these buckets. I told Don to make sure that all material and waste buckets are covered when not in use. A violation notice was issued for this non-compliance. Rosati provided AQD with a picture after the inspection showing that the issue has been corrected.

Section III – Special Condition 2: States that spent filters shall be disposed of in a manner that minimizes the introduction of air contaminants to the outer air. Don stated that the filters are put into trash bags and thrown into the dumpster.

Section III – Special Condition 3: States that all VOC/HAP containing materials must be handled in a way to minimize fugitive emissions. I observed that paint is stored in closed containers. Acetone is

kept in metal flammable material storage cabinets. The paint mixing/storage areas were organized and I didn't notice open containers in these areas.

Section IV – Special Condition 1: States that the permittee shall not operate EU-Spray Booth unless all exhaust filters are installed. I observed that the booth was equipped with exhaust filters. The filters were installed snugly in the filter scaffold such that there were no gaps that particulate could get through.

Section IV – Special Condition 2: States that the permittee shall equip EU-Spray Booth with high-volume low-pressure (HVLP) applicators or comparable technology with equal transfer efficiency. Don stated that all applicators are air-assisted airless type applicators. Based on my research, air-assisted airless applicators have identical transfer efficiency to HVLP applicators. No pressure test caps are necessary for air-assisted airless applicators because the applicators run at ambient pressure (40-200 CFM air flow rate on average).

Section V – Special Condition 1: States that the permittee shall determine the VOC content, water content, and density of any coating as applied and as received, using Method 24. The facility received prior written approval from the AQD district supervisor to use manufacturer's formulation data when determining VOC content of coatings. This approval was granted under the condition that at least 5 frequently used and an additional 5 random solvent based coatings be Method 24 tested annually. This approval was granted on March 27, 2018 and expires on December 31, 2025. After December 31, 2025, the facility must submit an additional request to continue to use manufacturer's formulation data to determine VOC content.

Mala sent me records showing that two coatings were sent for Method 24 testing in 2023 – "E29C8710+K FinishWorks" and "Milesi Products". E29C8710+K FinishWorks represents four different products with differing gloss levels. E29C8710+K FinishWorks is the product used with the highest VOC content. Milesi Products is a new product. The Method 24 testing showed a lower VOC content than the manufacturer's formulation data, so the facility will continue to use the manufacturer's formulation data to determine VOC content.

The reason the facility didn't test 10 different VOC based coatings is the facility almost exclusively uses water-based coatings. Based on the records I reviewed, less than 10 VOC based coatings were used in 2023 facility-wide. The facility has sent 2 VOC based coatings for Method 24 analysis a year since 2018. AQD has accepted these analyses as showing compliance with this condition. The records show that this facility has performed a Method 24 analysis on 12 different products since 2018.

Section VI – Special Condition 1,2,3: Specifies recordkeeping requirements for EU-Spray Booth. The facility is required to keep records of the gallons of each material used (and reclaimed if applicable), the VOC content of each material as applied, and the monthly and 12-month rolling VOC emission rate. I verified that these records are kept. Chemical composition data is maintained on-site in a binder and in the emissions spreadsheets.

### **EU-Roll Coat**

Section I – Special Condition 1: Limits VOC emissions from EU-Roll Coat to 25 tons per year. This emission limit is met based on the records I reviewed. VOC emissions from EU-Roll Coat were reported highest during the 12-month period ending in December 2023 at 17.149 tons.

Section I – Special Condition 2: Limits Acetone emissions from EU-Roll Coat to 14 tons per year. This emission limit is met based on the records I reviewed. Acetone emissions from EU-Roll Coat were reported at 8.155 tons for each 12-month period in 2023. Don stated that Acetone is only used to clean the machines after each days work, which results in nearly identical usage each day. Monthly acetone emissions are calculated by dividing the annual purchase amount by 12. This is not an acceptable way of accounting for acetone emissions. This condition requires monthly recordkeeping of actual usage. Dividing the annual purchase amount by 12 is essentially annual recordkeeping, not monthly. Furthermore, the usage must be based on actual usage, not amounts purchased. Rosati Specialties must keep monthly records of actual Acetone usage going forward. A violation was sent to Rosati Specialties for failing to keep proper records of acetone usage.

Section I – Special Condition 3: Limits VOC emissions to 8 lbs per 1,000 square feet of coated finished product from natural finish hardwood plywood panels. This emission limit is met based on the records I reviewed. Rosati keeps records of the total VOC emitted each day along with the total surface area of finished panels from this process. These two values are used to calculate the daily VOC emissions per 1,000 square feet of wood panel produced. VOC emissions per 1000 square feet of wood panel was reported highest on July 14, 2023 at 7.21 lb VOC per 1,000 square feet of wood panel. In general, VOC emissions per 1,000 square feet of wood panel are reported lower than this, usually below 1 lb. July 14, 2023 was the only day where this value was relatively close to the emission limit.

Section II – Special Condition 1: States that the permittee shall only use natural finish hardwood plywood panel finishes on EU-Roll Coat as defined in R336.1114(a). I explained to Don that “natural finish hardwood plywood panel” means a panel that has its original grain pattern enhanced by essentially transparent finishes frequently supplemented by fillers and toners. Don stated that only this type of panel is coated on EU-Roll Coat.

Section III – Special Condition 1: States that the permittee shall capture all waste materials and store them in closed containers. I observed that waste materials are stored in closed containers.

Section III – Special Condition 2: States that the permittee shall handle all VOC containing materials in a manner to minimize fugitive emissions. I observed that fresh paint was stored in closed containers. The paint mixing laboratories were organized and I did not observe any open containers that were not in use.

Section IV – States that the permittee shall not operate any of the belt sanders in EU-Roll Coat unless their respective dust collectors are installed, maintained, and operated in a satisfactory manner. I observed that the exhaust from all belt sanders are routed to one of two dust collectors. Both dust collectors were operating during my inspection and were equipped with Magnahelic pressure gauges that display the pressure drop across the filter bed. The stain line dust collector gauge read 1” of water, and the gauge indicates the pressure drop should be between 1” and 1.2” of water. The UV line dust collector gauge read 3” of water, and the gauge indicates the pressure drop should be between 1” and 3” of water.

Both dust collectors are located outside behind the Building 1. I didn’t notice any dusty material on the ground near the dust collectors. Don stated that the material collection hoppers are emptied and replaced twice a day.

Section V – Special Condition 1: States that the permittee shall determine the VOC content, water content, and density of any coating as applied and as received, using Method 24. The facility received prior written approval from the AQD district supervisor to use manufacturer’s formulation data when determining VOC content of coatings. This approval was granted under the condition that at least 5 frequently used and an additional 5 random solvent-based coatings be Method 24 tested annually. This approval was granted on March 27, 2018 and expires on December 31, 2025. After December 31, 2025, the facility must submit an additional request to continue to use manufacturer’s formulation data to determine VOC content.

Mala sent me records showing that two coatings were sent for Method 24 testing in 2023 – “E29C8710+K FinishWorks” and “Milesi Products”. E29C8710+K FinishWorks represents four different products with differing gloss levels. E29C8710+K FinishWorks is the product used with the highest VOC content. Milesi Products is a new product. The Method 24 testing showed a lower VOC content than the manufacturer’s formulation data, so the facility will continue to use the manufacturer’s formulation data to determine VOC content.

The reason the facility didn’t test 10 different VOC based coatings is the facility almost exclusively uses water-based coatings. Based on the records I reviewed, less than 10 VOC based coatings were used in 2023 facility-wide. The facility has sent 2 VOC based coatings for Method 24 analysis a year since 2018. AQD has accepted these analyses as showing compliance with this condition. The records show that this facility has performed a Method 24 analysis on 12 different products since 2018.

Section VI – Special Conditions 1,2,3: Specifies recordkeeping requirements for EU-Roll Coat. The facility is required to keep records of the gallons of each material used (and reclaimed if applicable), the VOC content of each material as applied, and the monthly and 12-month rolling VOC emission rate. I verified that these records are kept. Chemical composition data is maintained on-site in a binder and in the emissions spreadsheets.

Section VI – Special Condition 4: Specifies acetone recordkeeping requirements. The permittee is required to keep records of the gallons of each acetone containing material used (and reclaimed if applicable), the acetone content of each material used, and the monthly and 12-month rolling Acetone emission rate. I verified that these records are kept; however usage was not tracked in an acceptable manner (see discussion above under Section I - Special Condition 2). A violation notice was sent to Rosati Specialties for failing to keep monthly records of acetone usage. Chemical composition data is maintained on-site in a binder and in the emissions spreadsheets.

Section VI – Special Condition 5: States that the permittee shall keep the following information on a daily basis for EU-Roll Coat: The total gallons and VOC content of each material applied to unfinished product, the total surface area of coated finished product, and VOC emission calculations determining the daily emission rate in pounds per 1,000 square feet of coated finished product. I verified that these records are kept. I reviewed this calculation and associated records and agree with the methodology used.

Section VIII – Specifies stack dimension requirements. I did not verify stack heights or diameters during this inspection. All stacks I observed were exhausted vertically upwards to the ambient air. I observed that both dust collectors are exhausted to the general in-plant environment as required.

**FG-Building2**

FG-Building2 consists of two conveyORIZED miscellaneous wood parts spray coating lines – EU-Spray Line & EU-Molding Line. All spray booths are permitted to be equipped with exhaust filters. There is a shared dust collector for the sanding processes.

Section I – Special Condition 1: Limits VOC emissions from FG-Building2 to 15 tons per year. This emission limit is met based on the records I reviewed. VOC emissions from EU-Roll Coat were reported highest during the 12-month period ending in August 2022 at 10.25 tons.

Section I – Special Condition 2: Limits Propylene glycol n-butyl ether emissions from FG-Building2 to 10.4 tons per year. According to the records I reviewed, none of this material was used in 2022 or 2023.

Section II – Special Condition 1: Limits the VOC content of materials used in EU-Spray Line to 2.5 lb/gallon (minus water, as applied). This VOC limit has not been exceeded based on the records I reviewed. The material sprayed in EU-Spray Line with the highest VOC content was “Sirca Coating”, with a VOC content of 2.08 lb/gallon (minus water).

Section II – Special Condition 2: Limits the VOC content of materials used in EU-Molding Line to 6.9 lb/gallon (minus water, as applied). This VOC limit has not been exceeded based on the records I reviewed. The material sprayed in EU-Molding Line with the highest VOC content was “Canfast Light 10 Sheen Varnish”, with a VOC content of 4.88 lb/gallon (minus water).

Section III – Special Condition 1: States that the permittee shall capture all waste materials, store them in closed containers, and dispose of them properly. There are 5-gallon buckets located under each of the spray booths that continuously collect overspray from the conveyor belt. There is a scraper located under the conveyor that continuously scrapes excess paint from the belt into the buckets. The buckets are operated with the lid open, but they are located inside a clear Plexi-glass compartment underneath the spray line. The reclamation process would not function if a lid were put onto these buckets. When these buckets fill up, the paint is re-used in the spray line. This appears to be an acceptable practice. I observed that all other waste materials in FG-Building2 are stored in closed containers. Don stated these containers are periodically picked up by a hazardous waste hauler.

Section III – Special Condition 2: States that the permittee shall dispose of spent filters in a manner which minimizes fugitive emissions. Don stated that operators place the filters in a plastic bag and throw them in the dumpster.

Section III – Special Condition 3: States that the permittee shall handle all VOC containing materials in a manner to minimize fugitive emissions. I observed that fresh paint was stored in closed containers. The paint mixing laboratories were organized and I did not observe any open containers that were not in use.

Section IV – Special Condition 1: States that the permittee shall not operate the spray booths in FG-Building2 unless all exhaust filters are installed and maintained in a satisfactory manner. I observed that exhaust filters were installed on all booths in Building 2.

Section IV – Special Condition 2: States that the permittee shall not operate any of the sanders in FG-Building2 unless the dust collector is installed, maintained, and operated in a satisfactory manner. I observed that the sander unit was vented to a dust collector. The dust collector was running at 2.25” of water. The Magnahelic gauge indicated that pressure should be maintained between 2” and 4” of water.

Section IV – Special Condition 3: States that the permittee shall equip all spray booths in FG-Building2 with high-volume low-pressure (HVLP) applicators or comparable technology with equal transfer efficiency. Don stated that all applicators are air-assisted airless type applicators. Based on my research, air-assisted airless applicators have identical transfer efficiency to HVLP applicators. No pressure test caps are necessary for air-assisted airless applicators because the applicators run at ambient pressure (40-200 CFM air flow rate on average).

Section V – Special Condition 1: States that the permittee shall determine the VOC content, water content, and density of any coating as applied and as received, using Method 24. The facility received prior written approval from the AQD district supervisor to use manufacturer’s formulation data when determining VOC content of coatings. This approval was granted under the condition that at least 5 frequently used and an additional 5 random solvent based coatings be Method 24 tested annually. This approval was granted on March 27, 2018 and expires on December 31, 2025. After December 31, 2025, the facility must submit an additional request to continue to use manufacturer’s formulation data to determine VOC content.

Mala sent me records showing that two coatings were sent for Method 24 testing in 2023 – “E29C8710+K FinishWorks” and “Milesi Products”. E29C8710+K FinishWorks represents four different products with differing gloss levels. E29C8710+K FinishWorks is the product used with the highest VOC content. Milesi Products is a new product. The Method 24 testing showed a lower VOC content than the manufacturer’s formulation data, so the facility will continue to use the manufacturer’s formulation data to determine VOC content.

The reason the facility didn’t test 10 different VOC based coatings is the facility almost exclusively uses water-based coatings. Based on the records I reviewed, less than 10 VOC based coatings were used in 2023 facility-wide. The facility has sent 2 VOC based coatings for Method 24 analysis a year since 2018. AQD has accepted these analyses as showing compliance with this condition. The records show that this facility has performed a Method 24 analysis on 12 different products since 2018.

Section VI – Special Conditions 1,2,3: Specifies recordkeeping requirements for FG-Building2. The facility is required to keep records of the gallons of each material used (and reclaimed if applicable), the VOC content of each material as applied, and the monthly and 12-month rolling VOC emission rate. I verified that these records are kept.

Section VI – Special Condition 4: Specifies recordkeeping requirements for propylene glycol n-butyl ether used in EU-Spray Line. Based on the records I reviewed, this material has not been used at the facility in recent years. The 2022 and 2023 12-month rolling data shows 0 emissions. None of the materials on the facility’s material list claim to contain this material.

Section VIII – Specifies stack dimension requirements. I did not verify stack heights or diameters during this inspection. All stacks I observed were exhausted vertically upwards to the ambient air. I observed that the dust collector is vented to the general in-plant environment as required.

**FG-DGME**

Section I – Special Condition 1: Limits Dipropylene glycol monobutyl ether (DGME) emissions to 5.2 tons per year. This emission limit is met based on the records I reviewed. The records show that this material was only used on a few occasions in 2023. There is only one product used in the last two years that contains this material – “Sher-Wood Super Roll Base”, at a concentration of 6%. Dipropylene glycol monobutyl ether emissions were reported highest during the 12-month period ending in December 2023 at 0.002 tons.

Section VI – Specifies recordkeeping requirements for FG-DGME. The facility is required to keep records of the gallons of each DGME containing material used (and reclaimed if applicable), the DGME content of each material as applied, and the monthly and 12-month rolling DGME emission rate. I verified that these records are kept.

**FG-FACILITY**

Section I – Special Condition 1 & 2: Limits individual HAP emissions to 8.9 tons per year and aggregate HAP emissions to 22.4 tons per year. These emission limits have not been exceeded based on the records I reviewed. Aggregate HAP emissions were reported highest during the 12-month period ending in September 2022 at 2.798 tons. I did not evaluate individual HAP emissions because aggregate HAP emissions were below 8.9 tons.

Section V – Special Condition 1: States that the permittee shall determine the HAP content of all materials using manufacturer’s formulation data. Don stated that manufacturer’s formulation data is used to determine HAP content.

Section VI – Specifies recordkeeping requirements for FG-FACILITY. The facility is required to keep records of the gallons of each HAP containing material used (and reclaimed if applicable), the HAP content of each material as applied, and the monthly and 12-month rolling HAP emission rate. I verified that these records are kept.

**Compliance Determination**

Rosati Specialties failed to maintain monthly records of acetone emissions in EU-Roll Coat. This is a violation of PTI No. 38-17, EU-Roll Coat, Special Condition VI.4. A violation notice was issued for this non-compliance

The facility failed to capture waste from EU-Spray Booth in closed containers. This is a violation of PTI No. 38-17, EU-Spray Booth, Special Condition III.1. Don provided a picture after my inspection showing that lids had been put onto these containers. A violation notice was issued for this non-compliance.

Based on my inspection and record review, the facility is in compliance with all other requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; and Michigan Department of Environment, Great Lakes, Energy-Air Quality Division (EGLE-AQD) rules; and Permit to Install (PTI) No. 38-17.

NAME Adam BognerDATE 3/21/2024SUPERVISOR K. Kelly