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

N579057279

FACILITY: REGAL FINISHING COMPANY, INC.		**SRN / ID:** N5790
LOCATION: 3927 BESSEMER RD, COLOMA		**DISTRICT:** Kalamazoo
CITY: COLOMA		**COUNTY:** BERRIEN
CONTACT: Rick Hildebrand , Quality Manager		**ACTIVITY DATE:** 03/10/2021
STAFF: Matthew Deskins	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Announced / Scheduled Inspection due to the COVID-19 Pandemic		
RESOLVED COMPLAINTS:		

On March 10, 2021 AQD Staff (Matt Deskins) went to conduct a scheduled inspection of the Regal Finishing (RF) (SRN: N5790) facility located in Coloma, Berrien County. The inspection was scheduled due to work protocols related to the COVID-19 Pandemic whereas normally they are unannounced. Staff had scheduled to meet with the facility contact (Rick Hildebrand – Quality Manager) at approximately 10:30 a.m. According to district file records RF is an opt-out (Synthetic Minor) source for VOCs and HAPs and they have one air permit (PTI No. 336-96A) issued to them by the AQD for 15 paint booths and 3 drying/curing ovens. The intent of staff's inspection was to determine the facilities compliance with the air use permit as well as any other state or federal air regulations. Staff departed for the facility at approximately 9:15 a.m.

Staff arrived at the RF facility at approximately 10:20 a.m. Prior to entering the facility, staff took a few minutes of see if there were any visible emissions or if any odors could be detected coming from the facility and none were noted. Staff then proceeded into the shipping area since office entrance appeared to be closed due COVID precautions. Upon entering the shipping area, staff noticed a stand set up with a COVID questionnaire along with hand sanitizer. Staff began to fill out the questionnaire when Rick came out to greet staff. After staff filled out the questionnaire, staff followed Rick into the office area where he then took staff's temperature. After that staff was cleared to continue with their visit and Rick led staff to a table in the entrance area where staff began by asking some general questions about the facility operations. The following is a summary of staff's discussion with Rick regarding facility operations and it will be followed by the special conditions of PTI No. 336-96A and their compliance status with them.

According to Rick, no new coating booths have been added since staff's last inspection in 2016 and they still have the 15 spray booths and 3 cure ovens as mentioned in the air permit. Rick said that they did change one of the booths (Booth 2) into an adhesive coating operation. He said that all the spray-painting equipment was removed from it and that they basically are just using the booth to exhaust the fumes when applying the adhesive. The adhesive is manufactured by 3M and is called 3M Adhesion Promoter 4298UV and is for a Honda automotive part (See attached SDS). Rick said that they also refer to that booth now as the Honda Assembly Area. Staff then asked how much adhesive is used and Rick said that they haven't even used a gallon of it since the beginning of the year. After staff looked at the AQD PTI exemptions, staff informed Rich that they could use the AQD Rule 287(c) permit exemption for that operation as long as they document on a monthly basis that the adhesive use is under 200 gallons per month. Rick said that shouldn't be an issue. Staff then asked if they still had the Vaccuum Metalizers to which Rick said that they did. There are five total and they basically just use the two new units with

one of the three older units is used minimally. As mentioned in previous inspection reports, the process basically consists of the coating material being placed in the vacuum chambers along with the part to be coated. The coating is then vaporized onto the part. The vacuum metallizers are self-contained and there are no stacks or vents related to the process.

Staff then asked about business and Rick said that last year was really tough and that they were losing a lot of money. He said that business appears to be slowly picking up this year and hopefully it will continue. Staff then asked about their current number of employees and work schedule. Rick said that they currently have about 24 full time employees but are hoping to hire more. As for the work schedule, they work one shift Monday through Friday from 8:00 a.m. until 4:30 p.m. and work weekends as needed. Staff had noted that the number of employees has dropped over 50% when compared to one of staff's earlier inspections when they had 51 employees. Rick said some of this is related to the slower business but also to the fact that they are still cross training employees so they can do multiple things, thus limiting the number of people they have to have on payroll. Staff then asked what types of parts they coat at the facility and he stated the parts are still similar to what they've always done. Rick said the majority are components for the automotive and agricultural sectors with very limited work related to appliances, medical equipment, insulators for electrical conductors, etc. Rick said that one of the newer jobs that they coat are the Charge Station Covers for Tesla electric vehicles.

Staff then proceeded to ask Rick about each individual booth, oven, metallizer, etc. and then went out on a tour of the facility. The following describes the emission units as well as what staff observed during the walk through.

Paint Booth 1 (Rod End Line) and Paint Booth 2 (Honda Assembly Area) at one time had been set up as identical painting systems. But as mentioned earlier, Booth 2 was changed into Adhesive Booth that is now referred to as the Honda Assembly Area as noted where it used to be called the Vintage Line. Paint Booth 1 is equipped with an automatic paint sprayer and the parts go by on a chain rolled conveyor system and then into a drying oven. Neither Booth 1 nor Booth 2 were in use during staff's inspection and Rick stated that they still hardly use Booth 1. He said that booth hasn't been used in over a year and the job that it was used for had gone over seas. Booth 1 is equipped with a water curtain for particulate control. Booth 2 basically just has a table in it with a hooded duct over it to exhaust the fumes out the stack when doing the adhesive application.

Paint Booth 15 is a manual spray paint operation and is equipped with a water curtain for particulate control. It wasn't in use during staff's inspection.

Paint Booth 17 and Paint Booth 18 are still housed together in one room that they refer to as the Clean Room. It is totally enclosed and each booth is equipped with a robotic sprayer. Staff noted that there were filters on the doors and both booths had water curtains inside of them for particulate control. Booth 17 was not in use and Booth 18 was being programmed for an upcoming job during staff's inspection.

Paint Booth 16 is also designated as the Front 7400. This paint booth used to be equipped with a rotary table paint sprayer and Rick said that the equipment was removed. They haven't used this booth in years and it wasn't in an type of operation during staff's inspection.

Drying Oven 1 is also designated as the Ring Oven. It was currently in use and it is a low temperature bake oven. Staff noted it was still equipped with a digital temperature recorder instead of a paper chart recorder. It was operating at 170 degrees F. Staff asked how long it takes to cure the parts and Rick said it depends on the coating specs. He said it still typically ranges between 15 minutes and 2 hours.

Paint Booth 12 is still just a manual hand spray paint booth. Previously it had been designated as Ring Basecoat and was equipped with an axial sprayer. The axial spray nozzle would run back and forth on a bar while the part being painted is stationary below it. The booth is equipped with a water curtain for particulate control. The booth wasn't in use during staff's inspection.

Paint Booth 11 is the same type of booth as Paint Booth 12 and it is equipped with a water curtain for particulate control. Previously Booth 11 had been designated Ring Topcoat. It was in use during the inspection coating a copper coating on parts (Battery Compartment Doors).

Paint Booths 9 and 10. These 2 booths are separate but are enclosed in one room. Painting is done robotically in Booth 9. The booths are equipped with water curtains for particulate control. Rick said Booth 10 is still not used very much and is mainly used when they need to blow off parts. Neither was in use during the inspection.

Drying Oven 2 is also designated as the Michigan Oven. It was in use and operating at 170 degrees F. Like Drying Oven 1, it is also still equipped with a digital temperature recorder instead of a strip chart recorder.

Paint Booth 14 is also designated as the Big Paint Machine. Rick mentioned that it is still hardly used and that it is only used to blow particulate matter off of parts with compressed air, which they don't even do that much in it anymore. It was not in use during the inspection.

Paint Booth 13 is also designated as the Deco. It operates by a chain rolled conveyor with a rotary spraying system (2 sets of rotating spray guns). Parts may be air dried or taken to a cure oven to be baked depending on the coating used. It is equipped with a water curtain for particulate control. Rick said that they don't use it very often. He said when used, it still is only once or twice a day for 5 to 10 minutes. It was not in use during the inspection.

Drying Oven 3 is also designated as the Flow Coat Oven. It was in use and operating at 180 degrees F. It is also still equipped with a digital temperature recorder instead of a strip chart recorder.

Paint Booth 6 is now designated as the Ring Topcoat. In the past it had been designated as Back 7400 that had a rotary table sprayer but it had been removed. It was not in use during the time of inspection and it is equipped with a water curtain for particulate control.

Paint Booth 7 is also designated as Charlie's Machine. It uses an axial paint application process and is equipped with a water curtain for particulate control. It was not in use during the inspection.

Paint Booth 8 is also designated as the Flow Coater. Parts are placed under a trough which runs back and forth over the parts applying the coating. It is equipped with an infrared tunnel to flash off the parts prior to going be placed into the Flow Coat Drying Oven 3. It was in use during the inspection and it was coating Instrument Ring Gauges.

Vacuum Metallizers – Staff did not observe any of the five in operation during the inspection and their operation was explained previously.

Staff then proceeded with Rick to an office to view records. Once at the office, staff mentioned the conditions of the permit and that it would probably be easiest to just go through them one by one. The following lists the Special Conditions (SC) of PTI No. 336-96A and what staff noted:

1. The volatile organic compound (VOC) emission rate from the plastic parts coating process consisting of fifteen (15) spray paint booths and three (3) ovens, hereinafter "process" shall not exceed 84.0 pounds per hour nor 63.0 tons per year, based upon a 12-month rolling time period as determined at the end of each calendar month.

AQD Comment: Appears to be in COMPLIANCE. Staff viewed the records from the most recent 12-month time frame (January 2021) that they had the emissions calculated for and they indicated the VOC emissions were 20.80 tons. The hourly emission rate was calculated to be 19.56 pounds per hour.

2. The acetone emission rate from the process shall not exceed 13.3 pounds per hour nor 13.5 tons per year, based upon a 12-month rolling time period as determined at the end of each calendar month.

AQD Comment: Appears to be in COMPLIANCE. Staff viewed the records from the most recent 12-month time frame (January 2021) that they had the emissions calculated for and they indicated the Acetone emissions were 7.74 tons. The hourly emission rate was calculated to be 6.36 pounds per hour.

3. The volatile organic compound (VOC) emission rate from the use of clean-up solvents shall not exceed 15.6 tons per year, based upon a 12-month rolling time period as determined at the end of each calendar month.

AQD Comment: Appears to be in COMPLIANCE. Staff viewed the records from the most recent 12-month time frame (January 2021) that they had the emissions calculated for and they indicated emissions at 0.98 tons.

4. The emissions of hazardous air pollutants (HAPs) as defined pursuant to Section 112(b) of the Clean Air Act, shall be less than 8.9 tons per year for any individual HAP or 22.4 tons per year for any combination of HAPs at this stationary source. This annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month.

AQD Comment: Appears to be in COMPLIANCE. Their highest single HAP is Toluene at 1.10 tons and combined HAPs was 2.66 tons.

5. The VOC content of the coatings as applied in the process for painting plastic parts shall not exceed 5.0 pounds of VOC per gallon of coating (minus water) as applied.

AQD Comment: Appears to be in COMPLIANCE. The facility uses a job shop sheet for each customer order and as part of their QA process it contains the mix ratio for the coating being applied on it. Before this ratio is mixed they calculate the VOC content to make sure it is under 5.0 pounds per gallon minus water. Staff did not take a sample of any coatings during this inspection but the AQD has taken them in the past and found them to be in compliance with the limit.

6. Applicant shall keep a separate record for each calendar month of the following for the process:

AQD Comment for SC A1 through A4 Below: Appears to be in COMPLIANCE. They keep track of this by the job sheets just mentioned earlier which they then enter into their monthly spreadsheets for doing the emission calculations. They also have quite a few binders of SDS sheets on the various coatings they may use.

A. For each coating sprayed, record the following on a monthly basis:

1. The coating identification and associated coating category.

2. The total volume used, in gallons, of each coating and reducer.

3. The pound of VOC per gallon of each coating and reducer, as received and as applied.

4. The coating to reducer mixing ratio.

AQD Comment for SC B1 through B4 Below: Appears to be in COMPLIANCE. The facility is maintaining this information on the spreadsheet mentioned under SC A1 through A-4 above.

B. Monthly calculation of the following for process HAPs:

1. Monthly calculation of each individual HAP emission rate in tons per month by process

2. Monthly calculation of aggregate HAPs emission rate in tons per month for all processes at the facility.

3. Monthly calculation for each individual HAP determining a 12-month rolling time period emission rate in tons per year.

4. Monthly calculation of aggregate HAPs determining a 12-month rolling time period emission rate in tons per year.

C. The total hours of operation.

AQD Comment: Appears to be in COMPLIANCE. The facility keeps track of hours of operation.

D. The amount, in gallons, of clean-up and/or purge solvents used.

AQD Comment: Appears to be in COMPLIANCE. According to records they use up to 55 gallons of clean-up (B Mask Wash) per month. They used to use between 110 and 165 gallons per month but Rick said that since the "7400" work went away as mentioned earlier, use of the Mask Wash dropped considerably.

E. The amount, in gallons, of acetone used.

AQD Comment: Appears to be in COMPLIANCE. They keep track of this by monthly purchase records and records reviewed by staff showed they use at most 55 gallons per month. Rick said the use of Acetone also dropped considerably when they lost the "7400" work.

All records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request.

7. Applicant shall keep a separate record for each calendar month of the VOC and acetone emission calculations determining a calendar month emission rate in tons per month, and a 12-month rolling time period emission rate in tons per year. All records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request.

AQD Comment: Appears to be in COMPLIANCE. The facility is calculating the above emissions.

8. The VOC content of any coating as applied and as received shall be determined using federal Reference Test Method 24. Upon prior approval of the District Supervisor, Air Quality Division, VOC content may alternatively be determined from manufacturer's formulation data.

AQD Comment: Staff will Consider them to be in COMPLIANCE at the present time. Staff discussed this condition with Rick and he stated that he would have to discuss it with his boss to see if it was fiscally feasible. He went on to say that sometimes they may use a coating for a particular job and then never use it again and it could get pretty costly. Staff mentioned to possibly just look into testing two of their most used coatings but if they determine that it isn't feasible or too costly in their opinion, then they can submit a request to staff's supervisor to use manufacturer's formulation data. He said he would look into things.

9. Applicant shall not operate the process unless the dry filters/or wash water systems are installed and operating properly.

AQD Comment: Appears to be in COMPLIANCE. All painting operations are equipped with dry filters and/or water curtains. Any painting operations in use during the inspection had these installed and they appeared to be operating properly.

10. The disposal of collected waste coatings and solvents shall be performed in a manner which minimizes the introduction of air contaminants to the outer air.

AQD Comment: Appears to be in COMPLIANCE. Staff will have to assume the facility is disposing of wastes properly. Rick said that they still use Heritage for their waste disposal but may look to change to Superior in the future.

11. The exhaust gases from the process shall be discharged unobstructed vertically upwards to the ambient air at exit points as described below.

AQD Comment: Appears to be in COMPLIANCE. All painting or drying operations were equipped with vertical exhaust stacks.

12. All coatings applied in the process shall be applied utilizing high volume low pressure (HVLP) applicators or equivalent technology with comparable transfer efficiency. All applicators shall be properly installed, maintained and operated according to manufacturer's specifications.

AQD Comment: Appears to be in COMPLIANCE. Staff noted that HVLP applicators are used.

13. Applicant shall maintain a current listing of the manufacturer's formulation data for each coating.

AQD Comment: Appears to be in COMPLIANCE. As mentioned earlier, the facility has quite a few binders containing SDS for the coatings they may use.

Table I. (Stack Information)

STACK #	Height (ft)	Diameter (ft)
001	23	1.5
002	23	1.5
003	25	2.5
004	23	1.67
005	24	0.5
006	23	1.5
007	23	1.5
008	23	1.0
009	23	2.67

010	23	2.0
011	24	3.5
012	24	2.0
013	25	0.5
014	25	0.83
015	23	3.5
016	23	2.0
017	23	2.0
018	23	3.5

AQD Comment: **Appears to be in COMPLIANCE. The stack diameters and heights appear to meet these requirements.**

INSPECTION SUMMARY: **Staff will consider the facility to be in COMPLIANCE with PTI No. 336-96A at the present time. Staff thanked Rick for his time and departed the facility at approximately 12:15 p.m.**

NAME Matt Dark DATE 3-18-21 SUPERVISOR RIL 3/22/21