

B 3037
Manilla

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B303744704

FACILITY: FITZGERALD FINISHING LLC		SRN / ID: B3037
LOCATION: 17450 FILER, DETROIT		DISTRICT: Detroit
CITY: DETROIT		COUNTY: WAYNE
CONTACT: Amanda Davison , Environmental Health and Safety Coordinator		ACTIVITY DATE: 06/12/2018
STAFF: Jorge Acevedo	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT:		
RESOLVED COMPLAINTS:		

COMPANY NAME : Fitzgerald Finishing
FACILITY ADDRESS : 17450 Filer, Detroit, MI
STATE REGISTRAT. NUMBER : B3037
SIC CODE : 3479
LEVEL OF INSPECTION : PCE
DATE OF INSPECTION : 6/12/18
TIME OF INSPECTION : 2:49 PM
DATE OF REPORT : 7/1/18
REASON FOR INSPECTION : Targeted Inspection.
INSPECTED BY : Jorge Acevedo
PERSONNEL PRESENT : Amanda Davison
FACILITY PHONE NUMBER : 313-368-3630 x 228
FACILITY FAX NUMBER : 313-368-6210

FACILITY BACKGROUND:

Fitzgerald Finishing is a coating facility. Fitzgerald focuses on coating small metal parts. Fitzgerald Finishing has been operating since 1957 and is located South of Davison, East of Mound, North of McNichols, and West of Van Dyke, in Detroit.

INSPECTION NARRATIVE:

On June 12, 2018, I conducted a targeted inspection of Fitzgerald Finishing. Prior to entering the facility, I drove around the facility at approximately 1:10PM. Skies were clear and winds were out of the South. I did not detect any offsite odors while performing odor surveillance. I met with Amanda Davison, Environmental Health and Safety Coordinator and Larry Gutowsky, General Manager, at 1:25PM. I explained that the purpose of my visit was to conduct an inspection to determine Fitzgerald Finishing's compliance with Part 55, Air Pollution Control, of ACT 451(Natural Resources and Environmental Protection Act), the federal Clean Air Act, and Permit 403-99C. Fitzgerald applied and received an updated permit, 403-99C, to increase their VOC emission limit and to install a new thermal oxidizer.

We went into Fitzgerald Finishing's conference room and discussed Fitzgerald Finishing's operations and equipment. Ms. Davison explained some of the changes that occurred at Fitzgerald since the last inspection in 2014. She explained that the oxidizer had a manufacturer defect which caused major damage to the oxidizer in 2017. The company was able to use their old oxidizer during the time the main oxidizer was out of commission for repairs. Ms. Davison explained that there were no other big changes that occurred since the last inspection. She said that they installed a new cleaning line and removed a manual coating line. After our discussion of Fitzgerald Finishing's equipment and operations, we proceeded to conduct the inspection.

We began the inspection at the south end of the facility. I observed the oxidizer and it was operating at the time of the inspection. I did not observe any opacity at the time of the inspection. I observed the operating temperature and it read 1548°F. After observing the oxidizer, we went back inside the facility. I observed Lines 9 and 10. I also observed

some shotblast equipment which was not running at the time of the inspection. . Parts are shot blasted if needed to remove paint. There was no excessive shotblast media outside collection barrel. The machine is vented to a dust collector which is not vented externally.

Next, we went to the paint storage area. The area was kept clean and I did not observe any lids open on any of the paint storage containers. I observed Fitzgerald's current inventory of coatings and solvents. I did not detect strong coating or solvent odors while in the paint room. I did not observe excessive spills in the paint storage room.

Next, I observed Line 7 and Line 8 next. They were both operating at the time of inspection. Next, we observed Line 1, Line 2, and Line 3. I stopped and observed one of the lines for awhile as it in the process of coating parts. The coating process usually takes around forty-five minutes. Parts are loaded into the dip spin line, coated, and then the parts are baked in the oven. The oven temperature ranges from 250-520 F° depending on the engineering standard of the part.

Next, I observed the phosphate cleaning line which had two cleaning tanks. The cleaning lines use a phosphate cleaner for 90% of the parts before they are coated. The phosphate helps the coating adhere better to the part. The washing process takes around 45 minutes to complete. I observed the clarifier and filter press as well. Ms. Davison explained that they installed a new cleaning line, which was the fourth one and was identical to the other three lines.

We went back to the conference room to discuss the inspection. Ms. Davison provided records for 2016 and 2017. Ms. Davison said that he would be in contact with Andy Rusnak of Derenzo and Associates to send me the 2018 records. I explained to Ms. Davison and Mr. Gutowsky that after reviewing records, there appeared to be emission limit exceedances for the facility. I said I would be writing a Violation Notice for the exceedance and for running the coating line without the oxidizer during the malfunction. The malfunction did lead to approximately 6 tons of VOC which caused several rolling time periods to exceed the 54 ton per year limit for VOCs for the facility. I explained the process of responding to the Violation Notice and let them know that they could contact me in the future if they had any questions. I left the facility at 3:15 PM.

COMPLAINT/COMPLIANCE HISTORY:

There have not been any citizen complaints registered against Fitzgerald Finishing.

OUTSTANDING CONSENT ORDERS:

None

OUTSTANDING LOVs

None

OPERATING SCHEDULE/PRODUCTION RATE:

PROCESS DESCRIPTION:

Fitzgerald Finishing coats small metal parts, such as fasteners. Coating takes place in any of ten "Dip/Spin" lines. Each line consists of a Dip/Spin cabinet and a curing oven. Inside the cabinet at the bottom is a pot of coating. Also inside is a basket, located above the pot. The small metal parts to be coated are conveyed into the cabinet and fall into the basket. The pot, which is half full with coating, is raised until the basket is submerged in the coating. The pot is then lowered so that the basket is out of the coating, but not out of the pot. The basket is then spun to shake off the excess coating. The dip/spin cycle lasts about a minute. The parts are then conveyed into the curing oven. The curing temperature is from about 300 ° F to about 600 ° F depending on the coating. Curing can take up to 45 minutes. The pots and baskets are not cleaned on site. Fitzgerald Finishing has a supply of clean pots and baskets on hand when

different coatings are used in the same line.

EQUIPMENT AND PROCESS CONTROLS

Lines 9 and 10 are located in the southern end of the building. This portion of the building was added on later. Line 4 is located at the northern end, along with the two cleaning lines. The cleaning lines consist of alkaline baths, acid baths and rinse tanks. The cleaning operation is exempt from a permit to install via Rule 290. In the middle portion of the building are Lines 1, 2, 3, 7, and 8.

The following conditions apply to: FG-DIPSPINS

DESCRIPTION: Eight (8) miscellaneous metal parts coating lines controlled by either RTO1 or RTO2.

Emission Unit ID: EU-DIPSPIN1, EU-DIPSPIN2, EU-DIPSPIN3, EU-DIPSPIN4, EU-DIPSPIN7, EU-DIPSPIN8, EU-DIPSPIN9, EU-DIPSPIN10

POLLUTION CONTROL EQUIPMENT: RTO1, RTO2

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Compliance Determination
1. VOCs	54.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG-DIPSPINS	NONCOMPLIANCE- Records were received and reviewed. VOC emissions exceeded 54.0 tpy on 12 month rolling time period for the following time periods: June 2017-March 2018
2. Heavy aromatic solvent naphtha (CAS No. 64742-94-5)	157.6 lb/day	Calendar day	FG-DIPSPINS	NONCOMPLIANCE- Records were received for 2017 and 2018 year to date. Emissions were above the permit limit for April 24-28, 2017.
3. Cumene (CAS No. 98-82-8)	969.5 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-DIPSPINS	COMPLIANCE- Records were received for 2017 and 2018 year to date. Emissions were below the permit limit.
4. Dibasic ester family (CAS Nos. 627-93-0, 106-65-0, 1119-40-0)	19,714 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-DIPSPINS	COMPLIANCE- Records were received for 2017 and 2018 year to date. Emissions were below the permit limit.

5. Ethyl methylbenzene (CAS No. 611-14-3)	969.9 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-DIPSPINS	COMPLIANCE- Records were received for 2017 and 2018 year to date. Emissions were below the permit limit.
6. Ethyl toluene - mixture (CAS No. 25550-14-5)	969.9 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-DIPSPINS	COMPLIANCE- Records were received for 2017 and 2018 year to date. Emissions were below the permit limit.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

The permittee shall capture all waste materials and shall store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. (R 336.1224, R 336.1702(a))

NONCOMPLIANCE- Some containers containing waste materials were opened.

The permittee shall handle all VOC and / or HAP containing materials, including coatings, reducers, solvents and thinners, in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. (R 336.1205(3), R 336.1224, R 336.1702(a))

Compliance- Coatings were kept in closed containers.

IV. DESIGN/EQUIPMENT PARAMETERS

The permittee shall not operate FG-DIPSPINS unless an RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC capture efficiency of 80 percent (by weight), a minimum VOC destruction efficiency of 95 percent (by weight), maintaining a minimum temperature of 1450°F, and a minimum retention time of 0.5 seconds. (R 336.1205, R 336.1702(a), R 336.1910)

Compliance- Destruction efficiency was tested during May 2015 to determine if the repaired oxidizer was still meeting the destruction efficiency. Test results indicated that destruction efficiency was at greater than 95%.

The permittee shall not exhaust more than six emission units in FG-DIPSPINS to an RTO at any time. The permittee may bypass the RTO for individual emission units when those emission units are applying coatings which contain less than 0.15 pounds of VOC per gallon (minus water), as applied. (R 336.1205, R 336.1702(a), R 336.1910)

Compliance- Fitzgerald Finishing keeps records on bypass emissions on a daily basis.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

The permittee shall determine the VOC content, water content, and density of any coating as applied and as received, using federal Reference Test Method 24. Upon prior approval by the AQD District Supervisor, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the permittee shall use the Method 24 results to determine compliance. (R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))

Compliance- Many of the coatings MSDS do not indicate that whether Method 24 was used.

2. Within 180 days after commencement of trial operation, the permittee shall verify the VOC capture and destruction efficiency for both RTO1 and RTO2, from FG-DIPSPINS by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1205, R 336.1702, R 336.2001, R 336.2003, R 336.2004)

Compliance- Testing occurred in May 2015.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205, R 336.1225, R 336.1702)

Compliance- Calculations are performed every day and monthly and there is a summary produced every month for the current month and past 11 months.

The permittee shall install, calibrate, maintain and operate in a satisfactory manner a temperature monitoring device in the combustion chamber of the RTO to monitor and record the temperature on a continuous basis, during operation of FG-DIPSPINS. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205, R 336.1702(a))

Compliance- Fitzgerald Finishing maintains a monitor which continuously monitors the combustion temperature of the RTO.

The permittee shall maintain a current listing from the manufacturer of the chemical composition of each coating, reducer, and clean-up solvent, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225, R 336.1702)

Compliance- Fitzgerald Finishing maintains a current list of coatings, reducers, and clean up solvents used at the facility.

4. The permittee shall keep the following information on a monthly basis for the FG-DIPSPINS:
 - a. Gallons (with water) of each coating, reducer, and clean-up solvent used.
 - b. VOC content (minus water and with water) of each material as applied.
 - c. Each emission unit operated in bypass mode including the date and bypass times.
 - d. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - e. VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.
 - f. Hourly records of emission units connected to the RTO, and the total number of emission units connected to the RTO.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205, R 336.1702(a))

Compliance- Fitzgerald Finishing maintains records on gallon usage, VOC content of cleanup solvents, VOC content of each coating, and reducer on a daily basis. At the end of the month the emission data is summarized for the current month plus the new rolling 12 month emission totals are calculated. Fitzgerald Finishing keeps records on bypass emissions on a daily basis.

5. The permittee shall keep the following information on a daily basis for the FG-DIPSPINS:
 - a. Gallons (with water) of each heavy aromatic solvent naphtha (CAS No. 64742-94-5) containing material used.
 - b. Where applicable, the gallons (with water) of each heavy aromatic solvent naphtha (CAS No. 64742-94-5) containing material reclaimed.
 - c. The heavy aromatic solvent naphtha (CAS No. 64742-94-5) content (with water) in pounds per gallon of each material used.
 - d. Heavy aromatic solvent naphtha (CAS No. 64742-94-5) mass emission calculations determining the daily emission rate in pounds per calendar day.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all

records on file and make them available to the Department upon request.¹ (R 336.1225(1))
Compliance- Records are being kept for specific component containing material.

6. The permittee shall keep the following information on a monthly basis for the FG-DIPSPINS:
 - a. Gallons (with water) of each cumene (CAS No. 98-82-8), dibasic ester, ethyl methylbenzene (CAS No. 611-14-3), and ethyl toluene - mixture (CAS No. 25550-14-5) containing material used.
 - b. Where applicable, the gallons (with water) of each cumene (CAS No. 98-82-8), dibasic ester, ethyl methylbenzene (CAS No. 611-14-3), and ethyl toluene - mixture (CAS No. 25550-14-5) containing material reclaimed.
 - c. The cumene (CAS No. 98-82-8), dibasic ester, ethyl methylbenzene (CAS No. 611-14-3), and ethyl toluene - mixture (CAS No. 25550-14-5) content (with water) in pounds per gallon of each material used.
 - d. Cumene (CAS No. 98-82-8), dibasic ester, ethyl methylbenzene (CAS No. 611-14-3), and ethyl toluene - mixture (CAS No. 25550-14-5) mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - e. Cumene (CAS No. 98-82-8), dibasic ester, ethyl methylbenzene (CAS No. 611-14-3), and ethyl toluene - mixture (CAS No. 25550-14-5) mass emission calculations determining the annual emission rate in pounds per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ (R 336.1225(1))

Compliance- Records are kept on a monthly basis. Records were received.

VII. REPORTING

Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of the backup RTO for FG-DIPSPINS. (R 336.1201(7)(a))

Compliance- Notice was provided.

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/ Dimensions (inches)	Minimum Height Above Ground (feet)	Compliance Determination
SV-RTO1	36	45	Undetermined- The stack height and diameter appeared to be the appropriate height and diameter.
SV-RTO2 (backup)	36	45	
SV-LINE3-BP (bypass)	16	25	
SV-LINE4-BP (bypass)	16	25	
SV-LINE7-BP (bypass)	16	25	
SV-LINE8-BP (bypass)	16	25	
SV-LINE9-BP (bypass)	16	40	
SV-LINE10-BP (bypass)	16	40	

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to: FGFACILITY

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.

Emission Unit ID: NA

POLLUTION CONTROL EQUIPMENT: RTO1, RTO2

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Compliance Determination
1. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	
3. Formaldehyde (CAS No. 50-00-0)	1,283 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-DIPSPINS	Compliance- Formaldehyde emissions are calculated and are below emission limit.
4. Naphthalene (CAS No. 91-20-3)	7,759 lb/yr	12-month rolling time period as determined at the end of each calendar month	FG-DIPSPINS	Compliance- Naphthalene emissions are calculated and are below emission limit.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

The permittee shall determine the HAP content of any material as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. (R 336.1205(3))

Compliance- Fitzgerald Finishing keeps records of the gallons of each HAP containing material each month. Fitzgerald Finishing does not reclaim any HAP containing material. Fitzgerald Finishing keeps track of the HAP content of each HAP containing material used. Fitzgerald Finishing calculates individual and total HAPs on a monthly basis and on a 12 month rolling basis.

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. (R 336.1205(3), R 336.1225)

Compliance- Calculations are being done and were submitted.

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1225)

Compliance- Fitzgerald Finishing maintains MSDS for each coating, reducer, and clean up solvents. HAP coating is determined by manufacturer's formulation data. Fitzgerald Finishing maintains a list of all their coatings, reducers, and clean up solvents with VOC content and HAP content.

3. The permittee shall keep the following information on a monthly basis for FGFACILITY:

- a. Gallons or pounds of each HAP containing material used.
- b. Where applicable, gallons or pounds of each HAP containing material reclaimed.
- c. HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
- d. Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
- e. Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. (R 336.1205(3))

Compliance- Records are kept and were submitted on request.

4. The permittee shall keep the following information on a monthly basis for FGFACILITY:

- a. Gallons or pounds of each formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) containing material used.
- b. Where applicable, gallons or pounds of each formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) containing material reclaimed.
- c. Formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) content, in pounds per gallon or pounds per pound, of each material used.
- d. Formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) emission calculations determining the monthly emission rate of each in pounds per calendar month.
- e. Formaldehyde (CAS No. 50-00-0) and naphthalene (CAS No. 91-20-3) emission calculations determining the annual emission rate of each in pounds per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request.¹ (R 336.1225(2))

Compliance- Records are kept and were submitted on request.

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

Other equipment not covered in the PTI

The two boilers are exempt under R 336.1282(b)(i). Each has a heat input of less than 10 mmBTU/hr and each was installed before June 1989 and therefore is not subject to the Federal NSPS for boilers. (40 CFR 60 Subpart Dc).

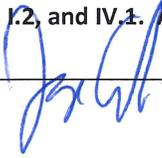
APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:
Fitzgerald Finishing is paved.

MAERS REPORT REVIEW

Fitzgerald Finishing submits MAERS every year and is not fee subject facility. Because of their opt-out permit, they are required to submit MAERS.

FINAL COMPLIANCE DETERMINATION:

The facility appears to be in compliance with most applicable regulations. The exception being PTI 403-99D, Special Conditions I.1, I.2, and IV.1. A Violation Notice was sent on September 24, 2018.

NAME  DATE 9-21-18 SUPERVISOR W.M.